Health Services and Policies for Women Sanitation Workers in Delhi, 2008-2018

Thesis submitted to Jawaharlal Nehru University

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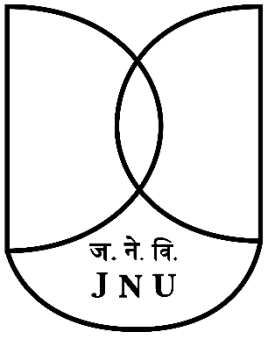
DOCTOR OF PHILOSOPHY

Payal Vidhuri



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DECLARATION

I, PAYAL VIDHURI, hereby declare that the thesis entitled **"HEALTH SERVICES AND POLICIES FOR WOMEN SANITATION WORKERS IN DELHI, 2008-2018"** submitted by me under the supervision of Dr. ANUJA, in partial fulfilment for the award of the degree of Doctor of Philosophy at the Centre for the Study of Social Exclusion and Inclusive Policy, School of Social Sciences, Jawaharlal Nehru University, is my original work and has not been previously submitted in part of full for the award of any other degree of this University or any other University.

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CERTIFICATE

We recommend that this thesis be placed before the examiners for evaluation.

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I

DEDICATE

THIS

TO

MY DEAREST

AND

MOST RESPECTED

PARENTS

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Acknowledgments

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Payal Vidhuri

ABSTRACT

Health is a vital component of safety, security, and the well-being of humankind. One of the most persistent concerns today is the provision of adequate health care for its citizens. Additionally, the right to health and living in a dignified environment are fundamental human rights. Health care is the most crucial aspect of a person's living standard and has a big impact on their health. It gives protection from a variety of health risks. A life without health care exposes an individual to various health issues caused by their environment.

Furthermore, their unfavorable and unsanitary living conditions expose them to a variety of health problems. In India, especially among women, the population's health status, especially among the women sanitation workers, is still a cause for concern . The purpose of the study was to understand more about the health services and policies available to women sanitation employees. The study further focused on understanding the extent of availability and accessibility and the challenges women encounter, and the benefits they receive. Based on primary data, the current study intends to investigate the socio-economic conditions of women satiation workers in Delhi and their health issues. A total of 200 permanent and temporary workers from two Karol bagh and Civil lines in Delhi were interviewed for this study. These two areas were chosen because they had a higher concentration of MCD workers. Finding shows manual handling and a lack of protective clothing/equipment, which resulted in direct contact with trash, were associated with numerous health concerns. This study provides a comprehensive picture of the health problems affecting women sanitation workers and their facts, problems, and solutions. Findings from the study will be helpful for programs and academicians, researchers, policy makers, and social workers working in the field of women sanitation workers.

Key words: Sanitation workers, Working environment, Occupational Health, Health status, Treatment pattern

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ABBREVIATIONS

ASHA	ACCREDITED SOCIAL HEALTH ACTIVISTS
CRSP	CENTRALLY-SPONSORED RURAL SANITATION PROGRAM
DMC	DELHI MUNICIPAL CORPORATION
DMC	DELHI MUNICIPAL CORPORATION
HIV	HUMAN IMMUNODEFICIENCY VIRUS
JSY	JANANI SURAKSHA YOJANA
MAY	MAHILA ADHIKARITA YOJANA
MCF	MAHILA CREDIT FINANACE
MOH	MINISTRY OF HEALTH
MSW	MUNICIPAL SOLID WASTE
MSY	MAHILA SAMRIDHI YOJANA
NCSK	NATIONAL COMMISSION FOR SAFAI KARAMCHARI
NGO	NON-GOVERNMENTAL ORGANISATION
NHRC	NATIONAL HUMAN RIGHT COMMISSION
NRHM	NATIONAL RURAL HEALTH MISSION
NSLRS	NATIOANL SCEHME FOR LIBERATION AND REHABILIATION OF SCAVENGER
NSKFDC	NATIONAL SAFAI KARAMCHARI FINANCE DEVELEOPMENT CORPORATON
NUHM	NATIONAL URBAN HEALTH MISSION
OHS	OCCUPATIONAL HEALTH AND SAFETY
PMGKP	PRADHAN MANTRI GARIB KALYAN PACKAGE
PMJAY	PRADHAN MANTRI JAN AROGYA YOJNA
SC/ST	SCHEDULED CASTE/SCHEDULED TRIBE
SDG	SUSTAINABLE DEVELOPMENT GOAL
SHG	SELF HELP GROUPS
SJ&E	SOCIAL JUSTICE & EMPOWERMENT
SKA	SAFAI KARAMCHARI ANDOLAN
SUY	SWACHHTA UDYAMI YOJANA
ULB	URBAN LOCAL BODIES
UNDP	UNITED NATION'S DEVELOPMENT PROGRAMME
UPA	UNITED PROGRESSIVE ALLIANCE

VAMBAY	VALMIKI AMBEDKAR MALIN BASTI AWAS YOJNA
VAMBAY	VALMIKI AMBEDKAR AWAS YOJANA
WHO	WORLD HEALTH ORGANISATION

Chapter-1

Introduction

"Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing and medical care and necessary social services..."

-Article 25 of the UN Declaration of the Human Rights

The thesis explores health services and policies for women sanitation workers and their implementation at different levels. The indispensability of good health cannot be overstated. This means efforts to attain a 'good life' cannot be practical without having good health. Having said so, it is essential to define what good health means. It must be noted that good health means not only good physical health but also good mental health. According to World Health Organisation (WHO), "Mental health is described as an appropriate balance between the individual, their social group, and the larger environment. These three components combine to promote psychological and social harmony, a sense of well-being, self-actualization, and environmental mastery".[1]

The preamble to the charter of the World Health Organisation (WHO) attempts to convey this utopian ideal in the following words: "Health is a stage of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."[2] As explained by the WHO, good health involves more than just disease-free living; it also encompasses a community's social and emotional well-being. So, in order to meet WHO's goal of providing health for all, community improvements should aim to minimize not only sickness but also social tension and mental ill-health.[3]

Health, like weather or fortune, is variously defined. It can be defined as a person's continued physical, emotional, mental, and social ability to cope with his surroundings. The term health gets its ambiguous meaning from its Anglo-Saxon origin, which implies hale, sound, and entire. Being able to operate effectively, both physically and intellectually, and

[1] World Health Organisation (2004), Promoting Mental Health Report 2004, WTO.
[2] Ibid.
[3] https://www.who.int/water_sanitation_health/hygiene/settings/hvchap2.pdf

express the full spectrum of one's abilities has traditionally been considered a healthy experience.

1.1 Definition of Health

Various authorities have described health in a variety of ways over time. The Oxford dictionary states it as a "state of being well in body or mind." Webster's dictionary describes health as the "condition of being sound in body, mind or spirit especially freedom from physical disease or pain." The World Health Organization (July 1948) defined health as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." An additional clause has been added, including the "ability to lead a socially and economically productive life."[4]

1.2 Concept of Human Health and Well-being

The concept of health is relative for several reasons, including ecological conditions and the fact that health standards differ among castes, classes, and genders. Furthermore, there are no international health standards since health is not an ideal state. Individuals belonging to the same caste, gender, and socio-economic group will not necessarily have the same health standards. The castes and classes of people belonging to different countries and social groups may differ.

The WHO (2018) defines health as "a state of complete physical, mental, social and spiritual well-being, not simply the absence of disease or infirmity." There are four aspects to this definition. They are a) physical, b) mental, c) social, and d) spiritual.[5] It means being able to exercise, be strong, and have the energy to reach your goals. Cultural, spiritual, and political activities contribute to developing relationships with others, both within your immediate surroundings and in the broader community. In many countries, health has become a primary social and political concern. Most countries place a high value on health. Health used to be defined as the absence of disease. Health and harmony are often equated in some countries, with harmony defined as a state of being at peace with oneself, others, God, and the Planet. Both ancient Indians and the Greeks believed health problems were caused by bodily humour imbalances.

[4] World Health Organization. (1948), Constitution ofthe World Health Organization, *Basic Documents*.
[5] WHO (2018), Mental Health: strengthening our response, [Online: Web] Accessed 1 December, 2021 URL: https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

Mental health is described as the absence of mental disorders and a condition of balance between the person and the environment. Previously, physical and mental health were thought to be different entities. However, studies show that these two dimensions are inextricably related. Mental and physical health are interconnected, as evidenced by the old saying, "a healthy mind in a healthy body." Poor mental health can negatively impact physical health. According to a WHO Technical Report from 1964, psychological aspects may have a role in the development of diseases such as hypertension, gastritis, and asthma. Mental health refers to the absence of both internal conflicts and external maladaptation. He has good self-control and is not affected by emotions. Mental health assessment is problematic because, unlike physical health, we lack accurate techniques to measure mental health. Standardized mental health questionnaires, on the other hand, are available and may be utilized by professional interviewers. Mental health is essential for overall well-being. However, our understanding of mental health is inadequate.[6]

One of the components of health that involves social relationships as part of a wider definition of health. A state of harmony inside a person and among society's members is referred to as "social well-being." A socially healthy person is capable of building and maintaining good connections in family, community, and at work, as well as performing social responsibilities suitable to his or her standing. On the other hand, he is regarded as abnormal If he fails to do these responsibilities, ignores social interactions, engages in destructive behaviours, and commits homicide, suicide, crime, gambling, or drinking.

However, there has been a resurgence of the belief that people have a right to health, which should be pursued by all. By the year 2000 A.D., the World Health Assembly approved the goal of "Health for All by 2000," meaning that everyone in the world will have achieved a level of health that will allow them to live a productive life on a social and economic level. However, this objective has yet to be met.[7]

1.3 Indicators of Health

There are various health indicators that represent the health of people in a given community. It is critical to understand what constitutes health and a health indicator. Understanding health indicators is the foundation of all healthcare. Human health and well-being can be

[6]World Health Organization. (1964), *Psychosomatic disorders: thirteenth report of the WHO Expert Committee on Mental Health [meeting held in Geneva from 22 to 28 October 1963]*, World Health Organization.
[7] Haider, W. (2019), "Why Health for All by 2000 Policy (HFA 2000) failed to achieve its goals?", *Annals of King Edward Medical University*, *25*(3).

measured in a variety of ways. In certain cultures, health is also defined as "being at peace with oneself, one's society, and the universe."[8]

Use of Health Indicators

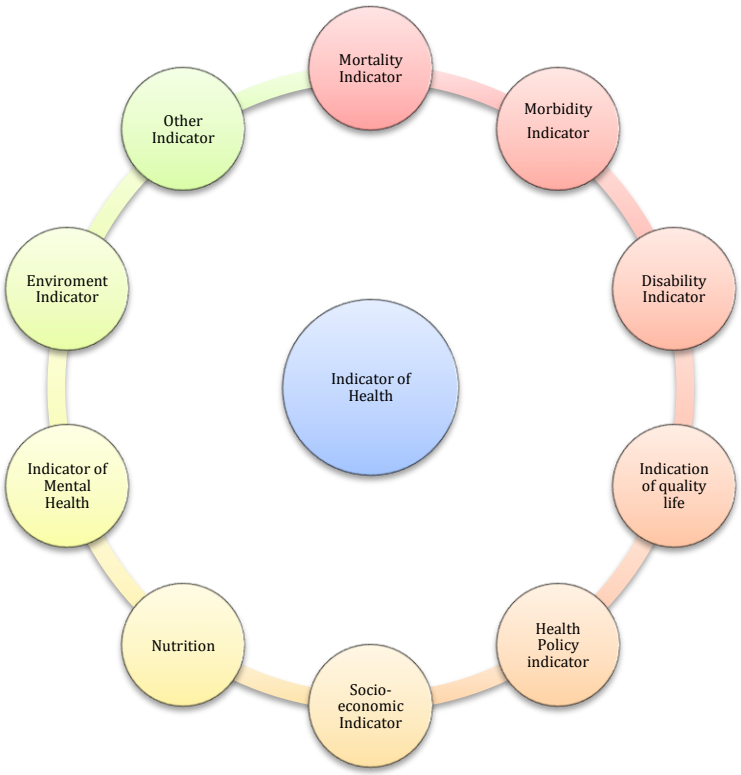
The health indicators can be used to assess, describe, and compare the health of a community.

- Identifying health needs and planning health programmes and actions based on that information.
- Health resource allocation.
- Evaluation of the efficacy of health interventions.[9]

Classification of Indicators

There are many various kinds of health indicators. Some indicators are used to indicate death, while others show disease burden, and still others provide indices on the availability and utilisation of health services. The common health indicator is shown in figure 1.1.

Figure 1.1: Indicators of Health



[8] Anderson, J. G. (1977), A social indicator model of a health services system, *Social Forces*, *56*(2), 661-687.
[9] Ibid.

Dimensions of Health

As earlier mentioned, health is multi-dimensional. The WHO definition considers three aspects: physical, mental, and social. Many new dimensions of health, such as spiritual, emotional, and vocational, have recently been recognised. These several dimensions interact with one another, each with its own nature.

The following are some of the numerous aspects of health that are briefly mentioned here:

a) **Physical Dimension -** This dimension is concerned with the human body's structure and function. Health, according to this dimension, is the condition of perfect body functioning, in which every cell and organ is operating at maximum capacity and in perfect harmony with the rest of the body.

b) **Mental Dimension -** Mental health is a state of balance between an individual and the environment, not just the absence of any mental disorders. Previously, the physical and mental aspects of health were thought to be different entities; However, research has shown that they are inextricably linked. The classic adage "a healthy mind in a healthy body" exemplifies the link between mental and physical well-being. Mental illness has an impact on physical health and vice versa.

c) **Social Health -** Social health is a component of health that encompasses social ties as part of a larger concept of health. A state of harmony within an individual and among society's members is referred to as social well-being. A socially healthy person is one who performs social roles appropriate to his or her status and is adept at creating and maintaining harmonious relationships in family, community, and at work. On the other hand, he is regarded abnormal if he fails to fulfill these tasks, neglects social relationships, engages in harmful habits, and commits homicide, suicide, crime, gambling, or drinking. A person who is socially integrated feels less alone and more empowered.[10]

d) **Emotional Dimension -** This dimension is concerned with a person's "feelings." Previously, this dimension was thought to be a part of the mental dimension, but it is now regarded as an independent entity.

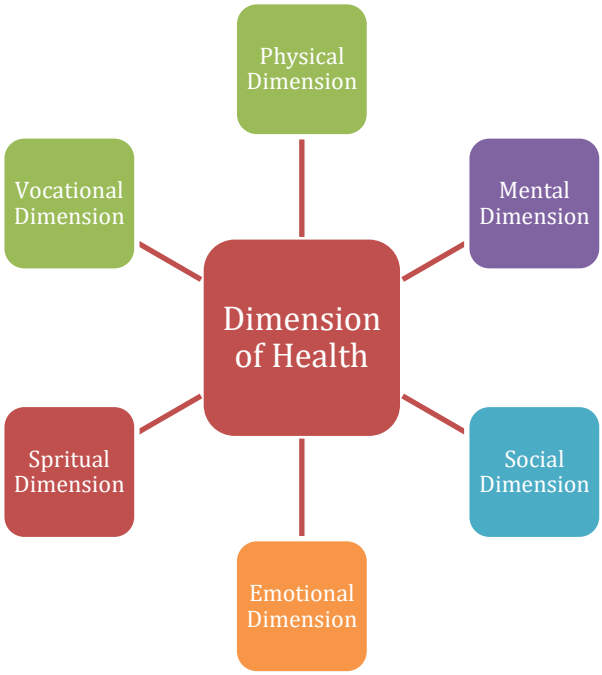
e) **Spiritual Dimension -** The spiritual component has recently been acknowledged as having a major impact on health and disease. At this level, a person feels a sense of commitment

[10] Wilkinson R, Marmot M, editors, "Social determinants of health: The solid facts" [Online: Web]. 2nd ed. Copenhagen: World Health Organization; 2003, accessed on 28 November 2021 URL: **http://www.euro.who.int/__data/assets/pdf_file/0005/98438/e81384.pdf [PDF – 470 KB]**

to a higher entity and attempts to find meaning and purpose in life. It's a more recent concept that's difficult to explain.

f) **Vocational Dimension-** The level of job satisfaction, job-related facilities, administration, management, and colleague behaviour at work can all be used to assess the vocational dimension of health. Figure 1.1 illustrates various dimensions of health.

Figure 1.2 Dimensions of Health



A vast variety of elements have an impact on one's health. These influences could be internal to the person or external to his physical and social surroundings. These elements interact with one another and impact an individual's or a group's health.

The following are key health determinants:

a) **Biological Determinants** - These characteristics encompass both physical and mental characteristics. Human beings, whose genetic background influences them to some level. In conditions such as obesity, biological determinants are crucial such as diabetes, chromosomal disorders, cancer of diverse types, etc.

b) **Behavioural and Socio-Cultural determinants** - Things like your way of life fall under this category. Behavioural determinants of health and disease include food, physical exercise, smoking, and alcohol consumption.

c) **Environment -** It could be either the internal or exterior environment. Internal environment refers to the many tissues, organs, and organ systems, as well as their functions. The external environment encompasses everything that exists outside of the individual human body. Physical, biological, and emotional factors all play a role in this environment. These elements are intertwined and do not exist independently.

d) **Socio-economic conditions -** The availability and accessibility of health care services have an impact on the community's health.

e) **Demography** - The composition of the population has an impact on health. Over the previous few decades, the number of elderly people has risen. This could result in a rise in chronic diseases; thus, health care systems must be prepared.

f) **Other factors -** These include things like food and agriculture, education, engineering, and information technology that aren't part of the traditional health care system but have a direct impact on health.

Aspects of Well Being

Individuals and groups have objective and subjective aspects of their well-being.

Objective components

1. Standard of living
2. Level of living

Subjective component

1. Quality of life

1. **Standard of Living**

   It refers to an individual's regular expenditures, items consumed, and services received. It refers to a person's level of education, employment, food, clothing, and other amenities. The WHO stated that “standard of living is indicated by income and occupation, the standard of housing, sanitation and nutrition, the level of provision of health, educational, recreational and other services.”

2. **Level of Living**

   This term is used by the United Nations. It is divided into nine sections:

   - Health
   - Food consumption

- Education
- Occupation and working condition
- Housing
- Social security
- Clothing
- Recreation and leisure
- Human rights

Subjective Component

1. **Quality of Life**

   Happiness or dissatisfaction with numerous aspects of life can be expressed by this term. It is the state of being alive as a result of a number of factors, including one's health, educational achievement, social development, housing conditions, personal liberty, and freedom of speech. Quality of life is a measure of an individual's or a group's physical, mental, and social well-being as perceived by them. Governments all throughout the world are now focused with raising people's living standards. The quality of one's life can be measured. Physical quality of life and, more recently, the human development index are two regularly used indexes.

   a. **Physical quality of life index (PQLI):** Another statistic is the PQLI, which contains infant mortality, life expectancy at one year, and literacy.
   b. **Human Development Index (HDI):** This index includes three indicators that reflect three dimensions and is a refinement of the PQLI.
      - Longevity - The term "life expectancy at birth" is used to describe longevity.
      - Education - The adult literacy rate and the average year of schooling are indices of education.
      - Income - It is assessed by real GDP per capita in US dollars, showing Purchasing Power Parity (PPP).[11]

[11] Sen, A. (1988). *The standard of living*. Cambridge University Press.

1.4 Health in the Constitution of India

Article 21 of the Indian Constitution aims to provide for a welfare state, guarantees the Right to Life and Personal Liberty. Directive Principles of State Policy directs the state to take steps to promote the people's health condition. Article 39 (e) ensures health protection for women and men workers. Article 41 is related to public assistance for the ill and disabled. Article 42 ensures the health of infant and mother maternity benefits. Article 47 ensures elevating the nutrition level and standard of living of people as its primary responsibility. The state shall, in particular, direct its policy towards securing the health of workers.[12]

The primary healthcare approach aims to address the problems of the healthcare system in developing countries. India's healthcare system is in an abysmal state. This approach concerns people who do not have accessibility and affordability to healthcare services. Social and economic inequities have been identified as the major contributing factors for such a state of affairs. People in India have been deprived of opportunities because of social factors. The inequities in getting access to a proper healthcare system are also affected due to spatial and topographical incongruence. Women sanitation workers are seen as one the most disadvantaged groups regarding having access to good quality healthcare services. They have to work in hazardous environments because of their occupational requirements. So, the primary health care approach is meant to ensure that every individual should have access to better healthcare services.

1.5 Environmental Health

Environmental health is a process of understanding and addressing environmental factors that affect human health and well-being. The term environmental health refers to the characteristics of human health that are affected by environmental factors such as physical, biological, social, and psychological factors.

The term "biological factors" refers to disease-causing entities such as bacteria. Temperature, humidity, precipitation, wind, and other physical elements are examples of physical factors. Allergens, chemicals, pollution, and other chemical factors are examples of chemical factors. Stress, interpersonal interactions, and other psychological elements are examples of psychological factors. It also refers to identifying, addressing, managing, and

[12] Bakshi, P. M., & Kashyap, S. C. (1982). *The constitution of India*. Universal Law Publishing.

preventing environmental issues that may have a negative impact on the health of current and future generations.

Environmental Hazards

Biological, chemical, physical, psychological, and sociological hazards are all examples of environmental hazards.

a. **Biological Hazards -** Bacteria, viruses, parasites, and fungi are examples of biological health hazards. When inhaled, eaten, or in contact with the skin, they can be harmful to humans. Infections with respiratory illnesses, food poisoning, tetanus, and parasites are among the problems they can cause.
b. **Water-borne diseases** - Water-borne infections include the polio virus, hepatitis A virus, cholera, amoebic dysentery, bacteria, and Cryptosporidium, which are all spread through drinking water. These disease organisms can make people sick if they drink contaminated water that has not been cleaned.
c. **Physical hazards** - Airborne particles, temperature, humidity, equipment design, and radiation are among them.
d. **Psychological Hazards** - These are variables in the environment that cause psychological changes such as anxiety, misery, and other mental health issues.
e. **Sociological hazards** - These are the consequences of living in a society that is noisy and lacks privacy, overcrowding and insufficient space.[13]

1.6 Waste and human Health

Improper waste management has the potential to harm the environment as well as public health. Different handling and disposal actions might have negative consequences, leading in soil, water, and air pollution. Inadequately disposed of or unprocessed garbage might offer major health risks to the people who live near the disposal site; leaks from the garbage might contaminate soils and water streams, as well as cause air pollution from heavy metals and persistent organic pollutants (POPs), posing health risks. Other annoyances created by uncontrolled or poorly managed garbage disposal that may have a detrimental impact on citizens include landscape deterioration, local water and air pollution, and littering. For

[13] World health organisation (2002). "*Occupational health: A manual for primary health care workers*", Cairo, Egypt.

health reasons, effectively managing garbage and doing it in an environmentally friendly manner is critical.[14]

Various types of wastes are:

Figure 1.3 Various Types of Wastes

A) Solid Waste

Solid waste has become polluted as a result of waste dumping or landfill leaking. As a result of waste dumping or landfill leaks, solid waste has been polluted. Furthermore, uncollected solid waste increases the risk of injury and infection. Organic household garbage, in particular, is a major source of concern because it ferments, creating ideal conditions for microbial disease survival and spread. Direct contact with solid trash can result in a number of infectious and chronic disorders, especially among waste workers and rag pickers. People may be exposed to chemical and radioactive dangers if industrial hazardous waste is disposed of alongside municipal waste. Uncollected solid trash can also obstruct storm water discharge, resulting in stagnant water bodies that can act as breeding grounds for disease. When garbage is dumped near a water source, it contaminates the water

[14] World Health Organization (2016), Report on *Integrated Monitoring of Water and Sanitation Related SDG Targets*, WTO.

body or groundwater supply. When untreated waste is dumped directly into rivers, seas, and lakes, harmful substances accumulate in the food chain via the plants and animals that ingest it.[15]

B) Hazardous Waste

Around 12 million tonnes of sluggish garbage are created annually in India from street sweeping and construction and demolition debris waste, accounting for nearly a third of total MSW in landfills. Human health can be harmed by hazardous waste exposure, and children are particularly vulnerable to these toxins. Chemical poisoning is produced by the discharge of chemical waste into the environment, and direct chemical exposure can result in diseases. Many research has been conducted in different parts of the world to determine if there is a link between health and hazardous waste.[16]

C) E-Waste

E-waste comprises a number of materials that can be used and reintroduced into the manufacturing cycle, such as refrigerators, computers, and washing machines. Because of the contaminants involved, the health implications of e-waste treatment could include neuro-developmental repercussions.[17]

D) Health Care Waste

Medical waste and other hospital waste disposal require special attention since they pose a major health risk. In hospitals, health care facilities, and medical laboratories, infectious waste, such as syringe needles, bandages, plasters, and other types of waste, is often disposed of with non-infectious waste. Patients, healthcare workers, and the general public can get sick from pathogens in healthcare waste. Drug-resistant microorganisms can be transferred into the environment from health-care facilities. The presence of potentially harmful germs in medical waste creates a breeding habitat for them. Hepatitis B, HIV, and Hepatitis C infections are caused by health-care waste every year, resulting in millions of illnesses. There may also

[15]ibid
[16]ibid
[17]ibid

be injuries caused by waste products and by-products, such as radiation, antibiotics, and cytotoxic drugs.[18]

E. Municipal Waste

Throughout the world, municipal garbage is defined differently according to the country. Generally, trash or garbage refers to municipal waste, which is a by-product of modern living. The term "municipal" referred to anything run and governed by elected local officials, such as city or district governments. Municipal solid waste (MSW) is used to describe what individuals throw away at home, at schools, and in workplaces. Municipal waste is defined as the solid trash generated by a community. In most cities and towns, local administrations have traditionally handled urban solid trash. Municipal solid waste, usually waste excluding industrial, agricultural, and sewerage sludge, as well as all categories of hazardous waste, such as batteries and health care waste, is referred to as municipal solid waste. Including household garbage, as well as commercial and trade garbage that is similar in nature.

Handling and managing hazardous material can be dangerous to workers, individuals, the community, and the environment. Exposure to infectious or chemical substances, as well as physical harm from sharp things such as needles, scalpels, glass, and other sharp objects, pose dangers to sanitation workers.

F. Sewage Disposal

Many infectious illnesses have been associated to human excreta and waste water in sewage, including diarrhea, typhoid, hepatitis a virus, influenza, leptospirosis, and ascariasis. In the developing world, 10% of the population suffers from parasitic worm infestations caused by improper waste and excreta management, according to the World Health Organization. Nearly 2.1 million people die each year from diarrheal disease.

Sanitation workers in many developing countries make a living by cleaning and sweeping. Contaminated needles, solids, diseased matter, paper soaked in poisonous chemicals, containers with various chemicals, metal containers or packages with pesticide and

[18]ibid

chemical substances, surgical bandages (carrying harmful microorganisms), and batteries containing heavy metals may be encountered while they work.

1.7 Who are the Sanitation Workers?

Sanitation workers, according to the World Health Organization, are employees who clean, operate, or maintain sanitation services. This includes street cleaners, sewage cleaners, septic tank and pit cleaners, sewer cleaners, and manhole cleaners, and those who clean public places.

The first obstacle for governments attempting to address sanitation access is defining what "sanitation" actually entails. The second challenge is to decide which part of the problem will be addressed first. This is not a straightforward problem, and many specialists get the two processes mixed up. When it comes to describing sanitation, most experts believe that the term "sanitation" as a whole is a "big idea" that includes:

- Human excreta (faeces and urine) must be collected, stored, treated, and disposed of/reused/recycled in a safe manner.
- Household wastewater (also known as sludge) management, reuse, and recycling
- Stormwater drainage; sewage effluent treatment and disposal/reuse/recycling;
- Industrial trash collection and handling, and also
- Hazardous waste management (includes hospital waste, chemical/radioactive waste, and other toxic compounds).

1.8 Categories of Sanitation Workers

Safai Karamcharis and manual scavengers are two categories of sanitation workers. They work as i) contract and ii) permanent. They clean public places, latrines, sewers, septic tanks, and railway tracks in exceedingly hazardous situations with no safety equipment.

The term "manual scavenger" refers to an individual, an individual organization, a local authority, a public agency or firm that is regularly employed to clean, carry, dispose of, or otherwise handle human excreta as a result of the use of insanitary latrines or open drains into which excreta is exposed, or on a railway track before the eviction.

Persons employed as ‘sweepers or sanitation/cleaning personnel in municipalities, government, and private offices are typically classified as *Safai karamcharis*. They may

work for these organizations directly or on a contract basis. Contract workers handle garbage collection and disposal.

Because most Indian municipalities lack the most up-to-date machines for cleaning the sewage system, sewage workers are forced to enter the underground sewerage pipes through manholes and clear them wherever the pipes are congested for any reason. The sewage worker's job includes inspecting and maintaining the sewerage system's underground network pipes. Sewage personnel must remove solid wastes that are clogging the sewage system's flow of fluid waste. As a result, sewage employees were required to enter manholes that contained hazardous fumes daily.

According to The Indian Express, the inter-ministerial task force accounted for 53,000 manual scavengers in India in 2018, which was four times higher than the last survey performed in 2017. Furthermore, this statistic represents only 121 of the country's 600 or so districts. In the perspective of the authorities, there is no clear definition of what makes a manual scavenger. This complicates the situation even further. The Indian Railways, which dumps human excrement directly on railway tracks every day and hires scavengers to clean it up, is the most egregious offender of the law.[19]

1.9 Health Issues of Sanitation workers

Sanitation employees' health is a key concern that receives insufficient attention. They are affected by multiple diseases due to the nature of their profession and a lack of preventive measures. Apart from social issues, sanitation employees have far more health issues than workers in any other profession. Infections, skin problems, musculoskeletal disorders, arthritic changes, disc herniation, respiratory system, and so on. On the other hand, women workers have been exposed to a plethora of ailments due to their profession.

Women in India face many serious health problems. Sanitation work is one of the most dangerous jobs in India. Because their work involves sanitation and they lack sufficient facilities, women sanitation workers suffer from various health issues. Women from marginalized groups in every society and especially in lower caste sections are vulnerable. The health status of women shows its status in society. In order to understand the health of women from marginalized sections, we need to have reliable data on their socio-economic

[19] Nair, Shalini (2018), "53,000 manual scavengers in 12 states, four-fold rise from last official count, *The Indian Express*, New Delhi, 20 June, 2018.

condition, problems related to their workplace, access to services, and utilization of services. The women sanitation workers are economically and socially backward and a neglected section of society.

Most of the problems of working populations in developing countries are closely associated with the standard of healthcare facilities accessibility. This can also be affected by the prevailing socio-economic and political economy environment's specific characteristics. Better health is an essential remedy for preventing morbidity and mortality, a challenge to public health.

Sanitation is an intricate concept to understand. Sanitation is defined by the World Health Organization as "the provision of facilities and services for the safe disposal of human urine and faeces." As part of sanitation, people are encouraged to dispose of their waste properly, utilize toilets, and avoid defecating in open spaces. It is frequently used as a catch-all word for a variety of services and sanitation operations. It could be work-related, personal hygiene-related, or public hygiene-related. Handling menstrual waste, cleaning toilets, and disposing of garbage are all part of personal sanitation (segregation). Garbage collection from homes throughout municipal areas, zonal dumping sites for the city's garbage, sweeping the roads, cleaning drains, and public toilets are all part of maintaining public sanitation.

It has been observed that the working conditions of these sanitation workers have remained unchanged for over a century. According to Sulabh International Social Service, “four to five million people worked as scavengers in 2005 and were often employed by the local civil bodies to clean excrement in public places. This situation persists even though the Employment of Manual Scavengers and Constructions of Dry Latrines (prohibition), Act, [3] 1993, is in enforcement, which provides for the prohibition of the employment of manual scavengers as well as construction and maintenance of water-seal latrines for assuring the dignity of the individual, as enshrined in the preamble to the constitution.”[20] It has been observed that sanitary workers have continued to render service to society under difficult working conditions that have remained unchanged for centuries.

In independent India, there have been many occasions to highlight the issue of health. The eradication of manual scavenging was initially proposed by Mahatma Gandhi. According

[20] Rajnarayan, R. T. (2008), “Occupational health hazards in sewage and sanitary workers”, *Indian Journal of Occupational & Environment Medicine*, 12 (3): 112-115.

to the Ministry of Social Justice and Empowerment, 676,000 scavengers exist. It is possible that these statistics are understated because scavenging is illegal. According to Bejwada Wilson of the SafaiKaramchari Association, there is 12 lakh (1.2 million) scavengers in the country.[21] Sulabh (2007) estimates that four to five million people worked as scavengers in 2005 and were often employed by local civil authorities to clean public spaces.[22]

The Clean India Mission, Clean India Drive, or Swachh Bharat Campaign are all names for the Swachh Bharat Abhiyan. The Swachh Bharat Abhiyan aims to clean up all of India's backward towns. Construction of public toilets, promoting sanitation programs in rural areas, cleaning streets and roads, and changes to the country's infrastructure are all part of this initiative. This campaign, which began on October 2, 2014, was created as a tribute to Mahatma Gandhi on his 150th birthday in 2019.

1.10 Manual Scavengers

Scavengers and sweepers constitute the sanitation workforce in Indian cities and towns. While the majority of scavengers work for municipal corporations and local governments to cleen streets, collect and remove the garbage, a significant number of scavengers, mostly women, continue to work in their traditional caste-based occupation of manually cleaning dry latrines and carrying human excreta in cane-baskets. In the last decades, several studies also have tried to review the changes in the lives and labour of manual scavengers. While referring to the post-independence situation, the State and Union government has set up several Safai Commissions and committees to look after the rehabilitation of these scavengers.

1. In 1949, the Government of Bombay created a committee to investigate the living conditions of scavengers, led by V.N. Barve, which submitted its report in 1952. The committee issued its report titled "Scavenger is living circumstances inquiry V.N. Barve Committee" after analyzing the living conditions of sweepers and scavengers and offering recommendations to improve them.
2. The central advisory board of Harijan welfare appointed the N.R. Malkani Committee in 1957 to suggested ways to abolish the practice of carrying night soil as a head-load and the committee submitted its finding in 1960.

[21]Zaidi, A. (2006), "India's shame", *Frontline,* pp. 9-22.
[22]Kothandaraman, P., & Vishwanathan, V. (2007). "Sulabh International: a movement to liberate scavengers by implementing a low-cost, safe sanitation system." *UNDP Growing Inclusive Markets,* Case Study, September 2007. http://cases.growinginclusivemarkets.org/documents/76

3. National Commission on Labour 1966, headed by P.B. Gajendragadkar, was appointed by the Government of India, dealing with unorganized labour, working conditions of sweepers and scavengers, housing, and wages for the sweepers and scavengers. In its report in 1969, the commission noted that the social stigma of untouchability continued to be attached to this category of workers.
4. N.R. Malkani Committee and Bhanuprasad Pandya Committee (1969) were appointed by the Government of India one headed by N.R. Malkani to study the customary right scavengers and sweepers. This committee also submitted their own suggestion in respect of pay and allowances, weekly-offs, leave facilities, etc.
5. B.V. Lad committee (1973) was appointed by the Government of Maharashtra. The committee was to study the service and working conditions of sweepers and scavengers in the state of Maharashtra. The committee submitted its report in 1974, with numerous recommendations working conditions of sweepers and scavengers.
6. In 1976, the Karnataka I.P.D Salappa committee published a report titled "Improving the living and working conditions of sweepers and scavengers.". Report of the I.P.D. Salappa Committee from 1976 is relevant to the present day. For the first time in the State, a comprehensive report is compiled and analyzed to give a comprehensive picture of the situation of *Safai Karmacharis.* The recommendations relating to working conditions, service conditions, and living conditions were made, as well as recommendations relating to economic conditions, social conditions, health, and education. It is true that the government has accepted the report, but the lack of implementation of these recommendations and the fact that workers are unaware of the report shows their lack of political will and negligence.
7. The union government launched specific projects in 1969 to convert dry toilets to water-pour flush latrines; Bindshwar Pathak's Sulabh International Scheme, which meant two pit toilets and was launched in 1974, intimated a minimal shift in the system.
8. A decade later, in 1983, the Government of Maharashtra appointed a committee, the *Mehtar* Committee to go into the feasibility of implementing the recommendation of the ‘Lad Committee.
9. Task Force (1989), constituted by the planning commission of India, submitted its report in March 1991. It suggested measures to abolish scavenging in India, emphasizing the rehabilitation of scavengers. On the basis of this report, “National Scheme of Liberation of scavengers and their Dependent" was framed by the Government of India, the Ministry of Welfare Government has declared its intention to implement the scheme.

10. The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act was passed in 1993. It provides for the prohibition of employment of manual scavengers and construction and maintenance of water seal latrines and the scheme for rehabilitation of manual scavengers. This is the only uniform legislation for the whole of India for abolishing manual scavenging by declaring employment of manual scavengers for removal of human excreta and offense and thereby bans the proliferation of dry latrines in the country.
11. National Commission for Safai Karamcharis Act, 1993, provides a study and evaluation of policies and programs relating to the *safai-karamchari* (scavengers) and recommends to the central government-specific programs of action to eliminate inequalities in status, facilities, and opportunities for *safai-karamcharis* under a time-bound action plan.
12. National Safai Karamchari Finance and Development Corporation (NSKFDC) was formed in 1997, are to promote economic development and self-employment for the economic rehabilitation of *safai karmacharis* or scavengers besides providing training in technical and entrepreneurial skills and extending loans to students from the community for pursuing higher education. The NSKFDC also coordinates and monitors the schemes and programs implemented through authorized state finance it, and it is an apex institution for channelizing funds through state agencies.
13. There is also a scheme called the Centrally-sponsored Rural Sanitation Program (CRSP)s, which strives to provide more and more sanitation facilities to the rural population and generation awareness about health, education, and eradication manual scavenging by converting all existing dry latrines into low-cost sanitary latrines.
14. The Pre-Metric Scholarship Program is for the children of people who have worked in filthy jobs like scavenging since 1977-78. The goal of this program is to provide financial aid to children of dry latrines, scavengers, tanners, flyers, and sweepers who have a history of scavenging to continue pre-metric education.
15. The National Human Commission (NHRC) has also introduced a manual scavenging eradication scheme on 2 October 2002 (Ramaswamy). Through the constitution and specific development activities, the Indian state has attempted to move from modernization of occupational dealings by providing modern technology to avoid di9rect physical contact to total detachment from caste occupations by arranging alternatives.

16. National Committee on Scavengers: Several committees have been constituted to study the working and living conditions of the scavengers in India-Barve Committee, Prof. N.R. Malkani Committee, National Commission on Labour and Task Force.

Sanitation workers work in a society where they are burdened with inheritance, stigma, and exploitation. Their identities are only known to those who work in sanitation work. According to research conducted by Dalberg Associates in 2018, there are around 5 million sanitation employees in India.[23]

They are classified as sewer cleaners, latrine cleaners, train cleaners, road cleaners, and drain cleaners, among other jobs. Employees in sanitation work frequently come into touch with human waste, and working without protection exposes them to various illnesses and health risks. Ammonia, carbon monoxide, and sulphur, among other toxic gases found in septic tanks and sewers, can cause employees to pass out or die. Every five days, three sanitation workers are predicted to die in India.[24]

According to the National Commission for *Safai Karamcharis* (NCSK), various statutory bodies established by Parliament have been assigned responsibility for sanitation workers' welfare. Since January 2019, 123 persons working in dangerous forms of manual scavenging have died at work, according to NCSK.[25]

Sulabh International, earlier known as Sulabh Shauchalaya Sansthan, was founded in 1970 at Patna (Bihar) by Dr. Bindeshwar Pathak, Padma Bhushan, an action sociologist, social reformer, and an internationally known expert on low-cost sanitation. It is now operating in 25 states and 2 Union Territories in India. It is based on Gandhi's philosophy of scavenger liberation through low-cost sanitation. Sulabh International organization has many objectives, which include; 1) To restore human dignity and social transformation of the society by converting bucket toilets into sulabh shauchalayas (pour-flush latrines with twin pits for onsite disposal of human excreta) and by rehabilitating the liberated scavengers and their wards in other dignified professions after training to enable them to lead a life as equals in the society. 2) To prevent environmental pollution and promote ecology, health,

[23] Dalberg Associates. (2021), "The Sanitation Workers Project", [Online: web] http://sanitationworkers.org/accessed on August on 17, 2021.
[24] https://indianexpress.com/article/india/official-data-shows-one-manual-scavenging-death-every-five-days-5361531/accessed on August 17, 2021.
[25] https://indianexpress.com/article/india/official-data-shows-one-manual-scavenging-death-every-five-days-5361531/accessed on August 17, 2021.

and hygiene. 3) To use human excreta as a non-conventional energy source. 4) To train change agents for urban and rural development in order to provide new employment opportunities. 5) To encourage consulting research and development in technological and social domains, as well as the dissemination of innovation, education, and motivation through the media.

Dr. Pathak developed the design of sulabh shauchalya which is affordable, easily available, technically appropriate, and socially and culturally suited to Indian conditions. It can be constructed even in congested urban areas. Sulabh has so far constructed more than 6 Lakh Sulabh Shauchalyas in 25 states and 4 Union territories. About 30,000 scavengers have so far been liberated from the demeaning task of cleaning the bucket latrines manually.

Sulabh introduced the system of operation and maintenance of community latrines with bathing and urinal facilities on a 'Pay and Use' system with people's participation with no financial load on the government or local authorities. The Sulabh complexes with the 'pay and Use' system have found acceptance in cross-cultural settings throughout the country. Sulabh established an Institution at Patna to impart training exclusively to liberated scavengers and their wards in various vocations to enable them to lead a dignified life as equals with others. Such institutes have also been established in Rajasthan and Maharashtra. Sulabh is the only organization in India that undertakes the twin operation-conversion of bucket toilets and social transformation of liberated scavengers in the institutes especially set up the purpose.

Sulabh International has established an institute called Sulabh Institute of Technical Research and Consultancy to provide consultancy services and to carry out research and development in the fields of low-cost sanitation, water supply, and non-conventional energy sources. The institute provided consultancy services to Governments of Tamil Nadu and Kerala on the World Bank, assisted low-cost sanitation projects and to the Government of Bhutan in establishing community latrines on the 'pay and use' system. Consultancy services were also provided to the World Bank, Government of U.P, and Government of Assam.

The institute was also involved in the prestigious project- Ganga Action Plan. It prepared project reports on low-cost sanitation for several towns in the U.P and Bihar. Institute also collaborated with the Netherlands-based consulting firms in preparing low-cost sanitation projects for Kanpur and Mirzapur towns under the Ganga Action plan.

In order to inculcate job skills to construct, operate and maintain the various schemes, Sulabh conducts training courses under the Centre for Action Sociology. It runs fundamental courses for those who intend to work in the fields of sanitation, water supply, and social work. The training courses are designed for different levels of personnel of Central and State Government, local authorities, NGOs, masons, etc.

Scavengers have been victims of Hinduism's traditional system's institutionalized oppression. Because of the terrible stigma the caste system prescribed for them, scavengers have been emotionally and mentally crippled, economically exploited, politically oppressed, socially and discriminated, educationally exploited, politically oppressed, socially discriminated, educationally deprived, and culturally victimized for centuries.

Scavengers have begun to question and reject the notorious mythological-religious-metaphysical theory of the origin of the caste system, which declared them born of the unclean part (feet) of the Brahma's body. This pernicious theory is still a part of the syllabi of educational institutions and is taught by sociologists in contemporary secular India. Scavengers are becoming conscious of the colossal damage and mischief done to them by the much-trumpeted glorious Indian heritage and Hindu civilization in the name of divine will and order maintenance by the followers of the great law given by Hindus, the Manu.

The issue of the emancipation of the scavengers is, in fact, tied up with the caste system. The social group recognized as Shudra has the peculiarity that it embraces a whole range of sub-groups, showing differences role-wise and status-wise. The Hindu religious system has brought about, in the course of its long period of evolution, a social organization that has come to be looked upon as conservative, traditional-bound and insular. The four-fold division of the society *Brahmin*, *Kshatriya*, and *Shudra* has been described as the *Chaturvarnya* system of social organization. It is believed that the invading Aryans had condemned the vanquished original inhabitants as Shudras. The Shudras were only to render bodily labour and hence condemned to a position of servitude forever. It seems that those who had easily accepted the subjugation of the Aryans were let off a little humanity and are today known as backward classes. But those who had put up stiff resistance before giving up were branded as *Dasyus* and were put in the category of untouchables.

Scavengers are not a single caste in the Indian social system traditionally and instead are a product of the urban social system as an occupational group. Agrarian society was primarily

based on self-reliance and cooperation and did not condemn anyone to an inhuman status. Those who did dirty jobs lived outside the village and were considered non-citizens.

Scavenging, i.e., cleaning of latrines, roads, public places, and carrying of night-soil are a need of urban society, and hence the scavengers as an occupational group emerged in cities. Gradually the occupation became hereditary, and later, it degenerated into a socially condemned outcast among caste groups. Bhangi's function was an essential part of the occupational structure of the medieval city. The work had to be done manually with a few crudes implements, and night-soil, dirt, and filth had to be carried on the head. Hence these practices condemned the workers to a sub-human subsistence.

Gandhiji was concerned with the uplift and emancipation of all people in the lower rung of the society. These included the manual workers, services functionaries, and those engaged in low occupation. Bhangis, as the lowest amongst the low, was his first concern. Gandhiji said the function of Bhangi is akin to the function of the mother who cleans and sweeps the house, cleans the soiled clothes and body of children, and is always ready to clean all that Ashram and expects his other Ashramites to join.

There is a complete change in the concept and technology of civic sanitation in modern society. We have flush latrines (even with auto-wash facilities), underground sewers with pressure water to flush the drains and sewers, machines to eject the dirt and filth from sewers, automatic sewage disposal plants, water-recycling and sewerage dying, packing and reprocessing plants for making them useful reusable material. This is no more a manual, dirty, sub-human work or occupation in technological societies. It has become a highly technical job employing a high level of technology, modern equipment and gadgets, and qualified personnel. The question arises whether this will become a skilled technical occupation or remain a condemned occupation. Will only those who have been doing it through generations alone will do it? The answer is that no experiences in western industrial countries in airlines, railways, transport, and industry adequately prove that members of all social strata do sanitation jobs.

This requires a two-fold strategy-firstly elimination of the need for manual scavenging and instead introducing technology and automation in tasks relating to scavenging and sewerage disposal. Secondly, to raise the socio-economic status of the scavenger's caste/class for which purpose their educational and skill levels should be improved and they should be encouraged to enter into alternative occupations. Thus, the integrated

development plan for the community and the people will have to be adopted, raising their education, technological skills, and abilities, outflow from traditional habitats, occupation mobility, and economic betterment.

Flush latrines manually or pressure flushed should be set up in all towns and villages. In rural areas, biogas plants, individual or community-owned, should be set up, and it should be made obligatory for every panchayat under the Panchayat Raj Act to ensure that every village has its network of community latrines connected to a biogas plant. The State Government and the Ministers of Environment and Health should financially contribute to this work.

Public latrines had been constructed even during the British period in cities and towns, but these were only in low-class areas and very few. These were always filthy places constructed near colonies or squatter settlements of sweepers and scheduled castes. Their sanitary conditions were deplorable, and the open areas around these latrines. These were never serviced regularly, even daily. Hence these became spots of filth in the area.

The Sulabh experiment is a revolution in the sphere of public sanitary systems. It is a multipurpose project providing clean, healthy facilities for easing oneself, scientific disposal of night-soil, waste, and producing gas for street lighting and manure. The processed water can be easily disposed of for agricultural purposes.

The Hiatus between theory and fact, profession and practice, has contributed to mutilate the growth of human potential, yet human endeavor goes on unabated. Modern Social sciences have made remarkable contributions to the evolution and development of new ideas and thoughts but have miserably been left behind in terms of putting those ideas and thoughts in human behaviour into practice to give them a practical shape.

1.11 Socio-Economic Conditions of Manual Scavengers

Sinha and Kumar (2018), In terms of manual scavengers' socio-economic status, the majority of manual scavengers are members of India's Dalit community, and their economic situation is regarded as precarious. Manual scavengers are waged between Rs. 6,000 and Rs. 11,000 a month, with most of them working on a contract basis. Contractual workers are waged regularly, and if they skip a day of work, they forfeit that day's compensation.[26]

[26] Sinha, C., & Kumar, M. (2018), "Conceal or not? Management of dehumanized work identity among lower caste domestic workers and non-domestic scavenging workers", *South Asian Journal of Human Resources Management*, Vol. 5, Issue,2, pp. 173-193.

Additionally, because manual scavengers are contract employees, they do not have access to any of the benefits that regular employees in the same grade would receive, such as medical, financial, and retirement benefits. Manual scavengers fall into the category of workers classified under unskilled labour, and the government has set a daily minimum wage of Rs. 353 in A class cities, Rs. 294 in B class cities, and Rs. 236 in C class cities (Ministry of Labour and Employment, 2015). Therefore, no contractual employee can earn more than Rs. 11,000 per month, even if they work for the entire month.[27]

This is the government's mode of payment for scavenging, household sweeping, or scavenging by women employees, which is generally much less, even as low as certain rural or semi-urban regions, Rs. 100 per month is the norm. Even essential requirements like food, medication, and education are not covered by these wages.[28] Human Rights Watch (2014) reported that local government agencies hire Dalits or scheduled castes as *Safai karmcharis* to conduct jobs, including sweeping and cleaning.

According to Baruah, the President of India gave his assent to the "*Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013"* on September 18, 2013, and it was published in the Gazette of India on September 19, 2013. The previous *"Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993"* was repealed since it appeared ineffective. According to the 2011 census report, there were reports of about 2.3 million pit (insanitary) toilets. The main goal of the 2013 Act is to conduct a new investigation into the condition of manual scavengers. This 2013 Act contains tighter rules aimed at eliminating manual scavenging from society. As a result, the current Act has been constructed to have a broader reach and harsher punishments than the 1993 Act.[29]

The Salient Features of the Act and its Analysis

1. One of the goals of the Act is the promotion of the dignity of individuals, which is in accordance with the constitutional values enshrined in the Preamble. We must acknowledge that work is worship, so the stigma associated with the profession must be removed. Instead, these individuals should be treated with the utmost respect.

[27] Sinha C., & Kumar M. (2018) "Conceal or Not? Management of Dehumanized Work Identity among Lower Caste Domestic Workers and non-scavenging Workers", *South Asian Journal Resources Management*, Sage Publication, India Private Limited, pp-174-189.
[28] ibid
[29] Baruah, A (2014), "The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013: A Review", *Space and Culture*, Vol. 1, Issue. 3, pp. 9-17.

2. The Act also emphasises the Fundamental Rights granted to all individuals, regardless of caste, creed, or religion.
3. The Act also referred to Article 46 of the Constitution, which states, among other things, that the state must safeguard the weaker elements of society, particularly the scheduled castes and tribes, against social injustice and exploitation.
4. The Act prohibits the practice of manual scavengers, manual sewer and septic tank cleaning without protective equipment, and the construction of unsanitary latrines.
5. The word 'hazardous cleaning' is defined in Section 2(1)(d) of the Act. It refers to the usage of personal protective equipment and other cleaning devices, as well as following safety protocols. The Act, on the other hand, makes no mention of the type of protective clothing or other cleaning devices that should be used.
6. The phrase 'insanitary latrine' is defined in Section 2(1) (e). The Indian Railway is well known for being a major supporter of manual scavengers. Despite the Act's strict prohibitions, manual scavenging continues to be practiced. In the event of small latrines built inside railway compartments, the railway may have some challenges in avoiding manual scavenging. Instead, the railway authority should create a means for cleaning the latrines by installing detachable septic tanks underneath the toilets. When necessary, the compartments would be emptied inside the stations. Cleaning the train tracks in and around the stations will become obsolete due to this.[30]

1.12 Death and disease

Hazardous work shows itself, in the first instance, in diseases to the human body; later on, this results in death or severe disability. Since these diseases or mortalities are required to be reported under the law and since they and their causal factors are immediately visible. Work hazards are responsible for occupational diseases. However, many survey reports from different parts of India give an idea of the rates of occupational illness.

The sanitation workers are required to clean public roads and latrines. Their working conditions are hazardous to their health. They are infected with viruses and bacteria that affect their skin, eyes, respiratory system, and gastrointestinal system. The stink is so awful that many employees arrive at work inebriated to withstand it. There is no such thing as life insurance for this class of workers. Working in sewage may be associated with a higher

[30] Ibid.

prevalence of occupational diseases. Sanitation workers are at a greater risk of developing certain health disorders and sicknesses than workers in many other occupations.

Gases such as hydrogen disulphide, methane, ammonia, and carbon monoxide are routinely inhaled by workers. Watt et al. observed that 53.8 percent of sewer employees who were exposed to odor showed subacute symptoms such as Sore throat, cough, chest tightness, hypertension, thirst, restlessness, irritability, and libido loss. The severity of the symptoms appeared to be dosage-dependent.[31]

The feminist movement organised itself in the 1970s to demand changes in laws, regulations, programmes, and services factors that affect women's health, including abortion, birth control, battered women's shelters, rape victim services, and sexual self-determination, as well as other aspects of women's lives, such as economic security. In many regions of the world, services to satisfy women's health needs were founded by women.[32]

The sanitation workers are victims on several counts. They are discriminated against based on their caste, restricted to entering temples and places of worship, and basically, destined to accept this occupation due to their supposed low caste. The workplace of sanitation workers is gripped in unhygienic conditions with no proper medical facilities and improper safety equipment. Since many of the sanitation workers are contractual, government benefits hardly reach them in the context of accidents or accidental death, rehabilitation, and education.

1.13 Women and Exclusion

In society today, the situation of women sanitation workers is one of impoverished and dehumanized. Sanitation workers have historically been the most degraded, oppressed, exploited, and ignorant citizens of society. Through three thousand years of history, they have been socially, repressed, and ostracised on a cultural, economic, and political level. They continue to be so "protective discrimination" (as Scheduled Caste) under the umbrella of the Indian government. Individual and social identity are still denied today (self-respect and status). They have been viewed as outcasts who have been pronounced ritually unclean,

[31] Watt, M. M., Watt, S. J., & Seaton, A. (1997), "Episode of toxic gas exposure in sewer workers", *Occupational and environmental medicine*, *54*(4), 277-280.
[32]Ravindran, T. S. (1995) "Women's health policies: organising for change", *Reproductive Health Matters*, *3*(6), 7-11.

as a result, they are pushed out of villages and forced to live on the outskirts, where they are segregated.

Women sanitation workers work and live-in filthy surroundings, and the nature of their work exposes them to various diseases. Women sanitation workers clean homes and collect plastic, glass, paper, and various ferrous and non-ferrous metals. In addition, they face various exclusion from society, which may lead to psychological problems.

Sanitation employees are among the most denigrated members of society. Despite their ever-present contribution to society, society has always held them at a distance. Their occupation carries a high risk of dangerous work and injury, and they frequently have poor consciousness and are unconcerned about their health while on the job. Women scavengers endure various discrimination, both from the public at large and from inside their own society. They are maltreated because of their gender and caste. Dalits are deemed to be untouchable and filthy. They are frequently abused physically and sexually by men from both the “higher” caste and their caste. Poverty, illiteracy, and social and economic marginalization are all variables that contribute to the high rate of domestic violence in their communities. The issues that Dalit women encounter are immense in scope. Dalit women have been mostly overlooked in the development strategies and programs in health, education, housing, employment and pay, the implementation of legal rights, political engagement, and overall development.

Sanitation workers are omnipresent across the nation. A day without sanitation workers is unimaginable and bound to be full of unrest and filthiness, foul smell, and threat to public health at large. They create a clean environment and provide a hygienic and comfortable life. They are the worst treated and the least paid on the contrary. They live in unhygienic conditions and are deprived of basic civic amenities like drainage, safe drinking water, health safety, and basic sanitation.

1.14 Working Condition and Nature of Labour

Delhi is one of India's most metropolitan states, attracting individuals from all around the country for work and business opportunities. The rapid rise of the migratory population over a short period and more opportunities in urban regions with a better lifestyle have increased the state's urban slum population. In Delhi, as in other parts of the country, sanitation workers are a marginalized group that lives in ghettos and are denied essential health and sanitation rights.

Many changes have recently been observed in the cleaning procedure and the construction of the sewer system, but one thing remains constant: the fate of sanitation employees. There are two types of sewerage workers in the capital: manhole workers and municipality road sweepers. While men usually do the manhole work, both men and women clean and sweep the municipal buildings in Delhi, especially from the *"Balmiki"* and other such communities. Rather than cleaning the dry toilet, they now have to go inside the pit to clear the blocked sewers packed with human excreta and other dangerous garbage. They work with their bare hands, exposing themselves to many types of dirt, pollution, and potentially harmful pathogens. For nearly a century, sanitation workers' job conditions have remained constant.

The sanitation workers employed by the Delhi Municipal Corporation (DMC) are divided into four categories: permanent workers registered with the DMC, temporary workers, daily wage workers, contract workers, and rag pickers. Instead of permanent employees, the DMC frequently uses daily wage workers and unregistered workers. Hence, the fate of this *'Safai Karamchari'* is difficult, because daily wage and contractual labourers have no right to compensation from the DMC in the event of significant injuries inside the sewer or accidents caused by the haphazard method in which sewer workers are engaged. As a result, compared to permanent municipal employees, most contract workers are very unskilled and untrained and enter the sewer for emergency cleaning work. The majority of the workforces are on contract labour and do not receive a gratuity, a provident fund, or other benefits.

Furthermore, it has been discovered that widows who are offered labour as compensation after losing their family members do not receive full payment in most situations. Sanitation workers, particularly *"Bhangis"* in Delhi, are employed in metropolitan areas governed by either private or local self-government. The *Balmiki* (a Dalit sub-caste), often known as *Bhangis* (a derogatory name for manual scavengers), has long been one of Delhi's most marginalized, exploited, and marginalized communities. The Bhangis are the lowest of the low castes, as they are nocturnal soil removers based on the social structure of the upper and lower castes.[33] Generally, they gather animal excrement and other trash that is spread around and dispose of it at a predetermined location. This means that certain unscrupulous upper caste people in Delhi exploit Bhangi communities socially and economically.

[33]Shyam, l. (1992), *The Bhangi: A Sweeper Caste*. *Its Socio-Economic Portraits*, Bombay Popular Prakashan.

One of the most significant problems to be tackled in our country is sanitation. Generally speaking, the people are indifferent in observing the simple rules of health and sanitation. There are several factors for negligence in adopting these norms. In the process of socialization, the feeling of ‘inferiority and superiority, ‘Purity 'and ‘impurity,’ ‘upper and lower’ have been internalized right from the very beginning at home and outside, including educational centers. The label of inferior and superior is attributed to occupations and people. The social, economic, and ritual factors are adopted to determine occupation prestige, particularly in India. In the stratification of caste, the ritual factor is considered in the hierarchical arrangement of occupation.

Moreover, occupation is allotted to people based on their status in the caste hierarchy. The material and non-material reward received by the incumbents of occupation is based on the status accorded to an occupation. Thus, there is an association between caste and occupation. The occupations assigned to the lower castes are degrading, hazardous and mental, and less remunerative. In this sense, poverty has contributed to the practice of untouchability in India. In the occupational hierarchy, sanitation service has been placed in the lowest esteem, and therefore, only the lowest among the lower castes are rendering this important and noble service which is thought of as below their dignity by the so-called high caste people.

Sanitation is a type of public health that focuses on preventing disease. It is also a monopoly role that the municipality will play. Garbage removal, sludge removal, night soil removal, clean-up of dead animals, and sweeping are all part of sanitation. Sanitation workers face a variety of emotional and physical challenges in the workplace. The problem of sanitation workers being discriminated against at work can be solved by giving them the same rights as other government employees. Providing sanitation employees with safety precautions, holding regular health camps, providing health services, and raising awareness of government health plans will improve their quality of life.

Our atmospheres of living is a matter of controlling a large part of the preventive ill health. Sanitary workers have played an essential role in improving the urban and semi-urban ecological environment and modern urban civilization. A sanitation worker has a dirty job, but it is one that most communities cannot live without. Sanitation workers perform a valuable service to society. The working conditions of sanitation workers have not changed over a century. Sanitation workers sweep waste from public and private places into baskets

and containers using a stick broom and a tiny tin plate. They carry all the disposal to the dumping ground. Apart from all these atrocities that these sanitary workers face, they are also apparent to specific health problems through their profession. This occupation includes several health problems such as infections, skin disorders, heart problems, musculoskeletal and respiratory system issues are all common.

Sanitation workers in India are considered low-wage workers. Workers in the sanitation industry are predominantly women. The study of "Public Health" has gained importance in social science research in recent years. The status of health determines the quality and quantity of human resources residing in a geographical area and is influenced by many geographical factors like location and climate, by economic factors that determine the standard of living and nutritional levels; by the social conditions that determine access to health services; and by the political decision-making processes.

Sanitation workers have been identified as one of India's most dangerous occupations. Sanitation employees are exposed to various work-related hazards, such as dust, odor, load lifting, and an unsanitary atmosphere, all of which can raise workers' risk of occupational illness, either directly or indirectly. The current study aims to uncover factors that may contribute to health issues, highlighting areas that need to be addressed for disease prevention. Despite the international acknowledgment of the "Right to Health" and the Indian Constitutional provision of "Right to Life" and "liberty" (Article 21), not all Indian people have access to healthcare.[34]

1.15 Municipal Corporation of Delhi (MCD)

The Delhi Municipal Commission was established in 1862, which marks the beginning of civic governance in the city. The city was two square miles in size, with a population of 1.21 lakh people. Even 200 years before the foundation of the civic authority, Shahjahan, the city's builder, had established a civic infrastructure that was out of date and antiquated. As a result, the task had to be begun from the beginning. The sanitation and conservation system were established in 1863, and public latrines were built.[35]

On December 28, 1957, Parliament passed the Delhi Municipal Corporation Act, LXVI of 1957. Under a notification issued by the Corporation on February 15, 1958, the

[34]Pawar, V.S., (2014), "Right to Health: A Mirage for municipal sanitary workers*", Research Front*, 02 November, p. 67.
[35] Bhagwan, J, (1983), *Municipal finance in the metropolitan cities of India: A case study of Delhi municipal corporation*, Concept Publishing Company.

Government of India appointed, as an interim measure, a Commissioner of Local Authorities to take over the management of all the local bodies to be merged in it, under a notification issued by the Ministry of Home Affairs on February 15, 1958. The first general municipal election was conducted in March 1958 due to the amalgamation of nine of the eleven local bodies and the Delhi District Board, which was responsible for the rural regions' civic requirements at the time. Only the Delhi Cantonment Board and the New Delhi Municipal Committee survived as distinct entities. There were 80 councilors when the Corporation was established in 1958, with 12 seats allocated for members of the Scheduled Caste.[36]

The Delhi Municipal Corporation (Amendment) Bill 2011 was approved by the Indian Union government on November 23, 2011, clearing the MCD to be divided into three corporations and the reservation of seats for women to be increased from 33 percent to 50 percent. The MCD is the largest civic body in Asia. The Delhi Municipal Corporation is intended to be separated into three corporations: East Delhi Municipal Corporation, North Delhi Municipal Corporation, and South Delhi Municipal Corporation, with 50 percent reservation for women, and that local bodies be governed by directors. The civic body in East Delhi has been allocated 64 wards, according to the Amendment Bill, while the new civic bodies in North and South Delhi will each have 104 wards. The North and South Delhi municipalities will each have 26 Assembly constituencies, while the East Delhi Municipality will have 16 Assembly segments. The number of municipal wards would remain at 272. The MHA (Ministry of Home Affairs) will hold supervisory rights under the Amendment Bill, including administrative concerns, dissolution, and revisions to the Act. The National Capital Territory now has three municipal corporations, one municipal council, and one cantonment board.[37]

Except for the minor excluded sections of the New Delhi Municipal Council and the Delhi Cantonment Board, the MCD has the same territorial jurisdiction as the Delhi Government. However, their separate domains of activity are different. The MCD is in charge of municipal responsibilities, while the Delhi Government is in charge of the territory's government. The Municipal Corporations of Delhi are one of the world's most prominent municipal authorities, offering civic services to a population of 1.67 crore people in the capital city. In terms of size, it is only second to Tokyo. Some of the world's most densely

[36] ibid
[37] ibid

populated places are under its authority. The MCD is vested with 23 mandatory and 27 discretionary powers, allowing it to influence residents' lives around the clock, from birth to death.[38]

Obligatory Functions

The following are the functions: 1. To clean drains, drainage systems, public septic tanks, public restrooms, and similar additional conveniences: construction, maintenance, and cleaning. 2. Cleaning, removing and disposing of filth, trash, and other harmful or unpleasant material. 3. Polluted regions must be cleaned up, noxious plants must be removed, and all nuisances must be eliminated. 4. Regulations govern where the dead are buried and the provision and maintenance of such sites.5. Births and deaths are recorded. 6. Vaccination and inoculation of the general public. 7. Controlling and preventing the spread of harmful diseases.8. Public medical aid may need maternity and child welfare institutions, as well as the development and management of clinics and the execution of such tasks. 9. Maintenance, including facility extension and upgrades, of hospitals that existed at the time the DMC (Amendment) Act, 1993, was enacted. 10. Construction and management of municipal markets and slaughterhouses, as well as market and slaughterhouse laws. 11. Controlling and prohibiting obnoxious or harmful trades or activities.12. Possession or demolition of unsafe buildings and sites. Streets, bridges, drainage channels, and passageways, among other things, are constructed, maintained, modified, and improved. 14. Street lighting, watering and cleaning 15. Obstructions and projections in or over roadways and premises must be removed. 17. Establishment, maintenance, and financial assistance to primary schools, subject to changing conditions. 18. Prior to the start of the project, any local authority in Delhi is entrusted with the preservation of monuments. 19. The value of the Corporation's properties entrusted to its control is preserved and increased. 20. Economic development and social justice strategies are being developed. 21. Any other legal or regulatory duty imposed by the Act or another law.[39]

Discretionary Functions

1. Education advancement, including cultural and physical education, means other than the formation, maintenance, and aid to primary schools. 2. Construction, maintenance, and

[38] ibid
[39] ibid

assistance to stadium, gyms, *akharas*, and other sports and recreation facilities. 4. Sapling plants and maintenance along highways and elsewhere. 5. Building and land surveys. Marriage registration is number six. 7. Conducting a population census. 8. Civic reception for notable individuals. 9. Providing music or other forms of entertainment in public areas or places; theatres and cinemas are also discretionary functions. Organizing and managing fairs and exhibitions is number ten. 11. Possession property for any specified aims, including payment of inquiry, survey, and inspection charges in connection with such acquisitions for the construction or adaption of buildings required for such purposes. 12. a) private rest houses; b) poor dwellings; c) hospitals; d) children's homes; e) poor buildings; c) homes for the deaf and dumb, as well as crippled and handicapped children; f) impoverished and disabled individuals sheltering; g) mental health facilities for persons of unsound mind Building and maintaining of cattle fences. 14. Building, acquiring and maintaining housing for municipal officers and other municipal workers. 15) Any further measures are taken for the welfare of municipal officials and other municipal workers, or any class of them, such as the provision of loans for the building of homes and the purchase of vehicles for such officers and employees, or any class of them. 16. Organizing or supervision chemical or pathological laboratories for the investigation or study of water, food, and pharmaceuticals in order to detect diseases or conduct research for public health or medical help.17. Provision for impoverished and disabled people to get assistance. Establishing and maintaining veterinary hospitals is number 18 on the list. 19. Swimming pools, public washhouses, bathing facilities, and other similar sites are organised, built, maintained, and managed with the goal of improving public health. 20. To provide, distribute, and milk products for of Delhi citizens, farmers, and dairies located inside or outside the city. 21. Cottage industries, handcraft centres, and retail emporia organisation and management 22. Warehouse and sales *godown* construction and maintenance. 23. Building and maintaining vehicle and livestock bier garages, shelters, and stands. 24. Water that has not been filtered. 25. Improvement of Delhi in keeping with authorised development initiatives by the corporations. 26. The providing of housing for the residents of any area or any class of residents. 27. Any actions that are likely to improve public safety, health, accessibility, or general welfare are not specifically listed.

The MCD is in charge of providing civic services to both rural and urban areas. *Jhuggi Jhopri*, cluster settlements, resettlement colonies, regularised illegal colonies, slum *basties*, and private *Katras* are also under its jurisdiction. The Municipal Corporation of Delhi has

been given territorial jurisdiction over Delhi's rural areas. These have also been divided into five Development Blocks, with the Deputy Commissioner under the Development Commissioner. Both of them are responsible for the implementation of development schemes. Moreover, under the Delhi Panchayat Raj Act, 1954, there are *Gram Sabhas* and Block Panchayats. The Provision of civic amenities in rural areas is under the purview of the Municipal Corporation. [40]

New Delhi Municipal Council

The NDMC Act of 1994, which replaced the Punjab Municipal Act of 1911, was passed by Parliament in May 1994, and the Committee was renamed the New Delhi Municipal Council. For New Delhi Municipal Council, the area under Jurisdiction is about 43 sq. km. The foreign embassies, Secretariat of the central government, and government quarters for the staff are located here. It was felt that "the standards of health, cleanliness, sanitation, and education and almost everything" called for special attention, and this would not be forthcoming if it were tagged on to a larger body like the MCD.[41]

1.16 Need For the study

There is a mass scale of women engaged in sanitation work; virtually, they have no access to basic amenities like health facilities which are the breeding grounds for diseases that endanger the health of its residents. Health policies and strategies for sanitation workers have been largely ignorant or neglectful. In the absence of an adequate health care system, the sanitation workers, particularly the women sanitation workers, continue to suffer and remain downtrodden.

The rapid expansion of the migratory population within a short period of time, as well as greater job possibilities and a better quality of life in urban regions, has led in an increase in the state's urban population. Some people who have moved to cities are extremely impoverished and can hardly manage to rent a room, even a property in a city with increasing rents. Slum areas, on the other hand, have relatively affordable rents, and migrants either spend much less for room rent or provide their own Jhuggies; this makes slum areas desirable as locations of residency. However, life is horrible in terms of social, economic, educational, and health conditions, with frighteningly congested housing arrangements, a lack of drainage, filthy water bodies, mountains of rubbish, and unsanitary

[40] ibid
[41] New Delhi Municipal Council (2015). Annual Report for the year 2014-15. Delhi.

working conditions, among other things. Debris is thrown open in their areas, and to make matters worse, livestock dogs pull the garbage to their homes. Due to an unhygienic environment, urban sanitation workers face more health challenges. The sanitation workers' health problems need to be addressed.

1.17 Research Question

Following research questions for this research project can explicitly be drawn out into both methodological and theoretical investigation.

a) To what extent do government health Services and schemes help women sanitation workers.
b) When do the women sanitation workers approach the health service?
c) What are the minor and serious illnesses faced by women sanitation workers?
d) What kind of problems do the women sanitation workers encounter at their work?

1.18 Objectives

a) To study in detail the social, economic, and working conditions of women sanitation workers employed by the Municipal Corporation of Delhi.
b) To examine the broad view of various health welfare programs and policies addressing to health problems.
c) To assess the awareness regarding various Government health schemes among women sanitation workers.
d) To examine the impact of Covid-19 on women sanitation workers.
e) To suggest recommendations to improve the health status of sanitation workers.

1.19 Plan of Thesis

This thesis consists of seven chapters.

Chapter - I Introduction - It includes the meaning of health, definition of sanitation workers, categories of sanitation workers, the origin of manual scavenging, socio-economic conditions of manual scavengers, history of MCD, need for the study, research questions, and plan of the thesis.

Chapter - II Research Methodology - It starts with objectives, hypothesis, statement of the problem, location of the study, research design, sampling method, collection of data, period of study, and analysis techniques.

Chapter - III Review of Literature- It includes a holistic picture of existing knowledge and practice of sanitation and indicates the gaps in the existing knowledge.

Chapter - IV Results - Socio-Economic, Family and Working Conditions of Women Sanitation Workers: It includes their age distribution, education, caste, religion, marital status, number of children, income status, housing pattern, and nature of their work.

Chapter-V Results - Health Conditions of Women Sanitation Workers: It includes the health status of the permanent workers and temporary workers. For the purpose of the study variables like work-related problems, common health problems, rare health problems, frequency of illness, preferences of getting medical treatment, monthly expenditure of medical treatments, factors responsible for poor health status, and free health check-ups by the government have been measured among sanitation workers. It discusses what types of health services they prefer and how various factors influence how they use different health care facilities. These will assist us in identifying the reasons for choosing specific health centres (government, private, or voluntary) as well as the challenges they face in accessing health care.

Chapter-VI-Health services and Policies for Women Sanitation Workers – Problems centred around women sanitation Workers. It includes central and State-level health services and policies for women sanitation workers. It includes initiatives taken by the Central and State governments since independence.

Chapter-VII- Summary and Conclusion- It includes a summary of the finding of the research work followed by major conclusions.

1.18 Summary

Sanitation in human history has been integral to the life of health and safety to life. The practice of sanitation varied and was vividly a different affair of each region in the world. A Society that governs on the basis of labour and payment to the labour carried would locate it differently from a society that inherently practices and beliefs on specific forms of labour arriving specifically from a few social categories. The differences of social structure in utilizing the services of people from menial jobs become a question of research. Why in

most European societies in their evolutionary period of sanitation and public health does not find only certain groups doing sanitary works and others not doing it in converse to Indian societal arrangement based on caste and social category.

Health care is essential for social and economic progress. Health services should reach out to the community at large and be socially acceptable to be effective. Primary health care includes services such as immunizations to reduce the incidence/prevalence of specific diseases, maternity and child care to minimize mother and child mortality and morbidity, and so on. Health services are only meaningful if they enhance health, regardless of how technologically advanced or profitable they are.

Chapter-2

Research Methodology

Introduction

The chapter explains the study's research methodology and how it was used to carry out the research. Details about objectives, statement of the problem, hypothesis, location of the study, research design, sampling method, collection of data, period of study, techniques of analysis are provided herein in a concise manner. As previously stated, the purpose of this research was to understand better the difficulties that women sanitation workers face, their socio-economic, family, working conditions, and their health conditions in MCD.

2.1 Objectives of the Study

- To understand the perceived problems of the workers with respect to their daily work, work pattern, health problems, and specific work-related problems and their awareness towards it.
- To study the working conditions of women sanitation workers like the nature of work, location of workplace, facilities available, etc.
- To examine the broad view of various health welfare programs and policies geared to health problems.
- To evaluate the awareness level of women sanitation workers about health.
- To examine the impact of health schemes.
- To ascertain the availability of accessible and affordable health care.
- To suggest recommendations for better improvement of health among sanitation workers.
- To examine the impact of Covid-19 on sanitation workers.

2.2 Statement of the problem

Sanitation workers' jobs are one of the most challenging tasks in our society. Women have been working and involved in cleaning and loading the waste in the Municipality. Rapid industrialization has augmented the importance of economic independence for women, which has led to changes in their roles and status in society. Without a doubt, the transformation in women's status produces various healthy and positive changes. Working women's psychological and societal problems cannot be overlooked. Working women must

perform home (child-rearing, household tasks) and occupational roles, particularly sanitation workers. In addition to demographic factors, specific health problems influence the behaviour of working women in the place. Women sanitation workers face various health problems, including tuberculosis, respiratory system problems, skin problems, etc. Such problems have been unexplored, and hence one has to attempt to study the health problems of women sanitation workers.

2.3 Hypothesis

- The respondents have good facilities in their areas.
- The respondents have better work satisfaction in their work.
- The respondents have good health conditions.

2.4 Scope of the Study

At present, sanitation workers are the most indispensable section of our society, and they play a valuable role in keeping our place of living hygienic and clean. The sanitation workers belong to the marginalized section of the society as they belong to the lowest caste community. Sanitation workers today are the same community that has been exploited and forced to do manual scavenging. They face numerous problems at their workplace. Sanitation workers are the only section that is mainly affected by their work. They often live in dirty and segregated places. Due to their indigent working conditions, they are prone to various diseases. The importance of health is to safeguard human health. It has been observed that these workers have been neglected basic health facilities, especially women. In order to improve their health, the government needs to take the necessary steps. The study aims to study the socio-economic conditions and their health conditions with a special focus on women sanitation workers in Delhi. The following sections outline the methodology used in the current study:

- Location of the study
- Research design
- Sampling method
- Collection of data

- Techniques of analysis

2.5 Location of the study

Among the fastest-growing cities in India, Delhi is no exception. Delhi is home to heterogeneous communities representing different cultures, religious beliefs, income levels, health conditions, and living standards. The city is an example of the refashioning of quality of life. India's capital city, Delhi, is one of the fastest-growing globally, with a population of approximately 16.7 million as of the 2011 Census. Among Indian metropolitan cities, Delhi ranked second after Mumbai in 2011.

The landscape of Delhi has changed from a rural to an urban populace due to rapid population growth. Table 2.1 depicts the transition from rural to urban areas in Delhi during the previous three decades.

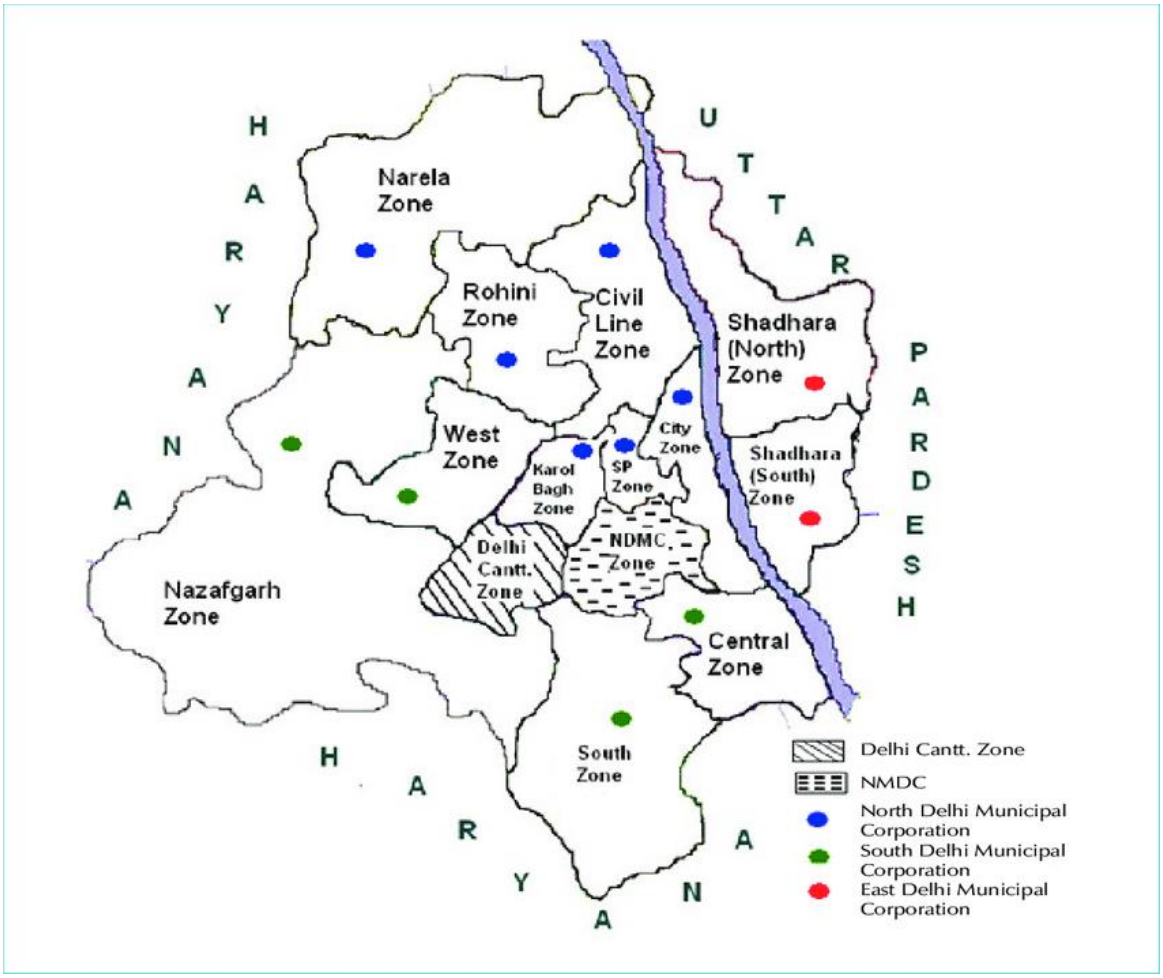
Table 2.1: Area-Rural and Urban

Sl. No.	Classification of Area	1991		2001		2011	
		Sq. Km	%	Sq. Km	%	Sq. Km	%
1.	Rural	797.66	53.79	558.32	37.65	369.35	24.90
2.	Urban	685.34	46.21	924.68	62.35	1113.65	75.1
	Total	1483.00	100.00	1483.00	100.00	1483.00	100.00

Source: Census of India, 1991, 2001 & 2011

Delhi is one of the developed cities in India. Under Delhi's heritage, the city produced many social reformers, revolutionaries, politicians, researchers, scientists, sportspeople, etc. For the field study, I have selected the north Delhi municipal corporation, which includes Karol bagh and Civil lines. The selection of the study area was based on the issue of discrimination on a daily basis in sanitation work in the Municipal Corporation of Delhi (MCD) and New Delhi Municipal Council (NDMC). Current women sanitation workers in MCD and NDMC were selected for the study, and a structured interview schedule and the case studies and verbal communication were established.

Figure 2.1: Map of Delhi as per MCD Zones



Source: URL: https://www.researchgate.net/figure/Map-showing-zones-under-Municipal-Corporation-of-Delhi-and-New-Delhi-Municipal-Council_fig1_276272644

The study was conducted by the Municipal Corporation of Delhi. MCD is divided into four zones, namely North Delhi Municipal Corporation, South Delhi Municipal Corporation, East Delhi Municipal Corporation, and New Delhi Municipal Corporation. In this study, the researcher included two areas.

- Karol bagh
- Civil lines

For the purpose of selecting samples, two areas were taken into consideration. Baba colony and 100 quarters from Karol bagh and civil lines were selected for the research study. Due to COVID-19, researchers were limited to these two areas. Travelling has been a major limiting factor for covering other zones. Delhi is one of the Developed cities in India. The city is divided into five administrative zones East, West, North, South, and Central. One

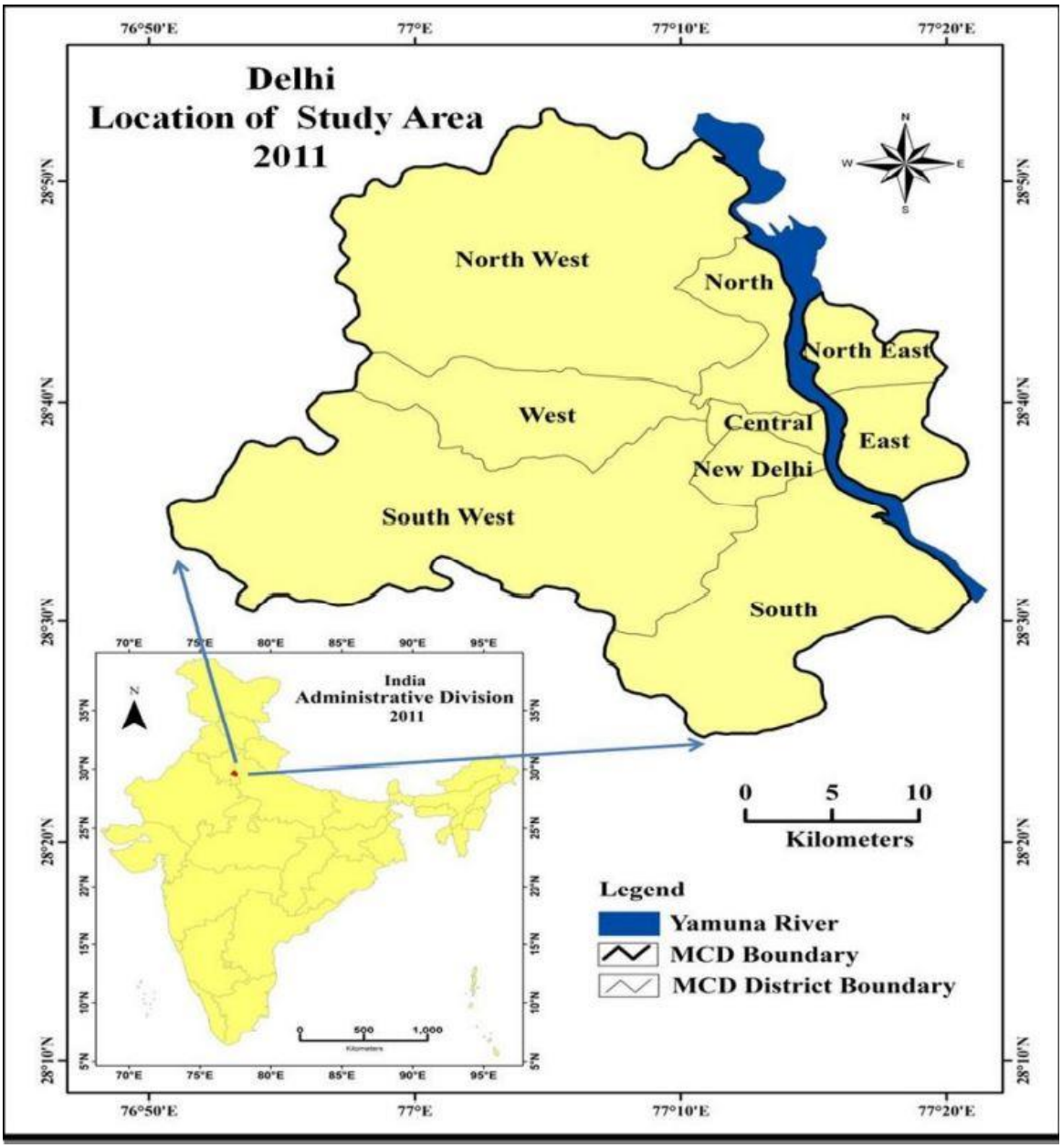
Research area is Karol Bagh, which is in central Delhi has been selected purposely as the study area for this research since the research scholar is currently studying at Jawaharlal Nehru University, it is accessible to do research conveniently and which is located in the center of Delhi. Over 200 sanitation workers live in 100 quarters located in Karol Bagh in Delhi. The MCD is divided into 12 zones, each of which is divided into three municipal corporations. The 12 zones that fall under the MCD are listed in the table below.

Table 2.2: MCD Zones

CIVIC BODY	ZONES UNDER MCD
North Delhi Municipal Corporation	1. Pitampura 2. Karol Bagh 3. Sadar Paharganj 4. Civil lines 5. Narela 6. Rohini
South Delhi Municipal Corporation	1. Central Delhi 2. South Delhi 3. West Delhi 4. Najafgarh
East Delhi Municipal Corporation	1. Shahdara South 2. Shahdara North
New Delhi Municipal Council	Babar Road, Bengalimarket, Barakhamba Road, Connaught Place, Feroz Shah Road, Tilak Marg, Shershah Road, Kaka Nagar, Punchkuan Road, Minto Road, North Avenue, Talkatora Lane/Road, South Avenue, President Estate, Central Secretariat, Ashoka Road, Parliament Street, Janpath, Rafi Marg, Jantar Mantar Road, Pandara Road, Shahjahan Road, Rabinder Nagar, Golf Link, Sujan Singh Park, Bharti Nagar, Akbar Road, Aurangzeb Road, Tughlak Road, Man Singh Road, Maulana Azad Road, Teen Murti Marg, Lodhi Colony, Jor Bagh, Ali Ganj, Laxmibai Nagar, Kidwainagar, Sarojininagar, Naurojininagar, Safdarjung Enclave, Brig Hoshiyar Singh Road, Race Course Road, Willingdon Crescent, Kautilya Marg, Panchsheel Marg, Shantipath, Chanakya Puri, Netaji Nagar, Moti Bagh.

Source: Gupta B, Arora SK (2016), "A study on management of municipal solid waste in Delhi", *Journal of Environment and Waste Management*, 3(1): 130- 138, June 2016.

Figure 2.2: Delhi District Map



Source: Kumar, Ahswani (2013), "Existing situation of Municipal Solid Waste Management NCT of Delhi", *India, International Journal of Social Science*, Vol 1, December 2013.

Delhi occupies an area of 1484.46 square kilometres (0.4% of the geographical area of India). The Union Territory of Delhi is bounded on its eastern side by Uttar Pradesh, and on its western, northern, and southern sides by Haryana. Delhi covers an area of 1,484.46 square kilometres (0.04 percent of the total area of India). MCD covers an area of approximately 1399.26 square kilometres. This area consists of the New Delhi Municipal Area, the President's House, the Prime Minister's House, the Parliament House, the Supreme Court, and Connaught Place. The MCD has authority over 94 percent of the land

area and 97 percent of the people in Delhi, while 6 percent is under the jurisdiction of the New Delhi Municipal Council and Delhi Cantonment Board.[42]

2.6 Research Design

The descriptive and analytical research were used for this study, with the purpose of describing the status of women sanitation workers in the study area and assessing their health and socioeconomic conditions. Sanitation workers were divided into two categories based on their employment status: permanent and temporary employees. The exploratory cum descriptive research design have fulfilled the study's aims. The study's objective is to understand better the subject and how the established parameters and health plans affect women's empowerment. One of the essential social measures of women's empowerment is their health. A healthy woman will be more productive and better able to contribute to the development and welfare of her family, society, and country as a whole. Empowerment also refers to a person's ability to make decisions and exercise options about various social, economic, and political issues that affect her life. The present study intends to analyze and evaluate the health condition of women sanitation workers. This was a survey-based research project. The project is based on data gathered during the field survey. Questionnaires, field observations, and in-depth interviews will be employed to collect data and information. Sanitation workers were asked about their demographics, work-related information, socio-economic conditions, workdays, general health impairments (accidents, injuries, complaints, and diseases), knowledge, attitudes, and practices regarding self-protective behaviours during face-to-face interviews. Sanitation workers' work conditions were recorded using an observation form in regard to environmental factors. One, therefore, used the following method:

- In-depth discussions
- Narratives and oral histories
- Group meeting

[42] Kumar, Ahswani (2013), "Existing situation of Municipal Solid waste Management NCT of Delhi", *India, International Journal of Social Science*, Vol 1, December 2013.

• Observation and diary keeping

• Questionnaire

These techniques aided in eliciting information from women employees. This is, however, a participatory and dialogic method that was very useful in understanding their lives, work, and struggles. In-depth interviewing, also known as unstructured interviewing, was applied in which researcher used prompt information to comprehend the interviewee's point of view or circumstance while stressing the challenges that sanitation workers confront.

This piece of work is based on primary and secondary research undertaken with women sanitation workers from permanent and temporary workers of MCD in Delhi. It highlights the nature of exclusion and discrimination faced by women sanitation workers under the umbrella of economic discourse (social mobility), development discourse (lack of knowledge and access to government schemes and caste certificates), and emotional distress. My study brings forth that women in the community of sanitation workers have been observed entrapped in the layers of discrimination.

2.7 Sampling Method

A stratified random sample survey of 200 respondents living in two different locations in Delhi were carried for the study. The sample survey was categorized into permanent and temporary women sanitation workers as they represent two different economic categories. Altogether, 200 respondents were surveyed from the two different areas. Structured interviews were conducted with each woman sweeper. Interviews were focused on income and health problems, ranking of castes, utilization of government health facilities, and educational level.

2.8 Collection of Data

Primary data was collected from the permanent and temporary sanitation women workers in Delhi. The researcher used a stratified random sampling method to select the sample respondent. The sample respondents were questioned using an interview schedule explicitly designed for this purpose. The researcher collected the data by interviewing the respondent directly. Secondary data was gathered from books, journals, research reports, and other published materials in the research field. For this study, two data collection tools were

developed. The first one was the worker's list received from the respective offices, which was used to identify the respondents based on the nature of the job at the time of availability for interview.

2.9 Techniques of analysis

The data collected from the respondent through the interview schedule were analyzed using data interpretation. Tables are used for presenting both qualitative and quantitative data. In a tabular format, information can be consolidated into a concise format that can present large amounts of information. A table also presents information about various variables, i.e., age, gender, and socio-economic status of workers. This information can be presented in several ways. It is possible to perform it in a graphical, tabular, or textual format. Rate, ratio, and proportion can be used to display descriptive qualitative data with categorical variables.

2.10 Summary

This chapter presents the design of the study. It includes the objectives of the study, scope of the study, location of study, sampling design for the study, data collection, plan of analysis, and the chapter scheme.

Chapter-3

Review of Literature

Introduction

This chapter presents the associated literature that was reviewed in order to gain a better grasp of the topic and to interpret the results in a systematic way. The reviews came from various sources, including books, journals, and newspapers. It gives us background knowledge on the study and aids us in comprehending many elements of the issues at hand. In any discipline, the literature serves as the foundation for all subsequent studies. If the investigator builds on the basis of knowledge provided by the literature study, the investigator is likely to overlook previous work on the same topic. The following titles have been used to categorize the literature reviews:

1. Study of Caste System
2. Study of Caste Discrimination
3. Study of Manual Scavenging
4. Study of the Health Status of Sanitation workers
5. Study of Socio-Economic Conditions of Urban Sanitation Workers
6. Study of Public Health

3.1 Study of Caste System

The study of sanitation work is not possible without understating the caste system in India. Over the centuries, the lowest castes were forced to do menial jobs so that the higher caste could enjoy better health and hygiene. The system of manual handling and disposal of night-soil is continued only in India. There are numerous difficulties in defining the caste system. The enormous literature generated on the caste system has created more doubts than clarifications. The source of confusion is the application of different perspectives to the analysis of the caste system. Barth (1960) and Berreman (1967) emphasize that caste is a structural phenomenon as it reflects upon the general principle of stratification with somewhat different manifestation and functioning than other forms of stratification. Dumont (1970) and Leach (1960) consider caste as a cultural system represented through the prominence of certain ideas found particularly in India. Baily (1963) argues that caste is a ‘closed system’ of stratification, hence organic in nature. Whereas Beteille (1967) takes the stand that the caste system is becoming ‘Segmentary’ because of these controversies,

there are some 'Conjectural Theories' about its origin, and scholars hold certain 'value biases about the system itself.

The Brahminical origin of the caste system has been greatly emphasized that the entire caste system as it has come down to us is of Brahminical origin. The priests were, therefore, the strongest advocates of the caste system. They applied the principle of exclusion and inclusion vigorously to strengthen their position in society. Such a process of selection/rejection resulted in diversification of caste, occupational and ritual structure, and caste is being considered to be a tyrannical system.

The British Government did not discourage the malfunctioning of the system but rather encouraged its distorted continuity by according higher statuses to specific groups, granting titles, land, etc. the mobility movement, particularly among the lower castes were so weak that they could not be considered an attack on the atrocities of the caste system. The system was never based on the universalistic principle of division of labour, justice, equality, and dignity of work. The British in India never discouraged the continuity of functions of the caste system.

Caste has always been a dynamic system. Its continuity from time immemorial is conclusive proof of its flexibility and adaptability. If we accept this view, we should consider caste as a 'processual' system of social relations. The system was attacked in the past and was restored when it marched towards ruination. It has been a double consequences system throughout its history. Whenever dominance of certain 'Jatis' was attacked, other 'jatis (lower ones) were elevated. Those who were attacked were not dropped, and those who were elevated remained within the system. Thus, we should study both processes of mobility upward and downward.

The great Indian anthropologist, M. N. Srinivas, whose two monographs, '*Religion and Society among the Coorgs and the Remembered Village'*, are both 'classics'. He emphasizes the 'Social Structure' of these villages, happily showing their solidarity and overall smooth functioning. He sees caste society as being marked by two characteristics: Separation and dependence, or hierarchy and interdependence.[43] Untouchables, according to the prominent German sociologist Max Weber, have never revolted against the oppressive system because they have assimilated its values. Gunnar Myrdal dismisses

[43] M.N. Srinivas. (2012). The Remembered Village, Oxford India Perennials Series, p-166.

religious belief' as irrational or a barrier to economic development, seldom bothering to provide evidence for his views, which frequently border on the unbelievable.[44]

Gerald Berreman argued that not only is caste a worldwide phenomenon, but that untouchables and black Americans might be meaningfully compared. According to Berreman[45], Cross-cultural comparison is critical to scientific development. He recognizes that there are differences between Black Americans and Indian untouchables, but he does not think that the two phenomena are incomparable because they are different. Everything is to some extent unique, he writes, but there can be no science of the unique. According to Berreman, the concepts of caste, ethnic stratification, and race are not fundamentally distinct. For example, race as a basis of social position is always a socially determined category that only poorly conforms to genetically inherited qualities. As thus, caste, race, and stratification are all birth-ascribed systems that are equivalent.[46]

Uma Chakravarti examines in her book that the caste system through the lens of feminist thought. Caste, as well as patriarchy in its various manifestations, which posed a new challenge to the women's movement's sisterhood. The perspectives of the past are discussed. The author, according to him, believes that the nature of patriarchy is linked to social structure. Our society is primarily based on caste. There is strong patriarchy in the Brahmin caste, which is at the top of the caste system. The other castes in the hierarchy were influenced by the Brahminical patriarchy, but not in the same way. In tribal communities, things are different. From the perspective of gender and patriarchy, the book's analysis led to a better understanding of the caste system.[47]

3.2 Study of Caste discrimination

Dalit, both in its Sankritic and Hebrew root usage, means ‘broken’, ‘downtrodden’ which really describe the effect of oppression. In a broader sense, Dalits refers to all downtrodden people. They are generally called ‘Harijans’, Scheduled castes or untouchables.

Dalit is thus both sociological and theological category. There is a large section of the Indian population that is 'poor,' (really impoverished or below the poverty line), but also specific parts of the population, such as the Scheduled Castes, backward castes (lowest ranks in the caste hierarchy), and tribals (who are not part of the caste system). In other

[44] G. Myrdal., (1968), “Asian Drama: An Inquiry into the Poverty of Nations”, *New York. Pantheon*, 3 vol, pp. 104-12.
[45] Berreman, G. D. (1972), “Race, Caste, and Other Invidious Distinctions in Social Stratification”, *Race, 13*(4), 385–414.
[46] ibid.
[47] Chakravarti, U. (2018), *Gendering caste: Through a feminist lens*, Sage Publications, Private Limited.

words, except for exceptional individual skill, random fate, or uneven sectoral uplift benefits, their economic and social status is determined at birth. The poor thus form both an economic and a social sector. Both class and caste determine their life opportunities and access to primary life resources. People are not equal despite the democratic and religious rhetoric about equality and justice. There is a socio-economic structural history of 'grace' and 'damnation' that imprints us all, according to our point of entry into the unevenly controlled and distributed physical, social, cultural, intellectual, and spiritual goods, which are the foundation and precondition of human life Norman (1975). This truth becomes self-evident in the case of the Scheduled Caste of India), Predominantly made up of former 'outcaste' groups or 'ex-untouchables' who form the inner core of poverty and continue to suffer the stigma of untouchability (unlike their other poor relatives, the tribal and other backward castes).

Historically, the Dalits are a prime example of an oppressive system in India where socio-culturally ordained fixed groups have often remained at a disadvantageous position. They are the main body of the poor and oppressed in India. We feel generalization about the poor does not reveal who the poor are, what their origins are or the reasons for their persistence and such generalization only serves to hide their true situations. Caste ideology now encompasses a nexus of socio-cultural, economic, and political influences, governs people's lives, and legitimizes the hierarchical order and power of the privileged. There is a positive correlation between socio-cultural discrimination and the continuation of poverty.

The Indian reality is based on a centuries-old caste system. Upper castes have exclusive property, wealth, education, social status, and political power. Based on the caste system sanctified by Brahmanic Hinduism, India's social structure is stratified, with inbuilt inequalities and injustice. Despite its great tradition of spiritual wisdom and scientific understanding, and remarkable modern advancements, India is marked by poverty, illiteracy, and unemployment.

Destitution and dehumanization are the Dalit conditions. Dalits have historically been the most marginalized, oppressed, exploited, and uneducated in our society. Through three thousand years of our history, they have been socially, culturally, economically, and politically oppressed and ostracised. Omprakash Valmiki (2003), in his book '*Joothan*', discussed the pain of his caste, which is interlinked with their identity. He narrates that he was badly treated during his childhood because he was a Dalit. He had no choice but to

sweep the school's floor—the caste-based discrimination faced by *chuhra* or *chamar* community. Dalit life is extremely painful. Dalits were dependent on leftover foods and were engaged in dehumanizing work. He also mentioned that they were responsible for doing all the cleaning and sweeping work in society. They were entirely dependent on upper-caste mercy. Dalit writers themselves describe Dalit autobiography as "narratives of pain." It is a pain that is connected from one incident to the next incident. It is pain that binds individual Dalit together into one community who suffers. *Joothan* (1997) by Omprakash Valmiki, through this book, untouchability is manifested through narrative, particularly in the creation of Dalit subjectivity and the flow of events.[48]

A K Shiva Kumar (2013) stated at the 10th annual Kolkata Group workshop on Healthcare, Women's Status, and Social Justice in India. A large gathering of policymakers, development practitioners, NGOs, scholars, activists, journalists, politicians, and development specialists gathered to assess the situation of women's health, social justice, and equity in India. Economic growth in India is excellent and necessary, according to Amartya Sen, because average incomes must be raised to meet adequate living standards, and massive income redistribution alone will not suffice for shared well-being.[49]

Marry Chatterjee stated in 'Mobilization of urban Sweeper' that sweepers are involved in a movement towards a system based on class rather than caste. It is not as yet, a movement towards revolution or communism for sweepers are, in a sense, committed to the status quo. Having the monopoly of sweeping (only a limited number of other castes being prepared to replace them) they are not without power in the social system in which they find themselves.[50]

In his study, Rama Sharma (1995) tried to figure out how the concept of stigmatised identity relates to the Bhangis and their attempts to shed that identity, as well as how that identity manifests itself in their political and economic challenges. as well as the forces reinforcing their stigmatised identity, resulting in a breakdown. In Delhi, this is the area of study. Anthropological approaches and methodologies were utilized in this research. Scavenging is done by a particular caste in Delhi and is also called the *Jajmani* system. Scavenging is mainly done by Bhangis in Delhi. The nature of employment is majorly in the private sphere. The men and women are still in the traditional caste occupation, known by sweeping

[48]Omprakash, V., & Prabha, M. A. (2003), "Joothan: A dalit's life", *Translated from Hindi by Arun Prabha Mukherje, Samya, Calcutta*.
[49] Kumar, A. S. (2013), "The neglect of health, women and justice", *Economic and Political Weekly*, 25-27.
[50] Chatterjee Marry, *Mobilization of Urban Sweepers*, Economic Political Weekly, Vol.9, No. 48 (Nov.30, 1974), pp.1978-1979.

and scavenging. This occupation is determined by the caste system. Their children are vulnerable to taking up this job. The Bhangi identity has provided a framework within which members of the Bhangi caste attained group identity. Bhangi has its own temples, different ways of celebrating festivals. This sets them apart from their other castes, a separate temple by the particular caste segregates them from the rest of society. After a period of time, some Bhangi set an example in the political arena, mainly through reserved seats in local municipal bodies. Once they get economically sound and influenced, they exodus from their previous social status. Such elite Bhangi suffers dual isolation. They are no longer at the level of other communities, instead they tend to cut themselves from their community. At the same time, they are not fully accepted by upper-caste members. The trade union has become a platform for the Bhangis to fight for their demands.[51]

Bindeshwar Pathak worked on the liberation of scavengers through low-cost sanitation. To some extent, low-cost sanitation has adopted various schemes of Sulabh Shauchalya. Sulabh Shauchalya is one of the formal organizations for the liberation of manual scavengers. This study is based on an experimental research design. Bihar is the focus of this research. Using purposive sampling, a total of 600 units were chosen from four liberated scavengers and unliberated scavengers. Further, with the help of different interview schedules, the data has been collected. This Sulabh Shauchalaya scheme has helped to change the attitude of the other caste people towards manual scavengers.[52]

Chatterjee (1981) concentrates her research on Benaras urban sweeper community. It looks into how sweepers organise their life and what keeps them together as a group separate from the rest of society, as well as the ways they employ to try to better their living and working conditions. The study also looks into men and women's relationships and the various shapes they take in different aspects of their social organisation. The data suggest that the sweepers' living is not changing significantly, yet their conduct is becoming more in line with that of the surrounding society. The research illustrates that, despite government efforts to lift sweepers out of their traditional position of servitude, vocational mobility is limited. The study looks into the community's role and status of women. Women, while articulate and free in some areas, do not have the same level of freedom as men in all areas. In her study entitled “Reversible Sex Roles: A Special Case of Banaras Sweepers” stated

[51] Sharma, R. (1995), *Bhangi, scavenger in Indian society: Marginality, Identity, and Politicization of the Community*, MD Publications Pvt. Ltd.
[52] Pathak, B. (1999), *Road to Freedom: A Sociological Study on the Abolition of Scavenging in India*, Motilal Banarsidass Publisher.

that sweepers in Banaras are now urban communities. They do not send remittances to the villages through rural links are an essential part of their network. Girls come and go as birds to and from the rural areas. Challenges in their occupation, as well as geographical mobility, are leading to the fusion of endogamous sections previously having a hypergamous relationship. Condition is altering but the life pattern of the sweeper does not change much, although the style of behaviour is somewhat similar to the larger society. Kinship is still of great importance. Social mobility is low, and the group is severely separated from other castes and social classes. Sweepers are beginning to bargain, not because of government policies but because they are better placed than other low castes in that their labour is now in high demand, and few castes are prepared to challenge their monopoly of a ritually polluting yet indispensable task. Sweepers are working in the spirit of trade unions, and their revolutionary potential and other low castes must not be underestimated.

According to Agarwal (1998), educationist is one of the essential instruments for social and economic growth and modernization in both developing and developed countries. Education will bring about desired improvements in literacy levels, attitudes, values, and skills. The school system, as well as the media in both developed and developing nations, contribute to the reinforcement of patriarchal norms and attitudes. Women and girls in the lower classes have been and continue to be discriminated against, and they do not have equal access to educational opportunities or the media.

Ghurye (1969) discussed caste as a product of Brahmanism of Indo Aryan culture[53]. Ketkar (2002) discussed caste through discussing the varna and jati system[54]. He asserted the presence of sub caste. Hutton (1951) encapsulated the consciousness of the legal right of citizenship amongst the people from the exterior caste and primitive religion. Hutton described those devadasis as caste, which was the profession. Hutton also described that caste is fixed by birth that dictates custom-related food, purity, occupation, marriage, etc., and controls the behaviour of members of the community. Occupational groups that migrated from one part to another part of India formed a new sub caste.[55] Ketkar opined that "a caste is a social group having two characteristics: (i) membership is confined to those who are born of members and includes all persons so born. (ii) the members are forbidden by inexorable social law to marry outside the group". C.H. Cooley says, "when

[53] Ghurye.G.R., (1969). *Caste and Race in India*. Bombay: Popular Prakashan.
[54] Ketkar, S.V., (2000). *History of Caste in India*, Delhi: Low price Publication.
[55] Hutton.J.H (1951), *Caste in India*, Bombay.

a class is somewhat strictly hereditary, we call it a caste". Andre Beteille states that "Caste may be defined as a small and named group of persons characterized by endogamy, hereditary members and a specific style which sometimes includes the pursuit by the tradition of a particular occupation and is usually associated with a more or less distinct ritual status in a hierarchical system based on the concepts of purity and pollution". In the words of M.N. Srinivas, "Caste is a hereditary the endogamous usually localized group, having a traditional association with a more or less distinct ritual status in a hierarchy with an occupation and a particular position in the local hierarchy of castes. Relations between castes are governed among the other things, by the concepts of pollution and purity, and generally, maximum commensality occurs within the caste".[56]

S.K. Thorat and A. Deshpande (2002) also seek to examine the economic function of caste in the Indian context. They argue that the caste system has resulted in large-scale economic inequities between castes in terms of resource ownership, income, employment, and education, especially between high and low castes. Thorat in his work 'caste and labour: Aspects related to discrimination and deprivation'.[57] He relates caste and labour on the basis of available data on various states in India. He demonstrates that the magnitude of wage labour among the SCs is almost two times higher than the non-SC groups. He also said that the employment rate and wages among them are low. It suggests that caste produces economic gains for some and discriminates against others.[58]

According to Malkani. N. R (1969), in his book 'Clean People and Unclean Country' discussed that India is the only country in the world where the removal of human excreta is traditionally the responsibility of a specific group of people. This is a disgrace to the country. Some people are compelled to do such inhuman and dirty work in society. They are neglected sections of society and remain under heavy bondage. The country that earned liberation from British slavery but was unable to free more than half a million individuals known as Bhangis, Mehtars, and Balmikis from human servitude, and still engaged in their traditional occupation of sweeping and scavenging. This traditional system precipitates them with limited job opportunities.[59]

[56] Srinivas, M. N. (1962), Caste in modern India and other essays, *Caste in modern India and other essays.*
[57] Thorat, S., (2006), "Caste and Labour: Aspects related to discrimination and deprivation", In M.E. John, P.k. Jha and S.S. Jodhka, ed., *Contested transformations: Changing economics and identities in contemporary India*, pp. 290-318, New Delhi: Tulika Books.
[58] ibid
[59] Malkani, N.R., "*Clean people and Unclean Country"*, Harijan Sevak Sangh, Delhi.

Accoeding to Shamlal (1991), in his book *The Bhangis in Transition*, the wife of a Bhangi plays a meaningful role in the family's economic activities. She plays many roles at her home. She looks after children, cooks food, arranges marketing of daily requirements. Besides, she also manages to do scavenging work. Their duties are pretty heavy. She generally leaves home early in the morning and returns in the afternoon. She plays the role of breadwinner of the family. Among the scavengers, it is observed that women are more engaged in scavenging. The status of women is clearly defined in his family.[60]

According to Iravati Karve (1965) in her book "Hindu Society- An interpretation" (1965), the Indian Caste is a society made up of independent units, each having its traditional pattern of behavior. This has resulted in a multiplicity of norms of behavior, the existence which has found a justification in a religious and philosophical system.[61] According to C. Bougle, three features of repulsion, hierarchy, and hereditary specialization define the caste. Sociologists like Hutton and Bougle (1991) gave a Descriptive analysis of the system. Bougle tried to explore the notion of hierarchy and difference. It not only defines the pattern of complicated religious and secular culture but it established the psychology of different social groups. And created a social distance among the people and graded into the hierarchy of superior and inferior relationships.[62]

Dipankar Gupta (2002) similarly raises questions on the Dumontian concept of true hierarchy. He writes, "Where there was once seeming tranquillity of caste connection, a multiplicity of aggressive caste identities, each with its own privileged and angular hierarchy". He has addressed numerous hierarchies in which each caste places a high priority on itself and may not entirely fit the brahmanical concept of pure hierarchy.[63]

Beteille (1969) studied caste and other aspects of social stratification such as economic position, lifestyle, and level of education, political representation, and occupation. In his study of 'caste, class, and power'. In rural society, the hierarchy of caste, class, and power are all discernible, according to his research. It is not required that a Brahmin from the top caste is poor or that a Brahmin from the lower caste cannot be financially secure. In this case, the dominant caste may be of lower social position, or the inferior caste may be able to achieve power due to their social position. He claimed that higher caste groups do not

[60] Shyam L., (1991), *The Bhangis in Transition: Delhi*, Inter-India Publication.
[61] Karve, I., Hindu Society-An Interpretation, 2nd edn (Deshmukh Prakashan, Poona, 1968; first published in 1961), *and Introduction by W. Norman Brown, p. vi*, 54-64.
[62] Bouglé, C. (1968) "The essence and reality of the caste system", *Contributions to Indian Sociology*, *2*(1), 7-30.
[63] Gupta, D., (2004), "*Caste in question: Identity or hierarchy?",* (Vol. 12). Sage Publication.

always have a higher status in the current class and power structures. As a result of shifts in class and power in India, the caste system looks to be altering.[64] Even though classes can cross caste lines in many situations, and given the widespread mobility within the caste system, there is still much overlap between caste and class. Several scholars, including Thorat, Barbara Harris White, and others, have referred to this overlap as a result of and deriving from caste oppression and injustice.

Gail Omvedt (1982) also underlines the strong relation between caste and class. She argues that "caste is a material reality with a material base and important economic results". She claims that the caste system has historically moulded the Indian economy's core foundations and continues to have significant economic ramifications now. She claims that caste and class were heavily intertwined during colonial control, and that this relationship still exists now. In the British period, she suggests, the educated elite was almost entirely comprised of people from the upper castes. The vast majority of manufacturing workers were men from peasant and artisan castes with *shudra* status, while dalits could find some jobs in factories or on roads and railways; generally, they filled the lowest and most unskilled jobs. Merchants and moneylenders were mainly drawn from the *vaishya* castes and it was from their ranks that an industrial bourgeoisie began to take shape.[65]

The caste-class nexus finds a sufficient treatment in the work of Andre Beteille titled "Caste, class, and power: Changing pattern of stratification in a Tanjore village" (1996). In his study of Sripuram village, according to him, class and caste overlap to a considerable extent, but also cut across each other at various points. Beteille maintains that the association between caste and class was the maximum in the traditional village structure, but things have changed significantly over time. In the course of time, land ownership, occupation and education are becoming 'caste free.'[66]

Joan Mencher (1996) in her work 'The caste system upside down', discusses the economic conditions of the untouchable labourers. Here, he discusses untouchable labourers in the Chingleput district of Tamil Nadu. He argues that from the viewpoint of those at the bottom

[64] Beteille, A. (1969), Castes old and new. Essays in social structure and social stratification, *Castes old and new. Essays in social structure and social stratification.*

[65] Omvedt, G., (1982), Class, caste and land in India: An introductory essay, In G. Omvedt, ed., *Land, caste and politics in Indian states*, Delhi: Authors Guild Publications, pp. 9-50.

[66] Caste, C. (1965), Power: Changing Patterns of Stratification in a Tanjore Village, *Berkeley and Los Angeles: University of California Press*, pp-151.

of the caste system, castes function primarily as instruments of economic exploitation, not as systems of special privileges for each caste.[67]

D.L Sheth (2005) also seeks to analyze the way caste constitutes a limit to the class location of an individual. Here he examines the class implications of the traditional caste system in modern times. He argues that while the traditional high status of higher-caste groups has become an asset for them in the modern setting, the low status of the lower caste works as a liability for the latter. This is because; the occupational functions of the lower castes in the traditional society have lost their relevance in the modern occupational system. Also, the denial of education and wealth to the lower castes in the traditional caste system has acted to their disadvantage in their entry into the modern sector. In short, they have become an 'underclass' in the modern sector. They remain at the bottom of both the caste and class hierarchies.[68]

According to a study conducted on sanitation workers in Tiruchirappalli, 70% of sanitation workers suffered from health issues such as gastrointestinal, orthopedic, skin-related, and asthma-related diseases. 70% of people are stigmatized by society.[69] According to a study conducted by Sudhir Naik et al., only one out of every 87 workers used gloves while working, and none wore masks or boots or properly covered footwear.[70]

Freeman points out that historically untouchables had a near-monopoly on specific salaried jobs by disposing of wastes. For instance, any other caste would not think of taking up work as sweepers or scavengers. So that tens of thousands of Untouchables thus had a chance to find salaried work in what is commonly called the 'organized sector' of the economy, in other words, jobs that provided social protection. In the village of kapileshwar, not far from Bubaneshwar, the *Hadis*, a caste of sweepers, are traditionally the lowest and the most despised. However, as the capital has expanded, members of this caste have been engaged in massive numbers as government employees, that is, as sweepers, with a monthly salary, social benefits, and, of course, job security. Freeman writes a remarkable case of upward

[67] Mencher, J. P., (1996), The Caste system upside down, In D. Gupta ed., *Social Stratification*, pp. 93-109. New Delhi: Oxford University Press.

[68] Sheth, D.L, (2005), Caste and Class: Social reality and political representations, In G. Shah, ed., *Caste and democratic politics in India*, pp. 209-233, Delhi: Permanent Black.

[69]Sophia N.S., Pavithra S. (2017), "A Study on Sanitation workers at Tiruchirapalli", *Int J Applied Res*, 2017, Vol.3, Issue.4, pp. 186-70.

[70]Nayak S, Shenoi S, Kaur G, Bisen N, Purkayastha A, Chalissery J. (2013), "Dermatologic evolution of street sanitation workers", *Indian J Dermatology*, Vol.58, Issue. 3, pp. 246.

socioeconomic mobility in his work, while other castes have benefited less from modernization.[71]

Scavenging has been linked to caste in numerous texts dating back to the Narada Samhita and Vajasayeni Samhita, which attributed scavenging to slaves (Ramaswamy, 2005). The texts expose that the work of cleaning human waste has been associated to coercion for a long time. Throughout Brahminical society, work is assigned in accordance with ritual purity or pollution, and this logic dictates that removing human excrement is the dirtiest occupation, something that has been imposed on Dalits. During the colonial period, the advent of underground sewerage systems, dry latrines, and railway networks across the country transformed how Dalits were exploited for scavenging and sweeping occupations, and some of those practices persist today.[72]

3.3 Study of Manual Scavenging

Ajoy Ashirwad Mahaprashtra stated that Safai Karamchari Andolan (SFA) was established by Bezwada Wilson, the son of scavengers, and several human rights activists. The SFA works with a community-based organization to "fight not just manual scavenging but also the casteist mindset of Indian society"[73] For example, during 2004, the SFA sought to focus public attention on the rights of scavenging by organizing the *safai karamchari* community to demolish dry latrines in all the twenty-five districts of Andhra Pradesh.[74]

Vishwas Sheshrao Padole, KR Rajani conducted a study on *Mahars* in Maharashtra. It attempted to study their religion and belief system. As an untouchable, a Mahar was obligated to perform those tasks, which were considered as polluting by the higher castes. A Mahar carried firewood and cow dung cakes for burning the dead of a higher caste. The worst of all his duties was to remove dead cattle from the village streets. *Mahars* have the monopoly of the dead village animals, and the copper coins which in the name of the dead, are thrown to one side at the resting place or *visaviachi jaga*". The heinous thing that a Mahar did in the eyes of the higher caste was to eat the flesh of the dead animal.[75]

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[71]Freeman, J. (1977), *Scarcity and Opportunity in an Indian Village*, Menlo Park, CA: Cummings, pp. 100-110.

[72]Ramaswamy, G, (2005*) India stinking: manual scavengers in Andhra Pradesh and their work*, Pondicherry: Navayana Publishing.

[73] Ajoy Ashirwad Mahaprashtra, "Struggle in Progress", *Frontline*, 3 July 2009, [Online: web] Accessed 19 June 2009, URL:www.flonnet.com.

[74]Moses, Y. (2005), "A Movement to Eradicate Manual Scavenging in India", *Dalit International News Letter* 10, no 3.

[75] Vishwas Sheshrao Padole, KR Rajani, (2019) "The Mahars: A Study of their Religion and Socio-Economic Life", *International Journal of Humanities and Social Science Research*, 5(1) pp.39-45.

According to B Ravichandran, people who scavenge human excreta from toilets in India are usually called scavengers. As per the Government of India, they are *Safai Karamcharis*, a term covering a wide range of scavenging workers, including sweepers and sanitation workers in municipal areas. The dalit community still practices this occupation exclusively in India. There have been many committees established since independence to free the scavengers.[76]

According to Samuel Sathyaseelan, those who manually clean urban drains and septic tanks are not covered by the prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013. In this case, manual labour is also involved, and it involves cleaning excreta with your hands. Workers have to enter manholes to remove the blockage with their hands. In spite of court orders banning manual sewage pipe cleaning and mechanization, government bodies have blatantly ignored them. It's unfortunate that the new law neglects the plight of sewerage workers as well.[77]

3.4 Study of Health Status of the Sanitation Workers

Purushottam A. Giri, Abhiram M. Kasbe, and Radha Y. Aras studied the morbidity profile of Mumbai sewage workers. A substantial majority of workers in this study had symptomatic morbidities affecting the eyes, respiratory system, musculoskeletal system, gastrointestinal system, and skin. It was discovered in the research. Eye difficulties were the most common, accounting for 70.6 percent of workers, followed by musculoskeletal problems (68.0 percent), gastrointestinal problems (58.0 percent), and respiratory problems (52.6 percent), with the obstructive pattern accounting for 38 (48.1 percent) of the respondents. Skin problems affected 52 percent of workers, and injuries were seen in 39 (26.0 percent) of them, including minor cuts, abrasions, and lacerations.[78]

Raka Sharan surveyed women working in industrial and non-industrial groups in Kanpur. Her study's main goals were to examine women's working conditions, assess their socioeconomic status, and investigate their participation in trade union activities. Eighty percent of female workers in both the industrial and non-industrial sectors were between

[76] Ravichandran, B. (2011), "Scavenging Profession: Between Class and Caste?", *Economic and Political Weekly*, pp.21-25.
[77] Sathyaseelan, S. (2013), "Neglect of sewage workers: Concerns about the new act", *Economic and Political Weekly*, pp.33-37.
[78] Giri, P. A., Kasbe, A. M., & Aras, R. Y. (2010), "A study on morbidity profile of sewage workers in Mumbai city", *International Journal of Collaborative Research on Internal Medicine & Public Health*, Vol.*2*, Issue.12, pp.0-0.

20 and 35. Workers in the non-industrial sector were better qualified than those in the industrial sector. The working conditions for the female employees were deplorable.[79]

Guha points out that two of the most socially destitute groups in India are the Scheduled Tribes and the Scheduled Castes. Guha (2007) found that 28.9% of STs and 15.6 percent of SCs do not have access to doctors or clinics, and only 4.2 percent of STs and 57.6% of SCs had received vaccines. In India, socially disadvantaged populations suffer poor health outcomes due to their precarious economic circumstances and poor living conditions rather than their low status.[80]

Venkatesh C.D (2014) studied scavengers in Bangalore and their socioeconomic conditions. The study pertains to the state of Karnataka, specifically to the Bangalore urban district. In the study, the authors focus mainly on the health status of women scavengers and the government of Karnataka's policies and programs. Specifically, this study focuses on women scavengers who are exposed to a variety of hazards that can affect their skin, eyes, limbs, respiratory system, and gastrointestinal system. Using scavenger women as a case study, it examines their socioeconomic condition and rehabilitation. Based on demographics and attribution, the key finding of the study is that Bangalore scavengers are not a monolithic group. 31 percent of the 176 family members in 50 sampled households are illiterate. The same percentage of respondents is educated to the primary level. Only 0.34 percent of respondents have received technical training; 17.63 percent have a middle-level education. A few males are employed in white-collar jobs, but most of them are employed in blue-collar jobs. The idea of white-collar employment was unthinkable or nearly impossible for them in the past. Currently, 20 percent are still working as scavengers.[81]

Rashmi Agarwalla, Rambha Pathak conducted a study on rag pickers who are informal workers and collect recyclable material from garbage for daily wages. They work in hazardous conditions and are vulnerable to various diseases. From May to October 2016, an interventional study was undertaken. The study focused on the Department of Community Medicine and residents in the slums around HAHC Hospital in New Delhi, India. In their study, they found that 62% of ragpickers were male and more than half of

[79] Sharan, R. (1980), "Working conditions and job satisfaction among industrial women workers: A case study of Kanpur" *Indian Journal of Industrial Relations*, Vol.15, Issue. 4, pp. 605-610.
[80]Guha, R. (2007), "Adivasis, naxalities, and Indian Democracy", *Economic and Political Weekly*, Vol. XLII, Issue. 32, pp.3305-12.
[81] Venkatesh, C. D., "Socio Economic Conditions of Women Scavengers-With Special Reference to Bruhath Bangalore Mahanagar Palike (Bbmp) Karnataka", *International Interdisciplinary Research Journal*, Issue. 4, pp. 267-275.

them were illiterate (53%), while 33% had a high school diploma. In the ragpicker population, 60% of illiterates were males, 25% were older than 35 years of age, and 27% were adolescents and youth. A majority (51.3%) of rag pickers over 35 years old are women. During rag-picking, 43% of the ragpickers reported being susceptible to pricks by sharps (including improper syringe disposal). According to the Universal Immunization Program (UIP), only 13% had been immunized against tetanus. The most common diseases caused by sharp objects during rag-picking were tetanus and HIV/AIDS, while no one knew about hepatitis B or C.[82]

Sukanya Rangamani, Kannamedi Beemappa Obalesha, and Rakhal Gaitonde (2015) recommended in their research that the government should establish an adequate health monitoring and healthcare system for sanitation employees. They looked into the health of sanitation employees in a Karnataka town. They employed a non-medical epidemiological approach to discover sanitation workers' occupational health issues and poor healthcare access as a result of their illnesses. The occupational status and healthcare seeking practises of sanitation workers were mapped using a descriptive method. Injuries and chest pain were the most commonly reported diseases, according to the survey. The majority of workers continued to work despite the lack of adequate equipment. They neglected their illness at work because they didn't want to miss their paychecks or lose their employment. It was typical for them to self-medicate. They were witnessed drinking alcohol to cope with the inhuman work of cleaning septic tanks. However, sanitation employees' health and safety have never been studied in public health studies. Unlike other occupational dangers, sanitation work lacks particular protective regulatory rules to address health hazards.[83]

Sandul Yasobant studied musculoskeletal diseases among municipal solid waste collection workers in India. Waste management is a vital function for any country, and it necessitates the use of human labour. Those who work in municipal solid waste management face a variety of health hazards. Municipal solid waste management in developing countries like India necessitates a lot of physical effort. Musculoskeletal diseases are among the most common job dangers among municipal solid refuse collectors. Municipal solid waste

[82] Agarwalla, R., Pathak, R., Singh, M., Islam, F., & Parashar, M. (2017), "Effectiveness of awareness package on occupational health hazards among ragpickers of New Delhi", India. *Indian journal of occupational and environmental medicine*, *21*(2):89.
[83] Rangamani, S., Bheemappa, K., & Obalesha, R. G. (2015), Health issues of sanitation workers in a town in Karnataka: Findings from a lay health-monitoring study, *The National medical journal of India*, Vol.28, Issue. 2, pp.70-73.

workers who are particularly exposed to the musculoskeletal disease are evaluated in this study.[84]

Dounias G. conducted a survey of 151 municipal employees (72 solid-waste workers and 79 workers not exposed to waste). A self-administered questionnaire was used to collect socio-demographic data and total antibodies against the Hepatitis A virus (HAV). Anti-HAV (+) prevalence was substantially linked with occupational exposure to trash, age, number of years in service, and educational status, according to a univariate analysis. In comparison to municipal workers who were not exposed to garbage, municipal solid waste workers showed a higher prevalence of anti-HAV (+). Anti-HAV (+) was found to be substantially linked to employment duration. Anti-HAV (+) was found to have an independent relationship with occupational waste exposure and aging in a multivariate analysis. Their findings point to a possible causal role for occupational waste exposure in the development of HAV infection.[85]

Despite India's great economic performance following economic reforms in the 1990s, progress in improving the health of Indians has been highly uneven. Large discrepancies in health and access to health care remain, and have even widened across states, across rural and urban areas, and within communities. In India's health industry, three types of inequity have reigned. Historical inequities rooted in British colonial India's policies and practices, many of which were carried out long post-independence, socio-economic imbalances, revealed themselves in caste, class, and gender differences, as well as discrepancies in the availability and accessibility of health care. The efficacy with which India resolves imbalances in the provision of health services and ensures excellent care will be important to ensuring health for all in the near future.[86]

Omesh Kumar Bharti, Vibhor Sood conducted a study on “High Disease Burden among Sanitation Workers of Shimla Municipality in Himachal Pradesh, India” - A Leading Cause of Adult Mortality. The research looks into the work practices, accidents, illnesses, working conditions, and other risks that municipal solid waste collectors in Shimla face while performing their duties. A practical sampling approach and open interviews were used to

[84] Yasobant, S., & Rajkumar, P. (2014), “Work-related musculoskeletal disorders among health care professionals: A cross-sectional assessment of risk factors in a tertiary hospital, India”, *Indian journal of occupational and environmental medicine*, Vol.18, Issue. 2, pp.75.
[85] Dounias, G., & Rachiotis, G. (2006), “Prevalence of hepatitis A virus infection among municipal solid-waste workers”, *International journal of clinical practice*, Vol. 60, Issue. 11, pp.1432-1436.
[86] Nagraj, K. (2010), “Inequities in Access to Health Services in India: Caste, Class and Region*”, Economic and Political Weekly*, Vol. 45, Issue. 38, pp. 49-58.

choose 318 solid waste collectors, drainage cleaners, and septic tank cleaners for the study. Their bosses were included in the sample as well. Between July 27, 2012, and November 27, 2014 (28 months), 16 sanitary staff, including two women, died of different causes, average of one worker every two months. Most of the participants were in their mid-forties and had experienced cardiac issues such as heart attacks. A total of 33 sanitation employees died within two years of retiring, or before turning 61, the majority of them died of a heart attack. Periodic health surveillance of sanitation workers is critical for detecting early indicators of non-communicable diseases such as high blood pressure and diabetes etc., among them and educate them on the importance of a balanced diet as well as the dangers of excessive alcohol, non-vegetarian cuisine, and smoking. Treatment for communicable diseases is available nearby. However, the trend in sanitation workers' suffering is shifting from communicable to non-communicable diseases that are rarely treated early and, as a result, aggravate their issues.[87]

Types of Health care

Broadly health care may be divided into three categories i.e. (Mishra, 2004)

a) Informal Health Care: Informal health care can be defined as a non-paid one that constitutes non-professional treatment such as family members for whom these activities are not considered an occupation. Informal health care is treatment through cultural mechanisms where patients are diagnosed with home remedies.
b) Interface health care: Some occupations are on the borderline. These are traditional healer pharmacists in drug stores etc. They work for pay but are not scientifically trained, although they may have a wealth of experience and shrewd perceptions of what treatment will work.
c) Formal Health Care: Formal Health Care can be provided by a variety of professionals (from various systems of medicines), nurses, physical therapists, and physicians, etc.[88]

3.5 Study of Socio-Economic Conditions of Urban Sanitary Workers

In September 2017, after 10 sanitation workers died within 35 days of each other in the National Capital Region of Delhi, the Delhi Jal Board website posted a video it had produced on occupational health and safety (Vishwakarma, 2017). Nearly two years later,

[87]Bharti, O. K., Sood, V., Phull, A., & Kumar, V. (2016), "High disease burden among sanitation workers of Shimla municipality in Himachal Pradesh, India-A leading cause of adult mortality", *International Journal of TROPICAL DISEASE & Health*, 1-7.
[88] Mishra, P., & Newhouse, D. (2009), "Does health aid matter?", *Journal of health economics*, Vol.28, Issue. 4, pp. 855-872.

after three more deaths in the Delhi Jal Board sewer lines, the State government announced that they would provide safety equipment to sewer workers (Penkar, 2019).

A cross-sectional morbidity study was undertaken by Chellamma, p et al. (2015) among all sanitation personnel corporate areas. They looked at the health of sanitation workers in the Thrissur Corporation in Kerala. They looked into sanitation workers' treatment-seeking behaviour. They were interviewed utilizing a standardised schedule that had been pre-tested. According to the study, males made up 53.6 percent of the 601 workers. Only 79.2 percent of workers requested medical treatment, despite the fact that 34.4 percent of workers had at least one serious sickness. 43.36 percent of those surveyed had chronic illnesses, and 83.86 percent preferred newer technology. Personal protection equipment was provided to 53.9 percent of the workers, with 18 percent of them using it on a regular basis. Severe illness was linked to the male gender, low educational attainment, greater family size, and the lack of personal protective equipment, while chronic morbidities were linked to males, the elderly, and daily wage workers.[89]

Reginald Quansah (2015) studied the musculoskeletal symptoms of sanitation workers at a fish processing plant. Questionnaires, walk-through inspections, interviews, task analysis, and future workshops were among the tools employed. The surveys were completed and submitted by all 27 male participants. Except for one, all of the 11 operations were deemed safe. Participants' health was found to be jeopardised by their bowed backs, bowed legs, and heavy manual handling. A musculoskeletal ailment has been detected among sanitation employees, according to the study. Workers in the fish processing business have been found to have a higher prevalence of neck, shoulder, elbow, and hand diseases than the overall population.[90]

Narmadha S (2015) carried out a study among sanitation workers in Trichy. According to the survey, sanitary personnel does not receive any promotions or job enrichment until they retire. They work in the same field for the rest of their lives. Their complacency is the biggest impediment. They are content with their current situation. The municipal corporation has a policy of promoting lower-level employees to higher levels based on their abilities; nevertheless, sanitation personnel is unwilling to do so. They question the lifestyle

[89] Chellamma, P., & Vijayakumar, A. (2015), "Morbidity profile of sanitary workers in Thrissur Corporation, Kerala", *Journal of Evolution of Medical and Dental Sciences*, Vol. 4, Issue. 89, pp. 15468-15470.
[90] Quansah, R. (2005), "Harmful postures and musculoskeletal symptoms among sanitation workers of a fish processing factory in Ghana: A preliminary investigation", *International Journal of occupational safety and ergonomics*, *11*(2), 171-180.

of women sanitation workers, women who are engaged in sanitation work are not empowered. They trace two dimensions of their problem. First, women are dominated by male and their lifestyles.[91]

Vimal Kumar (2014) writes the various interventions of the government programs and strategies which relate to the lives of manual scavengers. By examining government regulations, the author reveals their implications for the community's lived realities.[92]

K.D. Ahire and S.M. Bhalerao (2017) conducted a study of occupational health-related problems of sanitary workers in Kolhapur City. The sample size consisted of 50 sanitary workers. The respondent of the study involved both female and male sanitary workers. Sanitary workers were asked if they had experienced health problems. The data shows 50% of males and females are suffering from body aches, tiredness, headache due to their occupation. The data identified that male and female differences in health problems suffered through sanitary occupation. Musculoskeletal disorders, skin problems, chest pain, cough, and cold, infection, respiratory disorder, gastric problems were identified as health issues associated with being a sanitary worker. There was a lack of awareness observed in sanitary workers regarding the use of personal protective equipment.[93]

T. Juliet Nisee (2017) investigated the issue of sanitation workers and the relationships between their profile characteristics. The study's goal is to discover the elements that influence sanitation workers' job satisfaction. It was shown that the majority of workers do not want to involve their children in the same work. Sanitation workers play a critical role in regulating and preventing illnesses caused by rubbish, filthy streets, and clogged drains in the areas where they spend the majority of their time. They work and live-in stressful environments as a result of low pay, a lack of respect and recognition, a heavy workload, and other factors.[94]

Sanitation employees have a life expectancy of 40 years - 45 years, which is much lower than the national average of 70 years. Furthermore, the labour they conduct exposes them to high rates of long-term sickness and mortality. The number of people who die as a result of their jobs is high: Over the last five years, 375-475 persons working in manual

[91] Anbasrasu, D. J., & Narmadha, S, (2015), "Attitudinal Hindrances of Empowering Women Sanitary Workers", pp.1-5.
[92] Kumar, V. (2017), "Working conditions, health and well-being among the scavenger community", *Work and Health in India*, pp.213.
[93] Ahire, K.D. & Bhalerao., 2017, "Assessment of Occupational health hazards faced by sanitary workers in Kolhapur City, International Journal of Scientific Research, 6(8):246-247.
[94]T.Juliet Nisee, Lourdes Poobala Rayen, (2017) "A Study on the problems of sanitary workers and its Association with their variables", *EPRA International Journal of Economic Business Review*, Vol.5

scavenging have perished on the job, mostly as a result of asphyxiation while cleaning sewers and septic tanks. This is based solely on government records. According to anecdotal evidence, the actual fatality rate may be substantially higher. To deal with their precarious positions, many workers turn to drugs and alcohol. We found that two-thirds of sanitation personnel had not received COVID-19 safety instructions or training. COVID-19 made things worse for sanitation workers. Despite the fact that they were frontline employees who played a key role in ensuring proper trash management, there was no attention paid to their health, safety, or dignity. For COVID-19, over 90% of sanitation workers in Assam, Madhya Pradesh, Delhi, and Mumbai lacked the necessary cleaning equipment, health insurance, healthcare facilities, and check-ups.[95]

3.6 Study of Public Health

The concept of a "social gradient to health" is predominantly a Western one, and little research has been done to examine if people's health is influenced by their social status in developing countries. In India, for example, health outcomes fluctuate systematically by gender and economic class, according to studies of specific geographical locations (Sen, Iyer, and George, 2007). Further, despite controlling for a range of characteristics, Local government spending on public goods, particularly health-related items, is lower in ethnically more homogenous areas than in places with higher caste dispersion. (Sengupta and Sarkar, 2007).[96]

The term 'public health' is becoming increasingly popular with policymakers, academics, bureaucrats, social activists, and researchers. Hence it has become essential to understand the term public health. Indian Academy of Public Health definition of “Public Health”: “Public health is the science and art of promoting health, preventing disease and prolonging life, to maintain a healthy and economically productive life to realize the birthright of each individual, by organizing a social machinery of community development to maintain a healthy environment, empower the people for maintaining a healthy lifestyle and behaviour, prevent epidemics, control communicable and non-communicable diseases, addressing the social, economic and cultural determinants influencing health and disease,

[95] Nirat Bhatnagar, Anahitaa Bakshi, Keshav Kanoria, “Here’s What needs to change for Sanitation Workers in India”, *The Wire,* 22 August 2021.
[96] Sen, G., Iyer, A., & George, A. (2007), “Systematic hierarchies and systemic failures: Gender and health inequities in Koppal District”, *Economic and Political Weekly,* pp. 682-690.

and also organizing a personal care and public health service for caring the sick and disabled especially during man-made or natural calamities and epidemics."[97]

The Government of India planned numerous options for health care delivery in independent India, keeping in mind the constitutional requirements. The suggestions of the "Health Survey and Development Committee" (Bhore Committee) in 1946 lay the foundation for the structure of health services in India through primary health care.[98]

Concerns about the performance of India's healthcare delivery system have grown during the last two decades. According to National Rural Health Mission (2005) figures, only 10% of Indians have health insurance, and around 40% of Indians either borrow money or sell their assets to pay for their medical expenditures.[99]

Poor and inequitable conditions lead to disease. It is still difficult for many people to obtain affordable and equitable health care of high quality. In "Right to Life," the disparity in health care is considered a compromise. Health care inclusion depends on defining "essential health care," which should be available to all citizens. We have suggested two strategies: optimizing public resource use and increasing public investment in health care. A key component to lowering healthcare costs is building capacity through education, particularly paramedical professionals. Improvements in the healthcare delivery system are another key factor to consider. Increased involvement of "family physicians" in the healthcare delivery system will increase preventive treatment and lower tertiary-care costs. These observations support the importance and significance of primary health care in providing comprehensive health care. Getting your health services from a primary health care provider has many advantages, including better access to services and better quality, better prevention, early diagnosis and treatment of health problems, and lower morbidity and mortality as a result of improved health.[100]

The Indian government has established an inclusive growth policy that incorporates all marginalised elements of society, such as children, women, and other vulnerable groups. In various areas, including health, education, energy, resources, technology, finance, and infrastructure, the 12th plan aims for inclusive growth. The Indian healthcare system, which

[97] Ahmed F. U, (2011), "Defining public Health", *Indian Journal of Public Health*, [Online: web] Accessed 5 Sept, 2021 URL: https://www.ijph.in/text.asp?2011/55/4/241/92397.
[98]Roy S. (1985), "Primary health care in India", *Health Popul Perspect*, 8:135-67.
[99]Government of India. (2005), *The 10th Five Year Plan, Mission Document - National Rural Health Mission (2005-2012)*, Ministry of Health and Family Welfare, New Delhi.
[100]Yeravdekar, R. (2013), "Strengthening of Primary Health Care: Key to Deliver Inclusive Health Care", *Indian Journal of Public Health*, 57(2).

is divided into three tiers: primary, secondary, and tertiary, is distinguished by the presence of numerous distinct health-care delivery systems, including government, non-profit, charitable organisations, corporate hospitals, and smaller private clinics.[101]

3.7 Summary

We understand the importance of health, but defining it remains a challenge. Health is viewed differently by different academics. Some believe that an individual is healthy if he or she is free of any illness or disease, while others believe that an individual is healthy if he or she can carry out normal everyday activities. Others say a person is healthy if she or he is well-adjusted in social circumstances and can perform efficiently even in difficult situations. Health services are focused on treating diseases, illness prevention, and health promotion. The goal of health services is to improve the population's health and make health services available to people from all walks of life.

[101]Birla, B., Taneja, U., (2010), "Public private partnerships for healthcare delivery in India", *Internet J World Health Societal Politics*,7:1. [Online: Web] Accessed 20 June. 2013 URL:http://archive.ispub.com:80/journal/theinternet-journal-of-world-health-and-societal-politics/volume

Chapter-4

Socio-Economic, Family and Working Conditions of Women Sanitation Workers

Introduction

This chapter is proposed to summarise the socio-economic, family, and working conditions of women sanitation workers employed in sanitation occupations. The data collected with the help of the interview schedule were classified and tabulated. The parameters which were considered for the present study were: age, education status, caste, religion, marital status, number of children, monthly income, alcoholism among husbands, consumption of tobacco/gutka, housing pattern, availability of toilets, number of years in the present occupation, prior employment before the present job, working hour per day, reasons for choosing the job, nature of work performed by sanitation workers.

4.1 Age Distribution of Women Sanitation Workers

When it comes to job, age is an important factor. Women's age has a greater impact because their roles alter as they become older. As people get older, their domestic obligations and family status change. The age-wise classification of women sanitation workers is presented in Table 4.1 and figure 4.1. It is observed that 52 percent of women sanitary workers belong to the age group of 40-49 years. 25 percent of sample respondents are between the age of 29 years -39 years. Among the permanent sanitation workers, 65 percent belong to the age group of 40 years - 49 years; and the 5 percent belong to the above 59 years.

Table 4.1: Age Distribution of Women Sanitation Workers

Sl. No.	Age	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=100)
1.	18 years - 28 years	9	11	20 (10%)
2.	29 years - 39 years	14	36	50 (25%)
3.	40 years - 49 years	65	39	104 (52%)
4.	50 years - 59 years	10	5	15 (7.5%)
5.	Above 59 years	2	9	11 (5.5%)

Source: Extracted from the field by the Researcher

4.2 Educational status

Education plays an important role in the development of the family and society as a whole. Education promotes knowledge development, skill development, and character building. The educational qualification was classified as illiterate, primary, middle, higher secondary, and graduate. The education qualification of the respondent is given in Table 4.2 and figure 4.2 below. The educational level of sanitation workers shows their poor socio-economic condition. In the present study, among the respondents, 43 percent could not even read and write their mother tongue. Approximately, 31 percent of permanent and temporary sanitation workers completed their primary education. About 19 percent of permanent and temporary sanitation workers completed middle school. Education is certainly not a priority for these sanitation workers. The educational level of women sanitation workers is very low. Only about 2 percent of the sampled women sanitation workers could achieve the graduation level of education. The low education level of temporary workers is the replication of the lack of economic resources or inclination towards education.

Table 4.2: Educational Status

Sl. No.	Educational qualification	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Illiterate	45	41	86 (43%)
2.	Primary education	30	32	62 (31%)
3.	Middle school	16	22	38 (19%)
4.	Higher secondary	5	4	9 (4.5%)
5.	Graduate	4	1	5 (2.2%)

Source: Extracted from the field by the Researcher

4.3 Caste

In the field of sanitation work, caste plays a critical role. The present study assesses whether the occupation of women sanitary workers is caste-based. The concentration of certain castes in certain occupations could be taken as an indicator for this. The following Table 4.3 and figure 4.3 explain the distribution of respondents according to their caste. Caste-based *mohallas* were visible in places like Delhi. Among the SC respondents prioritized that routine work is given on the basis of their traditional occupation. The data indicates that the majority of 75 percent of respondents belong to the SC community; 10 percent of them belong to the Scheduled tribe community, and 6 percent belong to the Other backward class community.

Table 4.3: Caste

Sl. No.	Caste	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	SC	73	78	151 (75%)
2.	ST	11	9	20 (10%)
3.	OBC	7	6	13 (6.5%)
4.	Others	9	7	16 (8%)

Source: Extracted from the field by the Researcher

4.4 Religion

In India, religion plays an important role in people's lives. Religion was observed to play a role in personal and familial decisions such as marriage. Respect for the other religion among the respondents was evident in the responses. Women sanitation workers of different religions such as Hindu and Christian have been working in sanitation work. The following table 4.4 and figure 4.4 show the religion-wise distribution of permanent and temporary sanitation workers in the study area. Out of the total sample, 92 percent of respondents belong to the Hindu religion, and 5 percent belong to the Christian religion.

Table 4.4: Religion

Sl. No.	Religion	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Hindu	91	94	185 (92%)
2.	Christian	6	4	10 (5%)
4.	Other religion	3	2	5 (3%)

Source: Extracted from the field by the Researcher

4.5 Marital status

Women who are both permanent and temporary sanitation employees come in an array of marital statuses, including married, single, divorced, and widowed. These women work in the sanitation sector. The following Table 4.5 and figure 4.5 show the marital status of permanent and temporary sanitary workers in study areas. The data shows that out of total respondents, 80 percent of respondents are married, and unmarried respondents constitute 4.5 percent. The widow and divorced comprise 14 percent and 1.5 percent, respectively.

Table 4.5: Marital Status

Sl. No.	Marital status	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Married	78	82	160 (80%)
2.	Unmarried	1	8	9 (4.5%)
3.	Divorced	2	1	2 (1.5%)
4.	Widow	19	9	28 (14%)

Source: Extracted from the field by the Researcher

4.6 Number of Children

The number of children of the sanitation workers is included as one of the profile variables in the study. The following Table 4.6 and figure 4.6 show the number of children of women sanitary workers. Data reveals that 48 percent of the sample respondent has three children and 24 percent of the respondent have four children in the family; 5 percent of total

respondents have one child. Out of the total respondents, 10 percent of women sanitation workers have two children, and only 7 percent do not have any children.

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Table 4.6: Number of Children

Sl. No.	Number of children	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	One	4	6	10 (5%)
1.	Two	11	10	21 (10%)
2.	Three	51	46	97 (48%)
3.	Four	22	26	48 (24%)
4.	Five and above	8	3	11 (6%)
5.	None	4	9	13 (7%)

Source: Extracted from the field by the Researcher

4.7 Monthly Income

Income status is a basic indicator of the economic soundness of a household. Economic opportunity is not as equal as to men for women, which results in women generally working in low-wage and low-skilled jobs which pay them less than their male counterparts in the same occupation. Table 4.7 and figure 4.7 show the monthly income of permanent and temporary women workers. It is observed that 39 percent of them have a monthly income above Rs. 27000 and 37 percent of them are having Rs. 9000-15000. Approximately 11 percent of both permanent and temporary workers earn between Rs. 21000-27000. Seventy-nine percent of permanent workers revealed that their annual income is more than Rs. 27000. Thus, the observation reveals that the economic conditions of permanent workers are good. On the other hand, temporary workers are found to be comparatively poor and backward, having a non-substantial economy.

As there is a minimum wage policy by the government of India, all the permanent workers were receiving more than Rs. 20,000 per month. However, this was not the case with temporary workers. It was found that all the surveyed temporary workers were receiving

less than Rs. 20,000 per month; the majority were on the pay scale of Rs. 9000-15000 per month.

Table 4.7: Monthly income

Sl. No.	Monthly Income	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Rs. 3001-9000	-	14	14 (7%)
2.	Rs. 9001-15000	-	74	74 (37%)
3.	Rs.15001-21000	-	12	12 (6%)
4.	Rs.21001-27000	21	-	21 (11%)
5.	Above 27000	79	-	79 (39%)

Source: Extracted from the field by the Researcher

4.8 Alcoholism among husbands

Table 4.8 and figure 4.8 summarizes the habit of alcohol consumption among husbands of women sanitation workers. According to a survey, 89 percent of the total respondent's husbands have the habit of drinking alcohol; 11 percent of the total respondents were not in the habit of drinking alcohol. The absence of contact with others, their ignorance, and illiteracy are some of the factors contributing to the addiction to alcoholism. They are generally working in the same occupation. Due to their unclean occupation, they are often addicted to alcohol. Most husbands of sanitation workers clean sewers, and they regularly consume alcohol before going to the sewer. Alcoholism not only affects the health but also disturbs the harmony of family members. Alcoholism leads to domestic violence, and they also force their wives to give them money to drink. When women resist, they are often involved in domestic violence.

Table 4.8: Alcoholism among husbands

SI. No.	Alcoholism among husbands	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Yes	91	87	178 (89%)
2.	No	9	13	22 (11%)

Source: Extracted from the field by the Researcher

4.9 Respondent's opinion about the consumption of tobacco/gutka

Tobacco use is a key contributor to the four major Non-communicable Diseases (NDSs): cardiovascular disease, cancer, chronic lung disease, and diabetes. Tobacco smoking enhances the severity of respiratory disorders and is a risk factor for numerous respiratory infections. So, the use of tobacco is included as one of the profile variables. Table 4.9 and figure 4.9 summarizes the respondent's opinions about the consumption of tobacco. Among the total respondents, 72 percent do not consume tobacco/gutka; 28 percent out of total sanitation workers accepted that they consume tobacco/gutka.

Table 4.9: Respondent's opinion about the consumption of tobacco/gutka

Sl. No.	Consumption of tobacco/Gutka	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Yes	25	31	56 (28%)
2.	No	75	69	144 (72%)

Source: Extracted from the field by the Researcher

4.10 Respondent's housing pattern

The housing pattern represents the economic condition of the person who owns the house. In order to know the respondent's socio-economic conditions, the housing pattern was included as one of the variables. Location of the house is an important criterion for inevitable discrimination. Table 4.10 and figure 4.10 shows the information regarding the status of the respondent in the study area. In regard to housing access to sanitation workers,

the majority of sanitation workers live in their traditional *bustees*. During the survey, it was observed that the majority of the temporary workers, 81 percent, were living in poor housing conditions compared to permanent workers' housing. The data of the permanent workers show that a substantial proportion of them are living in the pucca houses. Only 24 percent of them are living in *Kutcha* houses. In contrast, a majority of them have kept their homes tidy and clean.

Table 4.10: Housing Pattern

Sl. No.	Housing Pattern	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Pucca	76	19	95 (47%)
2.	Kutcha	24	81	105 (53%)

Source: Extracted from the field by the Researcher

4.11 Availability of toilet

Classification of sanitation workers based on toilet facilities in their house. The data indicate that the majority of households own toilets, and few of them use public toilets. About 1 percent of respondents said that they defecate in the open.

A very small proportion of the respondent's households is seen to have access to mobile toilets. The percentage of those using *Sulabh Shauchalaya* is also low among the sanitation workers. Table 4.11 and figure 4.11 show 92 percent of respondents have facilities of toilets or bathrooms attached to their household. Only 5 percent of respondents reported using public toilets. The respondents gave the reason for using public restrooms and *Sulabh Shauchalaya* because they do not have toilets at home.

Table 4.11: Availability of toilets

Sl. No.	Availability of toilets	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Own toilet	97	87	184 (92%)
2.	Public toilet	3	6	9 (5%)
3.	Open space	-	2	2 (1%)
4.	Sulabh shauchalaya	-	4	4 (2%)
5.	Mobile toilets	-	1	1 (0.2%)

Source: Extracted from the field by the Researcher

4.12 Number of years in the present occupation

The year of service plays a crucial role in any occupation. Table 4.12 and figure 4.12 show the years of service of the permanent and temporary sanitation workers in the present occupation. During the survey, it was found that more than 65% of the workers had an experience of ten or more than ten years of experience in the job of sanitation of these experienced workers, permanent workers consolidated the majority. Among the temporary workers, 50 percent have experience of more than ten years.

Table 4.12: Number of years in the present occupation

Sl. No.	Numbers of years in present occupation	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Less than one year	5	6	11 (5%)
2.	Two years	8	11	19 (9%)
3.	Five years	18	19	37 (19%)
4.	Ten years	24	50	74 (37%)

5.	Above ten years	45	14	59 (30)

Source: Extracted from the field by the Researcher

4.13 Prior employment before the present job

Table 4.13 and figure 4.13 reveals that 60 percent of the respondents were unemployed prior to their present job. When a *safai karamchari*/daily wage worker dies, his or her spouse is considered for employment as a daily waged *safai karamchari* to fill the vacancy left by the departed employee. On humanitarian grounds, the son or daughter of a dead employee may be considered for such employment in deserving instances. The MCD prioritized permanent employment to a suitable family member of a deceased worker since sanitation workers could not easily get other jobs and because of bereaved families.

Table 4.13: Prior employment before present Job

Sl. No.	Prior employment before the present job	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Unemployed	56	63	119 (60%)
2.	Self-employed	3	9	12 (6%)
3.	Casual worker	4	6	10 (5%)
4.	Others	37	22	59 (29%)

Source: Extracted from the field by the Researcher

4.14 Number of working hours per day

The following Table 4.14 and figure 4.14 show the number of hours worked in a day by the sanitation workers. Data reveals that 83 percent of sanitation workers worked under 8 hours duty per municipal labour law, whereas 31 percent of workers, including mostly temporary workers, have to engage 9 to 10 hours by work-loads. Mostly, Sulabh caretakers have to continue their routine jobs for more than 8 hours.

Table 4.14: Number of working hours per day

Sl. No.	Number of working hours per day	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	7-8 hours	96	69	165 (83%)
2.	9-10 hours	4	31	35 (17%)
3.	More than 10 hours	-	-	-

Source: Extracted from the field by the Researcher

4.15 Reasons for choosing this job

There are different reasons for choosing this job as a sanitation worker. The main reasons were government jobs, lack of education, traditional jobs, husbands not giving money, poverty, etc. The following Table 4.15 and figure 4.15 summarize the various reasons for choosing this job as a sanitation worker among permanent workers and temporary workers. It is observed that the majority of women sanitation workers are in traditional jobs. Twenty-four percent responded that the reason for choosing a job as a sanitation worker was a government job. Economic stability was a concern for women workers. Other reasons for choosing this job included a lack of work experience, ease of work, independent income, and family maintenance.

Table 4.15: Reasons for choosing a job

Sl. No.	Reasons for choosing a job	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Husband does not give money	-	4	4 (2%)
2.	Lack of education	14	16	30 (15%)
3.	Government job	47	-	47 (24%)
4.	Traditional job	23	38	61 (30%)
5.	Poverty	8	6	14 (7%)

6.	To Increase family income	8	5	13 (6%)
7.	Others	-	31	31(16%)

Source: Extracted from the field by the Researcher

4.16 Nature of the work performed by women sanitary workers

There are different kinds of work performed by the permanent and temporary sanitation workers such as toilet cleaning, wet and dry waste loading on wheelbarrows, sweeping on roads, bus-stand, spray pesticide, and disposal of dead animals. The following Table 4.16 and figure 4.16 summarize the nature of work performed by permanent women sanitary workers. It shows that 66.5 percent of respondents are street cleaners, 13.5 percent of respondents carry the wet or dry loading on wheel Barrow. It is observed that cleaning manholes and disposal of dead animals are performed by 8 percent of respondents; the remaining respondents are toilet cleaners.

Table 4.16: Nature of work performed by women sanitary workers

Sl. No.	Nature of work performed by women sanitary workers	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Toilet cleaning	9	15	24 (12%)
2.	Wet or dry waste loading on a wheelbarrow	11	16	27 (13.5%)
3.	Cleaning manholes	-	-	-
4.	Streetcleaner	74	59	133 (66.5%)
5.	Disposal of dead animals	6	10	16 (8%)

Source: Extracted from the field by the Researcher

4.17 Summary

This chapter covered the socio-economic, family, and working conditions of permanent and temporary workers such as age, educational status, caste, religion, marital status, number of children, monthly income, alcoholism among husbands, consumption of tobacco/gutka, housing pattern, availability of toilets, prior employment before the present job, number of hours worked per day, reasons for choosing present job and nature of work.

An analysis of background characteristics of respondents revealed the majority of the respondents (52%) belong to the age group of 40 years-49 years, and most of the respondents (80%) are married. Percentage of education status indicates that 43% out of total respondents are illiterate. Majority of the respondents (92%) belong to the Hindu religion. Nearly (37%) respondents have an income below Rs. 15000. The majority (89%) of their husbands were in the habit of drinking. It was found that those who are temporary workers (81%) are living in Kutcha houses; hence the majority of permanent workers are living in the tiled house. Moreover, the majority of respondents agreed that the reasons for choosing a job are a traditional job.

Chapter-5

Health Conditions of Women Sanitation workers

Introduction

In the previous chapter, we saw the socio-economic, family, and working conditions of women sanitation workers. A comparison was drawn between the income status, age distribution, caste, category distribution, a habit of drinking alcohol, and consuming gutka of both temporary and permanent workers. It was established that the socio-economic conditions of permanent workers are well of a kind. On the other hand, temporary workers were found to be comparatively poor and have a non-substantial economy. This chapter further explores the health differentials among permanent workers and temporary workers. Variables like the work-related problem, common health problems, rare health problems, frequency of illness, preferences of getting medical treatment, monthly expenditure of medical treatments, the factor responsible for poor health status, and free health check-ups by the government have been measured among sanitation workers.

It's commonly assumed that those people who are engaged in sweeping/ cleaning jobs are involved in occupations that are hazardous to health. They have a lower sense of well-being and hence complain more of ill-health and ailments. Women sanitation workers carry on an indispensable role in the continuous process of city cleaning. Since their work deals with waste and dirt, these workers are experienced with several health problems. During their work, they regularly encounter unwrapped sanitary napkins and dead animals, which can lead them to skin diseases.

Concepts of Health

The ability to adapt and consciousness in the context of social, physical, and psychological issues is characterised as health. According to the WHO, the definition of health is, “Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”.[102]

When researching the health of a population, it is equally critical to know about different people's perceptions of health and illness. These can range from the lack of symptoms to

[102] WHO

physical fitness or strength, psychological well-being, and having enough energy to accomplish household chores.[103]

Occupational health has varied names and definitions in different nations. Occupational health, under a very narrow definition, refers to diseases or injuries induced by working conditions, such as occupational diseases and accidents. Occupational health, on the other hand, covers preventive medicine and medical care for workers and their dependents, according to a larger definition. In practice, occupational health would encompass all medical tasks. This implies that occupational health would cover all medical procedures. The Joint ILO/WHO Committee of Experts spent much of its inaugural meeting debating the nomenclature and concept of occupational health, according to the Joint International labour organization and World health organization Committee of Experts. The word "occupational health," according to the Commission, should be used. Occupational health should aim at “the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupation; the prevention amongst workers of disease caused by their employment from risks of health; the placing and maintenance of the worker in an occupational environment adapted to his physiological equipment, and to summarize: the adaption of work to man, and of each man to his job”. [104]

Types of Health Problem

Skin Diseases

Skin disease not only affects the skin, but it can also have a huge impact on a person's overall personality and self-confidence. It can kill the person in its most severe form. It is an issue that needs to be taken care of with special treatment. In sanitation work, workers develop skin problems because of their working environment. Skin disease can lead to Skin Cancer, Skin Boils, and Skin Lesions. It also includes itchy skin, which can make you want to scratch.[105]

Musculoskeletal disorders

According to numerous researches, women have higher musculoskeletal morbidity than men. This has been discovered in investigations of both the general population and various

[103] Blaxter M (1995) What is health? In: Davey B, Gray A & Seale C (Eds.) Health and Disease: A Reader. Buckingham: Open University Press.
[104] Forssman, Sven, The World Health Organization and Occupational Health, British Journal of Industrial Medicine, Vol. 8, No. 4 (Oct., 1951), pp. 206-208.
[105] Ramitha, K. L., Ankitha, T., Alankrutha, R. V., & Anitha, C. T. (2021), A cross-sectional study on occupational health and safety of municipal solid waste workers in Telangana, India. *Indian Journal of Occupational and Environmental Medicine*, *25*(3): 169.

occupational groups. The causes for these disparities between men and women aren't always evident. Biological disparities in body size, muscle strength, and aerobic capacity, in combination with high physical demands, are significant reasons for the observed inequalities, according to the standard model of explanation. Individual psychological features, as well as the psychosocial environment, have been discussed in the recent decade, either as causal, confounding, or impact modifying factors and as possible gender-specific factors. Thus, the relative impact of different risk factors in women and men is still unknown, but there is agreement that musculoskeletal problems are caused by a variety of factors.[106]

There has been limited study into the link between physical demands in the workplace, such as hard lifting, piecework, or unsuited or demanding work positions, and women's mental health.[107]

Sanitation workers are exposed to varying degrees of risk which endangers their health. Many of these exposures are dangerous and incurable. Sanitation workers are involved in direct contact with pollution and infectious agents. They are at the highest risk of getting infected from the work they do if they do not take precautions. As part of the work process of collecting, transporting, and disposing of waste, sanitation workers are also at risk of acquiring infectious diseases and physical injuries, such as cuts, pricks, and bruises. A lot of these accidents can be avoided by taking proper precautions well in advance to make the workplace a safe place to work. This chapter explains the hazards faced by the person working in the wasteland. It investigates the impact of these vulnerabilities on the physical and emotional health of sanitation employees who are women. Through a comprehensive survey, the chapter summarizes the health problems of the municipal sanitary workers employed by Delhi Municipal Corporation, showing the occurrence and spreading of various health problems like skin ailments, chronic pain, musculoskeletal problems, allergy, high blood pressure, low blood pressure, gastrointestinal problems, etc. Delhi is one of the metropolitan cities where the large scale of waste involves collecting and disposing of waste managed by the sanitation workers. These polluted forms of waste management are done mostly by women sanitation workers. There are few studies about

[106] Crimmins, Eileen M et al. “Differences between Men and Women in Mortality and the Health Dimensions of the Morbidity Process.” *Clinical chemistry* vol. 65, 1 (2019):135-145.
[107] Ibid

sanitation workers and their access to healthcare in the context of their occupational hazards.

This study shows the work-related problems of women's sanitary workers. They are exposed to sun, dirt, pollution, and various bacterial infections. The working place of sanitary workers is so full of stench that many workers come to work in a state of intoxication to tolerate the unbearable stench. Rajnarayan R. Tiwari (2008) A sanitation worker can be affected through various means in his workplace. All hazards in a garbage area or wasteland can be classified under the following categories. 1) Physical hazards 2) Psychological hazards 3) Chemical hazards 4) Biomedical hazards. The sanitary service's goal is to protect people's health by creating a safe and clean environment. It aids in the prevention of disease transmission via faecal contamination. With their effective services, sanitation personnel protect society against diseases like diarrhoea, ascariasis, typhoid, influenza, polio, parasitic infections, and respiratory disease.[108]

In order to improve human health, sanitation workers provide sanitation services. Cleaning latrines or pits, cleaning public restrooms, sanitising public toilets, cleaning municipal, government, and private office toilets, operating waste collection trucks, managing faecal sludge, desludging septic tanks, cleaning sewer, cleaning manholes, cleaning sewage treatment plants, and handling wastewater and sludge at sewage treatment plants are all jobs that sanitation workers do.

Sanitation employees are the primary people in charge of maintaining the country's cleanliness. At the same time, they are confronted with a variety of issues, including i) health and safety concerns, such as cuts, injuries, musculoskeletal problems, respiratory problems, gastrointestinal problems, and infectious diseases such as gastroenteritis, diarrhoea, cryptosporidiosis, giardiasis, hepatitis A, hepatitis B, leptospirosis, salmonellosis, typhoid fever, ii) inadequate law enforcement, lack of safety guidelines, protection under the law, and workers' rights, which is directly impacted by the allocation of equipment and materials used for the job, as well as by employers; iii) economic instability and societal problems; due to stigma such as caste discrimination.[109] Due to a lack of understanding, female sanitation employees are not focussing on their health and nutritional status. There is a need to improve the understanding of female workers in terms of health problem prevention. Prior to work, they must have proper training and be

[108] Gomthi P. Kamala K, "Threatening Health Impacts and challenging life of Sanitary Workers", *Evolution Med Dent Sci*, October,2020.
[109] ibid

equipped with appropriate equipment. Workplaces must provide suitable facilities for female employees. Regular medical examinations, vaccinations, and follow-up are critical for the protection of sanitation employees.

5.1 Work-related health problems among women sanitation workers

To access health-related problems among permanent and temporary sanitation workers, work-related problems need to be studied. The following Table and figure 5.1 show the result of the work-related problems among permanent and temporary workers. In most cases, the temporary workers get no rest and risk allowance. Medical expenses on work-related injuries are paid according to the position of employment. Following the survey, it was observed that the unhygienic workplace (65%) is the primary reason for work-related health problems among women sanitation workers, followed by the rude behaviour of the supervisor (11%) and work during all climate conditions (10%).

Table 5.1: Work-related problems among women sanitation workers

Sl. No.	Work-related health problems	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Unhygienic workplace	72	58	130 (65%)
2.	Long working hours	4	12	16 (8%)
3.	Rude behaviour of the supervisor	13	9	22 (11%)
4.	Unequal salary for the work done	2	10	12 (6%)
5.	Work during all climate conditions	9	11	20 (10%)

Source: Extracted from the field by the Researcher

5.2 Diseases of the women sanitation workers suffer

One of the problems of sanitary workers is health. Due to their nature of work, smoking of *beedies*, and excessive drinking, they are often under attack by many diseases. They usually suffer from menstrual problems, respiratory, hypertension, and musculoskeletal disorders. There are also a few cases of cancer, and one person has died of this disease. It is important to note that the sanitary workers play a key role in rendering this noble service. Therefore,

there is a crying need to take necessary action in improving the health conditions of women sanitation workers. The diseases that women sanitation workers suffer from are shown in Table 5.2 and Figure 5.2.

Table 5.2: Diseases of the Women sanitation workers suffer from

S.I. No.	Disease	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Musculoskeletal disorders	28	26	54 (27%)
2.	Skin diseases	23	20	43 (21%)
3.	Menstrual disorder	12	17	29 (14%)
4.	Respiratory problems	16	7	23 (12%)
5.	Gastrointestinal problem	2	16	18 (9%)
6.	Hypertension	5	3	8 (4%)
7.	Lung disease	3	2	5 (3%)
8.	Tuberculosis	1	2	2 (1%)
9.	Others	10	8	18 (9%)

Source: Extracted from the field by the Researcher

The problem of musculoskeletal disorders (27%) and skin diseases (21%), and menstrual disorder (14%) has been found common among women sanitation workers. Such miseries have been observed to be high among the permanent workers. Most of the problems faced by sanitation workers at their workplace. The prevalence of gastrointestinal problems and tuberculosis was very low among the respondents. 12 percent of the respondents have symptoms of respiratory problems; only 3 percent of respondents identified lung disease. Respondents who are suffering from respiratory problems experience sore throats frequently. Those respondents who suffered from respiratory problems also had sinusitis, breathlessness, and blocked nostrils. Prevalence of sick leave due to the problem of musculoskeletal injuries was reportedly higher among sanitation workers. Other diseases include cancer, diabetes, heart problems, and cholera.

5.3 Frequency of illness

About 28 percent of the women sanitation workers get ill after one week. Data reveals that 51 percent of total respondents fall ill once a month. 28 percent of respondents get sick once a week; 5 percent of the respondents fall ill once a fortnight. 6 percent of respondents get sick rarely. A rare illness can be described as once in two to three years. The frequency of illness among women sanitation workers are shown in Table 5.3 and figure 5.3.

Table 5.3: Frequency of illness

Sl. No.	Frequency of illness	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Once a week	36	20	56 (28%)
2.	Once in a fortnight	4	6	10 (5%)
3.	Once in a month	42	61	103 (51.5)
4.	Rarely	18	13	31 (6.5)

Source: Extracted from the field by the Researcher

5.4 Preference of the respondents for getting medical treatment

This study analyses the medical-seeking behaviour of the respondent. The study assesses home care treatment, approaching health care centres, using government hospitals, and going to private hospitals. Table 5.4 and figure 5.4 show the preferences of respondents for getting medical treatment. Most of the sanitary workers prefer to go to their local bone-setter *Pahalwan,* for strain injuries. The data depicted that 35 percent of respondents seek treatment from the private hospital. Among the temporary workers, 49 percent of respondents seek health care from government hospitals. On the other hand, permanent workers in high-income groups have enough money to seek better treatment from the private hospitals as they are not satisfied with the quality offered by the government hospitals. In case of emergency, temporary workers prefer private medical care which has quick facilities and flexible timings. The respondents were asked for whom they approached first when they fell ill; about 16 percent of the total respondents said that they approached private clinics. Only a small proportion (3.5%) of respondents favoured home

care remedies. Sanitation workers prefer government hospitals for severe diseases like cancer, heart problems, kidney problems that require surgery.

Table 5.4: Preference of the getting medical treatment

Sl. No.	Preference of medical treatment	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Private hospital	51	20	71 (35%)
2.	Government hospital	17	49	66 (33%)
3.	Private clinic	20	12	32 (16%)
4.	Mohalla clinic/ Dispensaries	9	15	24 (12%)
5.	Home remedies	3	4	7 (3.5%)

Source: Extracted from the field by the Researcher

To the questions, whether they go for periodical medical check-up, whether such facilities are available for them, and finally whether they consult a private doctor or a government doctor, we found that a majority of them do not go for a periodical check-up, and they consult a doctor when they fall sick. Although there is a provision of medical reimbursement, the permanent workers pointed out that due to cumbersome procedures, they do not claim such a facility. Further, the workers preferred to consult a private doctor. It is evident from the foregoing observation that the municipal corporation has not paid much attention to improving the health conditions of workers.

5.5 Average monthly expenditure on medical treatment

The amount spent on medical treatment depends upon the income of the respondent. The budget of the medical treatment shows the economic status of the respondent. So, the monthly budget of medical treatment is included as one of the variables in this study. The research explores the health expenditure pattern of the sample respondent and also to know how much importance they gave to their health status and awareness about their health status maintained. Forty one percent of respondents spend between Rs. 3000 to Rs. 11000; 31 percent spend between Rs. 1001-Rs 3000 on monthly expenditure. 11 percent of

respondents spend up to Rs. 1001 because they were not afflicted with any sickness. Following the survey, it was observed that 4 percent of respondents spend above Rs. 13000 thousand because they have diabetes and cancer patients. Figure 5.5 and Table 5.5 show the average monthly expenditure by respondent.

Table 5.5: Average monthly expenditure of the respondent

Sl. No.	Monthly expenditure	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Up to Rs. 1001	12	10	22 (11%)
2.	Rs. 1001-3000	25	37	62 (31%)
3.	Rs. 3001-11000	39	44	83 (41.5%)
4.	Rs. 11001-13000	18	7	25 (12.5)
5.	Above Rs. 13000	6	2	8 (4%)

Source: Extracted from the field by the Researcher

5.6 Availability of personal protective equipment

Personal protective equipment like masks, gloves, boots, raincoats, sanitizers are essential for the collection of garbage. These are essential to protect the health of sanitation workers. To avoid accidents or to work with bare hands, the equipment for sweeping and digging drains must be adequate. It is essential to take precautionary measures for doing the work among the permanent and temporary sanitation workers; what kind of facilities have been provided for doing the work among permanent and temporary sanitary workers. Protection equipment includes gloves, masks, uniforms, hair caps, etc. From the data, we observed that the protective equipment provided for doing the work among the permanent and temporary sanitary workers. During the survey, it was observed that out of 200 respondent's 17 percent agreed that their protective equipment was available to them, while 83 percent were not given the protective equipment. The availability of personal protection equipment among women sanitation employees are shown in table 5.6 and figure 5.6.

Table 5.6: Availability of personal protective equipment

Sl. No.	Availability of personal protective equipment	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Yes	22	12	34 (17%)
2.	No	78	88	166 (83%)

Source: Extracted from the field by the Researcher

5.7 Proper changing room

Women sanitation workers require privacy as often as necessary during their menstrual period, as well as the use of soap and water to wash their bodies as needed. There is a need for proper changing rooms for women sanitation workers. A proper changing room can accommodate the hygiene practice and are an essential safeguard for women's health and dignity. During the survey, it was observed that just 13% of respondents have access to changing facilities at their workplace, while 86 percent have no access to proper changing rooms.

Table 5.7: Proper changing room

Sl. No.	Proper changing room	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Yes	19	8	27 (13.5%)
2.	No	81	92	173 (86.5)

Source: Extracted from the field by the Researcher

5.8 Free medical health check-ups by the Government

The respondents were asked whether they received health check-ups by the government. In most cases, they have not heard about any health camps available in their area. Only 12% of respondents indicated they received government health check-ups, while 88% stated they were unaware of any health camps in their area. Government should provide sanitation workers with healthcare facilities and friendly medical treatment for health check-ups. Among sanitation workers, irregular health and safety checks were most likely to disappoint them. Disappointment occurred because of unfriendly staff and their poor

responses, physical distance, and prejudice exhibited by the staff at the health check-up. Table 5.8 and figure 5.8 show the free medical health check-ups provided by the government.

Table 5.8: Free medical health check-up

Sl. No.	Free medical health check-up	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Yes	10	14	24 (12%)
2.	No	90	86	176 (88%)

Source: Extracted from the field by the Researcher

5.9 Decision making for medical treatment

The respondents were asked regarding decisions for medical treatment. Such decisions are mainly taken by females (56%) among the total respondents. Female permanent employees are more active in decision-making for medical treatment. Table 5.9 and figure 5.9 show the medical treatment decisions taken by the respondent and their families.

Table 5.9: Decision making for medical treatment

SI. No.	Decision making for medical treatment	Permanent \workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Males	9	40	49 (24.5%)
2.	Females	71	42	113 (56.5%)
3.	Joint	20	18	38 (19%)

Source: Extracted from the field by the Researcher

5.10 Health beneficiary card

The respondents were asked about the health beneficiary card. It is found that 43 percent of total respondents have a health beneficiary card. This 43 percent is the majority guided by the proportion of permanent workers who have been given the health beneficiary cards by their employers. But 91 percent of temporary workers have not been provided any health card. The temporary workers have not been provided any medical treatment or medical check-up by their employers. Table 5.10 and figure 5.10 show the availability of health beneficiary cards.

Table 5.10: Health beneficiary card

Sl. No.	Health Beneficiary Card	Permanent Workers (N=100)	Temporary Workers (N=100)	Total (N=200)
1.	Yes	78	9	87 (43.5%)
2.	No	22	91	113 (56.5%)

Source: Extracted from the field by the Researcher

5.11 Availability of leave facility in the job

The respondents were asked about leave at work. It is found that permanent workers (79%) have maternity or sick leave facilities in their work. Table 5.11 and figure 5.11 presents the distribution of permanent and temporary workers according to the availability of the leave facility in their job. It shows that 93 percent of temporary workers have no leave facility in the Job; 21 percent of permanent workers said that they have no availability of leave in the present Job. On all national and state holidays, they are only required to work half-days. In reality, if they take time off, their pay is reduced. During field research, it was shown that workers visit private clinics for minor diseases such as sprains and wounds and then return to work. They can only take unpaid absences if they have major health difficulties.

Table 5.11: Availability of leave facility in the job

SI. No.	Availability of leave facility in the job	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=200)
1.	Yes	79	7	86 (43%)
2.	No	21	93	114 (57%)

Source: Extracted from the field by the Researcher

5.12 Level of job satisfaction

The distribution of respondents is shown in Table 5.12 and Figure 5.12. According to their opinion on the job satisfaction level. It shows that 19 percent of respondents are satisfied with their job activities in the course of their employment. The remaining 81 percent of respondents accepted that they were not satisfied with their existing job activities in the course of their employment. One of the key reasons for their dissatisfaction with the employment was the irregular salary.

Table 5.12: Level of Job Satisfaction

SI. No.	Level of Job Satisfaction	Permanent workers (N=100)	Temporary workers (N=100)	Total (N=100)
1.	Yes	26	12	38 (19%)
2.	No	74	88	162 (81%)

Source: Extracted from the field by the Researcher

5.13 Summary

Differences in health problems did not show much difference among the permanent and temporary workers. Both were found to have the same health problems. Chances for the permanent jobs followed by the temporary workers. The finding suggests the major difference in the availability of health services for the permanent and temporary women workers. During the survey, most of the women were outspoken and articulate.

The availability of medical facilities showed a dismal picture. Infrastructural needs in health and education were sounded by the majority of the respondents. Sanitation workers were found to be seeking medical facilities from private institutions. It was noted that health care activities to prevent common diseases in their area while HIV/AIDS and family planning activities were regular. Less than 2 percent of houses use public toilets because they reside in slums. Sanitation workers do not reach different welfare policies. The intervention of the government for solving problems was suggested more by the temporary workers. At the same time, the respondent suggested more on account of public actions and people's initiatives to solve the problems. MCD must provide healthcare facilities and friendly medical treatment for its employed sanitary workers. MCD hospitals are not popular with sanitation workers. The quality of the treatment is usually questioned.

Chapter-6

Health Policies and Services for Women Sanitation workers

Introduction

In accordance with the WHO's Gender Policy (2002), gender mainstreaming in health aims to improve health for both men and women by providing research, policies, and programs that recognize gender differences and provide equity for women and men. By incorporating gender considerations into all interventions, coverage, effectiveness, and efficiency are expected to increase. In addition, it promotes equity and equal opportunity for women and men throughout their lives, and at a minimum, ensures. It is imperative that interventions do not perpetuate inequitable relationships and roles between men and women.[110]

India is one of the contributors to the Sustainable Development Goals. Nevertheless, manual scavenging is prevalent in the country, which interferes with the accomplishment of SDGs such as clean drinking water and sanitation (Goal 6), decent employment and economic growth (Goal 8), decreased inequality (Goal 10), and peace, justice, and strong institutions (Goal 10). Danish Institute for Human Rights points out that 156 of the 169 Sustainable Development Goal targets are based on human rights and labour standards10, emphasizing the importance of tracking the development of marginalized people and rights holders such as those involved in manual scavenging and sanitation. As a result of the prevalence of caste prejudice in various parts of the world, the UN Special Rapporteur on Minorities recommended the inclusion of caste-specific indicators in order to combat caste-based discrimination.[111]

Several obstacles stand in the way of achieving "Health for all" (Goal 3 of the Sustainable Development Goals), the most prominent of which is physical access to high-quality healthcare and a lack of qualified staff at existing facilities. The National Sample Surveys were conducted in 2004 and 2014 to analyze changes in health-seeking behaviour and the efficacy of recent national health policies (such as the National Rural Health Mission and the National Urban Health Mission).[112] By comparing descriptive analyses, health care

[110] T.K.S. Ravindran, A. Kelkar Khambete, (2008), "*Global Public Health*", An International Journal for Research, Policy and Practice, pp-121-142.

[111] https://www.wateraidindia.in/sites/g/files/jkxoof336/files/status-of-manual-scavengers-in-india-sustainable-development-goals-perspective.pdf

[112] S. Sutton and H. Nkoloma , (2003) "Encouraging Change, Sustainable Steps in Water Supply", Sanitation and Hygiene , (TALC ,2003)

facilities and associated expenditures were compared. The effectiveness of national health policies varies across regions. A strong correlation was found between literacy and health status. As part of NRHM, new health facilities were built at the grassroots level, resulting in a higher knowledge of healthcare issues and a desire to use healthcare services. As a result, it was also remarkable that the proportion of rural residents receiving public health care had increased.[113]

Social exclusion impacts health directly, as it manifests itself in the health system, and indirectly, by impacting economic and other social inequalities. These inequalities contribute to the process of social exclusion, creating a vicious circle. Multiple socio-economic disadvantages affect members of particular communities in India that limit their access to health care. Several factors lead to discrimination against marginalized groups in India, i.e., caste, gender, stigma, and mobility restrictions that hinder healthcare access. Each group often faces multiple barriers because of their various identities. Women Dalits in India experience double discrimination due to their status as women and Dalits. Furthermore, some groups in Indian society experience discrimination and feel marginalized. Such groups require special consideration to avoid exploitation.[114]

Sanitation workers' rights have been infringed, and they are sometimes discriminated against, with medical staff refusing to treat them because they cannot afford such rising health care costs. Their health has not been given the attention it deserves. Finally, women sanitation workers in India have a lower health status than the rest of the population. In India, cultural norms and behaviours are entrenched in a patriarchal social system in which women are subjugated to strict gender roles and suffer from greater health issues than males. Women's health is negatively impacted by the prevalence of poverty and gender prejudices in the health system and society at large, as well as their restricted authority and lack of influence in decision-making.[115]

Occupational hazards among sanitation employees are a common source of physical and psychological pain or suffering for women, as well as a violation of their right to health. States must enact laws and policies that safeguard these women from all dangers while also

[113] Parul Gangwar & U.V. Kiran (2012), "Postural Discomfort among Sanitation Workers "International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064, Vol. 3, Issue 10, pp. 802-805.
[114] Adya (2013), "Occupational stress of women workers in unorganized sector" International Journal of Scientific & Engineering Research, Vol. 4, Issue 3, pp. 22-34, ISSN 2229-5518.
[115] Jayakrishnan. T, Jeeja MC, Bhaskar. R. (2013), Occupational health problems of municipal solid waste management workers in India. International Journal of Environmental Health Eng., Vol. 2, Issue 3, pp. 1-6.

providing physical and mental health care. Including family planning and adequate medical care during pregnancy, labour, and the postnatal period.

The right to health of women also includes sexual and reproductive health. The reproductive years are the most prolific years of a woman's life. Due to the lack of maternity benefits, many women workers are forced to abandon their jobs in order to have a child. Because India lacks an adequate primary health care system, most mothers are forced to raise their children at home without access to medical treatment. In India, the majority of women and their families are unable to afford hospitalisation. Even if they choose to be admitted to the hospital, additional medical costs and the loss of jobs make them economically vulnerable. Due to the lack of maternity benefits, a woman is unable to meet her nutritional needs before and after her pregnancy, as well as acquire enough rest, and is forced to return to work soon after delivering. In terms of hospital and medical expenses, social security for unorganised employees must ensure that all women, whether employed or not, have access to maternity rights, including paid leave. These maternity benefits include at least 12 weeks of paid maternity leave.[116]

Because there are no child care provisions, the strain of work on women is greatly exacerbated, impacting their health and ability to work. Women sanitation employees frequently have no other option except to rely on their own health and capacity to work. They are the most susceptible because their health and nutrition are the family's lowest priorities. Sanitation employees are vulnerable in a variety of ways. They encounter a variety of issues, including poverty, gender, and social status. All of this has an impact on their health and access to healthcare. These factors have a direct impact on their ability to obtain accurate health information and access to medical services. Respiratory diseases and menstrual problems are some of the leading health problems among women sanitary workers.[117]

The Sexual Harassment of Women at Work Act of 2013 prohibits sexual harassment of women at work. The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013, is an Indian law aimed at protecting women from workplace sexual harassment. On September 3, 2012, the Lok Sabha (India's lower house of parliament) passed it. On February 26, 2013, the Rajya Sabha (India's upper house of

[116] Melbostadt E, Eduard W, Skogstad A, Sandven P, Lassen J, Sostrand P, Heldal K (1994), Exposure to bacterial aerosols and work-related symptoms in sewage workers. Am. J. Ind. Med., Vol. 25, pp. 59–63.
[117] Abhinandan Saikia & Nokleny Angla (2015), "In a Fulcrum: Revisiting the Conditions of Manual Scavengers in India" Journal of Social Research & Policy, Vol. 6, Issue 1, ISSN: 2067-2640.

parliament) passed it. On April 23, 2013, the President signed the bill into law. The Act became effective on December 9, 2013.

Gender equality is guaranteed under the constitution, which includes protection from sexual harassment and the right to work in dignity. With an increasing number of women entering the workforce, both in the organised and unorganised sectors, it is critical to ensure an enabling working environment through legislation. Women in educational and medical institutions, as well as women who may enter a workplace in various capacities, such as employees and labourer, are exposed to sexual harassment and require protection. No attention is given to providing and covering the women sanitation workers under health programs when they need it the most.[118]

India, with about a quarter more than a billion population, has the world's second-largest population followed by China, having about 17.5 % of the world population. India has seen the urban population rise from 17.35 % in 1951 to 31.2 % in 2011, which simply means that every third person is now a city dweller. As per certain estimates, we can expect this to become every second person, in a matter of about next ten years who will live in cities. Since independence, the nation has seen a multidimensional socio-economic transformation. Even after spending a considerable number of resources on various development projects, the health sector, which includes public health infrastructure, and facilities, along with allied services, etc, still happens to be a neglected developmental priority in India, whether it be urban or rural. There can be seen every kind of garbage piled up, littered all along the streets in cities. Sanitation workers are the ones who carry all these garbage piles and wastes to keep the city clean and healthy.[119]

Thus, ironically, healthcare services for most women sanitation workers remain a significant challenge. Although healthcare is considered a significant service existing in the realm of municipal authorities under the state governments in India, the current reality in service delivery is much to be desired. Access to better healthcare facilities, which includes both governments and private ones, has always remained a significant challenge for many,

[118] Anbarasu D, Narmadha, S. (2015), "Job Promotion and Attitudinal Barrier of Women Sanitary Workers". International Journal of in Multidisciplinary and Academic Research (SSIJMAR), Vol. 4, pp. 1-14.
[119] Rangamani S, Kannamedi Bheemappa Obalesha and Rakhal Gaitonde (2015), "Health issues of sanitation workers in a town in Karnataka: Findings from a lay health-monitoring study". The National Medical Journal of India, Vol. 28(2), pp. 70-73

including the women sanitation workers. Improved healthcare services can bring a significant effect on everyone's health and thereby on quality of life and the economy.[120]

The term 'Sanitation work' encompasses the collection, storage, transportation, disposal and sometimes includes treating all kinds of garbage, both liquid, and solid waste. Most people have a misconception that sanitation work is primarily associated with toilets and sewerages, but in reality, it is about keeping the surroundings clean and ensuring safe and better public health while maintaining the dignity of the urban city. Any nation's policies, plans, schemes, and programs determine the pace and scope of its development. Sanitation work significantly influences health and developmental indicators, which influence the environment and affect people's lives. The sanitation work is discussed and is incorrectly considered a caste-based occupation. Critical understanding of the functioning of the policies and programs regarding the needs and demands of the workers and families associated with this work is required. There have been many changes in policy approaches over the past half-century from the health policies perspective.[121]

The problem of health among sanitation workers has two aspects. The first one, which is the most neglected in all discussion, is the lack of access to health facilities-more than half of women sanitation workers are not aware of the government schemes and policies.[122] This leads to the rise of communicable diseases, safety problems, and much more. However, the second aspect of the health problem most discussed is the plight of sanitation workers and their appalling working conditions. The involvement of sanitation workers in the planning, implementation, and monitoring of policies and programs related to the health of women sanitation workers is entirely absent. The neglect of their voices suppresses them further, rendering them invisible workers and citizens.[123]

6.1 Health Infrastructure in Delhi

Improvement in health infrastructure has been one of the major contributions prolonged by any state for its citizens. Healthcare in urban areas has been developed as a three-tier structure based on predetermined population norms. There are three stages to a healthcare

[120] Deborach and Judith (1980), "Women and Work in Society". Delhi: Discovery Publishing.
[121] S. Smilee Johncy, G Dhanyakumar, Kanyakumari, T Vivian Samuel (2014), "Chronic Exposure to Dust and Lung Function Impairment: A Study on Female vi Sweepers in India" National Journal of Physiology, Pharmacy & Pharmacology, Vol. 4. Issue 1, pp. 15-19.
[122] Rohila (1984), "A study on sanitary workers and their physical environment", Manonmaniam University, Tiruchandur.
[123] Viel JF, Clement MC, Hägi M, Grandjean S, Challier B, Danzon A (2008), "Dioxin emissions from a municipal solid waste incinerator and risk of invasive breast cancer: a population-based case-control study with GIS-derived exposure". Environ Health, Vol. 7(4), pp. 243-248.

system: primary, secondary, and tertiary. There are sub centres and primary health centres at the primary level (PHCs). Community health centres (CHCs) and smaller sub-district hospitals are available at the secondary level. Finally, medical colleges and district/general hospitals provide the highest degree of government-provided public health care.[124]

Table 6.1: Health Infrastructure Facilities in Delhi during the period 2010-2017

Sl. No.	Health Institutions	2010	2011	2012	2013	2014	2015	2016	2017
1.	Hospitals	86	91	94	95	95	94	83	88
2.	Primary Health Centers	8	8	5	5	2	5	7	7
3.	Dispensaries	1101	1239	1318	1451	1389	1507	1204	1298
4.	Maternity home &sub-Centers	260	259	267	267	267	265	193	230
5.	Polyclinics	15	16	19	19	19	42	48	54
6.	Nursing homes	676	679	750	855	973	1057	1057	1160
7.	Special clinics	22	21	27	27	27	27	14	124
8.	Medical colleges	11	12	14	16	16	17	17	17

Source: Directorate of Health Services, GNCTD

Table 6.2 Agency-Wise Number of Medical Institution in 2017-2018

Sl. No.	Agency	Institutions
1.	Delhi Government	38
2.	Municipal Corporation of Delhi	51
3.	New Delhi Municipal Council	2
4.	Government of India (DGHS, CGHS, Railway, ESI, Army Hospitals, AIIMS, LRS Inst.)	21
5.	Other autonomous bodies {Patel Chest Institute, IT Hospital, AIIMS, National institute of tuberculosis and respiratory (NIRTD)}	4
6.	Private nursing homes/Hospitals/voluntary organizations	1163
	Total	1279

Source: Government of India (2018), Economic Survey, Ministry of Finance, New Delhi

Every occupation has its illness that affects its members regardless of class, gender, or caste. Among sanitation workers, many factors affect their health, including social, economic, and political factors. Health study is crucial since health services (health centers,

[124] Chokshi, M. Patil, B. Khanna, R. Neogi, SB. Sharma J. (2016), "Health System in India" *Journal of Perinatology*, 36:9-12.

immunization campaigns, or any health program) will be challenging to implement without understanding existing policies. The delivery of health care services in Delhi may be broadly classified as follows: (1) Government (2) Private, (3) Charitable or Voluntary organizations, and others. The following agencies provide health care in Delhi:

- Central Government Health Schemes
- Delhi Administration
- Municipal Corporation of Delhi (MCD)
- New Delhi Municipal Corporation (NDMC)
- Delhi Cantonment
- Railways
- Statutory Bodies
- Voluntary/Charitable

The state government Delhi, India, had launched Mohalla or Community Clinics "to provide quality primary healthcare services accessible within the communities at their doorstep" and "to reduce the overcrowding of people seeking treatment for common illnesses at healthcare facilities." Mohalla clinics are a development of Mobile Medical Units (MMUs) and Mobile Vans. It is common to find MMUs in almost all parts of India and worldwide. Mobile van clinics provide health services in underserved areas so that doctors, nurses, medicines, and supplies can reach patients using modified or adapted Tempos or other types of vehicles.

This chapter presents existing services and policies for women sanitation workers in Delhi. An attempt has been made to bring a picture of health care facilities by the government.

6.2 Law, Schemes and Policies

The right to health of sanitation workers begins with information or awareness of laws and policies meant to protect them. There are various national-level policies, schemes, and laws to protect Manual Scavengers from social and occupational atrocities. Our government has taken a number of steps to provide better healthcare facilities for sanitation workers.[125]

[125] Srivastava, Sanjay Prakash, Sanitation, Public Health and Health Care Laws in India: Analyzing Theoretical Foundations (May 21, 2011).

6.3 Bhore Committee Report

The Indian National Congress established a National Planning Commission in 1938 to enhance the country's preventative, promotive, and curative health care during the pre-independence era. The British Empire's rulers at the time recognised the importance of public health and established the “Health Survey and Development Committee” in 1943, chaired by Sir Joseph Bhore. The committee was entrusted with conducting an assessment of the country's health conditions and health organisations, as well as making recommendations for future growth. In 1946, the committee submitted its report. The committee's main suggestions included the integration of preventative, promotive, and curative health care, as well as the construction of Primary Health Centers in rural regions. In 1946, the Bhore Committee Report stated that "healthcare" should be a top priority for the government, and that the principle of "equity" in healthcare should be recognised. This viewpoint was supported by the Jan Swasthya Abhiyan and the Independent Commission on Health and Development Report. The importance of "human capital quality" to economic development is clearly stated in the report. As a result, at this point in time, when India is one of the world's economic powerhouses, there is a need to solve the present healthcare system mismatch. India took a step in this direction by signing the Millennium Development Goals and launching a number of programmes to provide universal healthcare to the Indian people.[126]

6.4 Janani Suraksha Yojana (JSY)

Janani Suraksha Yojana is a scheme proposed by the Government of India. This scheme was launched by the Prime Minister of India on 12th April 2005. The scheme promotes measures pertaining to safe motherhood, and it falls under the National Rural Health Mission (NRHM). The objective of the scheme is to address maternal and neonatal mortality by promoting the practice of delivery of babies in institutions for women from economically depressed families (NHM, Government of India).[127] Cash assistance is integrated with delivery and post-delivery care in this programme. The program's success will be determined by the growth in institutional delivery among impoverished families. Among the key roles in this scheme are those of the Accredited Social Health Activists

[126][Online Web] Accessed 5 Sept 2021 URL:https://en.wikipedia.org/wiki/Bhore_Committee
[127] Centre for Health Information, Government of India (2015), Janani Suraksha Yojana, [Online: Web] accessed on 24 July 2020 URL: Janani Suraksha Yojana (JSY) | National Health Portal Of India (nhp.gov.in)

Community, whose role can be that of a motivating individual in the field to encourage women to have institutional childbirth.[128]

Role of ASHA (i) Identify pregnant women who are beneficiaries of the scheme and assist them to obtain antenatal care (ANC), and (ii) Help the pregnant woman obtain all necessary information regarding pregnancy and birth certifications wherever necessary, (iii) Ensure that the women receive at least three ANC check-ups, tetanus (TT) injections, and iron folic acid (IFA) tablets, (iv) Identify the closest government health centre or accredited private health centre for referral and delivery, (v) Counselling for institutional deliveries, (vi) To accompany the beneficiary women to the predetermined health facility, and to stay with them until the women is discharged, (vii) Coordinate the immunization of the new born infant up to the age of fourteen weeks, (viii) Inform the mother or nurse midwife of the birth or death of the baby, (ix) To monitor the mother's health following delivery and to provide assistance in seeking care, wherever necessary, (x) To counsel the mother for breastfeeding of the new born within 1-3 months of delivery and to encourage family planning.[129]

Disbursement of cash to the mother should be done through the Auxiliary Nurse Midwife/ Accredited Social Health Activist ANM/ASHA/ Link worker channel and the money available under JSY should be paid to the beneficiary only and not to any other person or relative. Mother and ASHA (where applicable) will receive their money at the health centre on arrival and registration. It is generally the ANM/ASHA's responsibility to handle the disbursement process. In the meantime, AWW or any linked worker may disburse funds with the assistance of the ANM until ASHA joins.[130] Poor pregnant women are targeted under this scheme along with the states that have low institutional delivery rates, namely the states of Uttar Pradesh, Uttaranchal, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Assam, Rajasthan, Orissa, and Jammu, and Kashmir. These states were classified as Low Performing States (LPS), whereas the rest were labelled as High Performing States (HPS) (HPS).

[128] Philippe Cullet and Lovleen Bhullar, Sanitation Law and Policy in India: An Introduction to Basic Instruments, (Oxford University Press,2015).
[129] Bhatia, K (2018), "Implementation of Janani Suraksha Yojana Mapping evidence-based policy recommendations from implementation narratives of ASHAs", [Oline: Web] Accessed 5 June 2020, URL: 4_Janani Suraksha Yojana_Kavita Bhatia.pdf (esocialsciences.org)
[130] Government of India (2013), *Annual Report of National Rural Health Mission in India 2013*, Ministry of Health and Family, New Delhi.

6.5 National Rural Health Mission (NRHM)

In 2005, the National Rural Health Mission (NRHM) was launched in order to ensure the health of women, children, and the poor in rural areas. In it, essential determinants of health such as nutrition, hygiene, sanitation, and safe drinking water are addressed in a synergistic manner. Its major focus is reducing infant and maternal mortality, as well as reducing deaths from other causes, as well as to prevent communicable and non-communicable diseases. Through the programme, the infant mortality rate decreased from 58 in 2005 to 50 in 2009, and the institutional delivery rate increased from 10.84 million in 2005-06 to 16.21 million in 2009-10.[131]

Initially, the NRHM was entrusted with addressing the health needs of 18 states classified as having poor public health indicators. The Empowered Action Group (EAG) States, as well as North Eastern States, Jammu and Kashmir, and Himachal Pradesh, have received special attention as part of the NRHM. It aims to build a fully functional, community-owned, decentralised health-care delivery system with cross-sectoral convergence at all levels, ensuring simultaneous action on a variety of health factors like water, health, education, nutrition, and social equality. As a result of institutional integration, all health facilities were expected to focus on outcomes measured according to Indian Public Health Standards. According to the 12th Plan document of the Planning Commission, NRHM's flagship program will be strengthened under the National Health Mission.[132]

NRHM has provided healthcare contractors to underserved areas and has been involved in training to expand the skill sets of doctors at strategically located hospitals. Additionally, auxiliary workers such as ANMs as well as nursing staff are provided with capacity-building training. The NHM also supports the collocation of AYUSH services in health facilities such as Primary Health Centres, Community Health Centres, and District Hospitals.[133]

6.6 Accredited Social Health Activists Community

ASHA establishes a link between the community and the health system by working as volunteers. Women and children, especially in rural areas, find it very difficult to obtain

[131] Husain, Z. (2011), "Health of the National Rural Health Mission*", Economic & Political Weekly EPW* January 22, 2011 vol xlvi no 4

[132] Tamulee, P. & Singh, S. (2012), Janani Surasksha Yojana: Impact on Socio-Economic Conditions among Beneficiary Families, *International Journal of Scientific and Research Publications*, Volume 2(10)

[133] Government of India Planning Commission (2011), Report on "Constitution of working group on Progress and Performance of National Rural Health Mission (NRHM) and suggestions for the Twelfth Five Year Plan (2012-2017)" Yojana Bhavan: New Delhi.

health services. It is also the first stop for any health-related requests from the deprived sections of the population. ASHA has been expanding into more states and is proving particularly successful in re-engaging people with the public health systems, especially by increasing their use of patient services, diagnostic facilities, and institutional deliveries.[134]

The objectives of the NRHM were to give access to improved health care at the household level through a new network of CHW (community health workers) called ASHA in every village of the country through the ASHA Scheme. The Objectives of the National Rural Health Mission. Among the main objectives are reducing child and maternal mortality, ensuring universal access to nutrition, sanitation, and hygiene, and supporting universal health care service coverage with a particular focus on services. Improving women's and children's health and universal immunization Prevention and control of communicable and non-communicable diseases, including locally endemic diseases.[135] Comprehensive primary health care integrated into one system. Stabilization of the population, gender equality, and demographic balance. Reinvigorate local health traditions as well as mainstream Ayurveda. Encouraging people to have healthy lifestyles.[136]

6.7 National Urban Health Mission (NUHM)

The Indian government has proposed the 'National Urban Health Mission' (NUHM) as a five-year mission for 430 cities, including metros, with the goal of improving the health of the urban poor and other disadvantaged groups by making health care more accessible. This will benefit 22 crore people, with a concentration on the five-crore people who live in slums. It strives to address health challenges by allowing fair access to accessible health facilities, as well as streamlining and strengthening the existing health-care delivery system's capabilities. It proposes using non-governmental organisations to fill in the gaps.[137]

[134] S. Agarwal & Sian L. Curtis & et al. (2019), "The impact of India's accredited social health activist (ASHA) program on the utilization of maternity services: a nationally representative longitudinal modelling study", Agarwal et al. Human Resources for Health (2019) 17:68

[135]F Fathima F & Mohan Raju at al. (2015), "Assessment of 'Accredited Social Health Activists'—A National Community Health Volunteer Scheme in Karnataka State, India, *J Health Popul Nutr.* 33(1): 137–145.

[136] State Institute of Health and Family Welfare (2008), "Janani Suraksha Yojana: Concurrent Evaluation-II", Jaipur.

[137] John, S J Chander, & Devadasan (2008), "National Urban Health Mission: An analysis of strategies and mechanisms for improving services for urban poor", M. S. Ramaiah University of Applied Sciences: Bengaluru, India.

Its goal is to create a model based on the many facilities accessible. It attempts to connect the mission to current initiatives like the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Swarna Jayanti Shahari Rozgar Yojana (SJSRY), and the Integrated Child Development Scheme (ICDS), all of which share similar goals. The most important strategies a) Strengthening existing primary public health systems b) Public-private partnerships c) Community-based risk pooling/insurance mechanism with IT support d) Monthly health and nutrition day e) Capacity building of key stakeholders f) Special provisions for the most vulnerable g) Quality-assurance monitoring h) Community participation in planning and management I Target group identification through the distribution of Family/Individual Health Plans Cards of Suraksha.[138]

A three-tiered health-care system. Community Outreach Services at the Local Level Urban Social Health Activist Mahila Arogya Samitees (MAS) (USHA) Second, at the level of the urban health centre Strengthening a public health facility that already exists Private providers who have been enlisted Secondary/tertiary education Empaneled providers, whether public or private with the help of USHA and MAS, it hopes to deliver community-based care. Promote a position of one USHA for 1000-2500 people, covering 200 to 500 families, in urban poor settlements, and secure community engagement through community-based institutions, such as one MAS for 20-100 houses and Rogi Kalyan Samitees. These measures will ensure that the community is involved in the planning and management of the project.[139]

In terms of providing health care services, management, availability of private providers, financing, and other factors, the urban health situation in cities is characterised by significant differences in the organisation of the health delivery system. In cities such as Mumbai, Kolkata, Chennai, Bengaluru, Ahmedabad, and others, it is predominantly the urban local bodies (ULBs) that manage primary health care services, as mandated by the 74thAmendment. In many cities, such as Delhi, the municipal government, such as the Municipal Corporation of Delhi (MCD), the New Delhi Municipal Corporation (NDMC), the Delhi Cantonment Board, and other parastatal organisations, as well as the state government, collaborate to offer primary health care. Despite the presence of ULBs in places such as Patna, Ranchi, Agra, Bhopal, Meerut, Indore, and Guwahati, the provision

[138] Ministry Of Health and Family Welfare Government of India, (2013), Report on National Urban Health Mission, May 2013; Delhi.
[139] Ibid.

of primary health care remains the responsibility of the state government through its district structures.

6.8 Ayushman Bharat Yojana of Pradhan Mantri Jan Arogya Yojana (PMJAY)

Under the visionary leadership of the Honourable Prime Minister, the Ayushman Bharat Pradhan Mantri Yojna was launched in September 2018. A significant percentage of sanitation workers come from poor families, making this a powerful opportunity for restoring dignity to the workers. The PMJAY will provide coverage up to Rs. 5 lakh per family each year (on a family floater basis) for practically all secondary care and most tertiary care hospitalisation, with no limit on family size. This will benefit sanitation employees by lowering their out-of-pocket health-care costs and giving them more freedom in allocating household resources to other vital family requirements. This programme contains e-cards for hospital empanelment and health-benefits coverage.[140] This plan lays out a path to achieving Universal Health Coverage (UHC). Globally, universal coverage is increasingly seen as the ultimate goal of health policy.[141]

6.9 Schemes for Manual Scavenging

The 1993 Employment of Manual scavengers and Construction of Dry Latrines was prohibited. The Act Prohibited employment of manual scavengers in cleaning dry latrines and new dry latrines. The Safai Karamchari Andolan (SKA) in 2003 filed a PIL in the supreme court to monitor the legislative progress of states ratifying the 1993 Act.[142] In 2007, the central government introduced the Scheme for Rehabilitation of manual scavengers (SRMS) in an attempt to provide training with alternative skills and loans to Manual Scavengers.[143]

The Ministry of Housing and Affairs launched the 'Safaimitra Suraksha Challenge' in 243 cities across the country to end manual scavenging by 2021. Under the campaign, sewers and septic tanks in 243 cities will be mechanized and a helpline created to register complaints if manual scavenging is reported. Cities that reach the end result will receive prize money. Its mission is to prevent any loss of life due to the issue of 'hazardous

[140] India National Health Authority (2020), Report on "Health benefit packages & Empanelment criteria for AB-NHPM", [Online: Web], accessed on 5 March 2019 URL: HBP.pdf
[141] National Health Authority of India, (2019), Report On "Ayushman Bharat Pradhan Mantri Jan Arogya Yojana 2019-2020", National Health Authority of India: India.
[142] P.Sathasivam, (2014), "Safai Karamchari Andolan And Ors vs Union Of India And Ors on 27 March, 2014" [Online: Web], Accessed on 25 August 2020 URL: Safai Karamchari Andolan And Ors vs Union Of India And Ors on 27 March, 2014 (indiankanoon.org)
[143] Maity, S. (2020), "Safai Karamchari Andolan: What you need to know", [Online: Web] Accessed on 23 June 2020, URL: Safai Karamchari Andolan: What you need to know (sociologygroup.com)

cleaning' of sewers and septic tanks. The measures are part of the Swachh Bharat Abhiyan (Clean India Initiative).[144]

Manual scavenging is the practice of manual cleaning of human excreta from service/dry latrines. The scavengers crawl into the dry latrines and collect the human excreta with their bare hands, carrying it as head-load in a container to dispose of it off. Service/dry latine is a type of toilet which is waterless and from which human excrement is collected from buckets, cesspools, and privies manually.

Key provision under Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013

- It prohibits the employment of manual scavengers, manual cleaning of sewers and septic tanks without protective equipment, and the construction of insanitary latrines. Offences are cognizable and non-bailable.
- Provides definition of manual scavenging: All forms of manual removal of human excreta like an open drain, pit latrines, septic tanks, manholes and removal of excreta on the railway tracks.
- For Rehabilitation: Initial one-timecash assistance to manual scavengers, skill training to manual scavengers and one of the adult family members for livelihood,
- Responsibility to identify manual scavengers lies with local authority (municipality or panchayat cantonment board or railway authority).
- A person who violates section 8 of this Act faces a sentence of up to two years in prison or a fine of up to Rs. 12 lakhs or both. Any future infractions can result in a sentence of up to 5 years in prison and a fine of up to a lakh rupee, or both.
- Additionally, the Act contains provisions for rehabilitating individuals who have been identified as manual scavengers.
    a) An initial one-time cash assistance program
    b) Scholarships for the children of manual scavengers
    c) Land distribution for construction of a ready-made house and financial assistance for the construction of the house
    d) In addition, there would be payment of a monthly stipend of at least Rs 3000 for training in a livelihood skill

[144] Chaudhary, A. (2017), "Swachh Bharat Mission- Need, Objective and Impact", nternational Journal for Research in Management and Pharmacy, Vol. 6, Issue 2.

e) At least one adult member of the family will receive a subsidy, along with concessional loans.

So far, India has taken steps to eliminate manual scavenging

1. Sanitation is a State Subject.
2. Article 17 of the Indian Constitution forbids the practice of untouchability, and the Protection of Civil Rights Act of 1955 prevents anyone from being forced to engage in manual scavenging.
3. National Commision for Safai Karamchari (NCSK) Act, 1993 enacted to form NCSK to look into matters concerning the Safai Karamchari' welfare.
4. The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act of 1993 made the employment of manual scavengers and the construction of dry toilets illegal.
5. The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act of 2013, which supersedes the 1993 Act, prohibits any manual fecal matter cleaning of insanitary latrines, open drains, or pits.
6. The National Safai Karamcharis Finance and Development Corporation was created in 1997 with the mission of overseeing programme execution and providing financial assistance.[145]

Sanitation Schemes

Sanitation includes disposal of excreta from humans, wastewater, solid waste, domestic waste, and personal hygiene. Many enteric diseases, including cholera, diarrhoea, dysentery, typhoid, infectious hepatitis, hookworm, etc., are caused by human excreta. Nearly 80% of the diseases in developing countries are caused by human excreta, which is why over 50 kinds of infections can be transmitted directly or indirectly from one person to another.[146]

- Integrated Development of Small and Medium Towns Scheme (1969),
- Total Sanitation Campaign, 1999, renamed Nirmal Bharat Abhiyan
- Swachh Bharat Abhiyan, 2014

[145] Baruah, A (2014), "The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013: A Review", Space and Culture, India, Vol.1, Issue.3, pp.9-17.
[146] ENVIS centre on Hygiene, Sanitation, Sewage Treatment System and Technology, "Sulabh Technology", 3 December 2016, Online web: URL: http://www.sulabhenvis.nic.in/Database/sanita_sulabhtechnology_2133.aspx

Rehabilitation Schemes

- National Schemes of liberation of Scavengers and their Dependents, 1992.
- Scheme for Self-Employment for Rehabilitation of Manual Scavengers, revised in 2013.

Civil Society/Other Initiatives

- Safai Karamchari Andolan (SKA), 1995, currently spearheaded by Wilson Bezwada,
- In 2002, Rashtriya Gramin Abhiyan- a coalition of 30 community-based organizations from 13 states started a campaign to encourage manual scavengers to voluntarily leave the practice.

6.10 Swachh Bharat Mission

The Swachh Bharat Mission, also known as the Clean India Mission, is a national-level initiative that was recently established by the Indian government as a major step toward environmental conservation. On October 2, 2014, India's Prime Minister launched SBM. The campaign's goals include eliminating open defecation, converting insanitary toilets to pour flush toilets, eliminating manual scavenging, and most importantly, changing people's attitudes toward healthy sanitation practises and ensuring public participation in attaining these goals. India continues to be the country with the greatest number of people who openly defy the government. The following are the goals of the Swachh Bharat Mission: 1) Open defecation must be eliminated, as well as manual scavenging. 2) Municipal Solid Waste Management that is Modern and Scientific 3) To influence people's minds about the importance of good sanitation. 4) Raise public understanding of cleanliness and its relationship to public health. 5) Capacity Enhancement for Urban Local Bodies (ULBs). 6) To create an environment that encourages private sector engagement in Capex (capital expenditure) and Opex (operational expenditure) (operation and maintenance).

Swachh Bharat Mission (Urban) [SBM (U)]

As a homage to Mahatma Gandhi on his 150th birth anniversary, the Government of India established the Swachh Bharat Mission (Urban), with the goal of ensuring hygiene, waste management, and sanitation across the country. The Ministry of Housing and Urban Affairs implemented Swachh Bharat Mission-Urban. The mission's goal is to attain 'Swachh Bharat' by the year 2019.

Mission goals include:

- Elimination of open defecation
- Eradication of manual scavenging
- Improving the solid waste management System in urban areas to modern and scientific ones.
- To effect behavioural change through education campaigns regarding sanitation and hygiene practices
- Capacity Augmentation of ULBs to create an enabling environment for private sector participation.[147]

6.11 Valmiki Ambedkar Awas Yojana (VAMBAY)

The Valmiki Ambedkar Awas Yojana is the Central Government scheme that has the primary objective to facilitate the construction and upgradation of the dwelling units for the slum dwellers and provide health and enabling urban environment through community toilets under Nirmal Bharat Abhiyan, a component of the scheme. This is the first scheme of its kind meant exclusive for slum dwellers with a Government of India subsidy of 50 percent. The balance 50 percent is to be arranged by the State Government with ceiling costs prescribed both for dwelling units / community toilets. During the financial year 2002-03, control subsidy to the extent of`218.35 crores for the construction of 110388 dwelling units and 21488 toilet seats was released. A total of 2.08 lakh dwelling units covering 20 states and Union Territories have been sanctioned under VAMBAY.[148]

As part of its Bhim Yatra campaign, *Safai Karamchari Andolan* called on the country and the government to stop manual scavenging. Over 125 days, the campaign covered 500 districts in 30 states. As part of the Bim Yatra, Ambedkar spread his ideas of social justice, liberty, equality, and fraternity while promoting the slogan "Educate, Organize, and Agitate". The *Safai Karamchari Andolan* continues to increase in terms of geographical reach as well as initiatives. Rehabilitation of freed manual scavengers, education of their children, construction of the Sewerage Worker's Platform, and women's SHGs across India are all underway. SKA also seeks to raise awareness of every human being's equality and

[147] Avani K. (2019), "Swachh Bharat Mission - Urban (SBM-U) GoI, 2019-2020", Centre for Policy Research, Budget Briefs Vol. 11, Issue.7.
[148] Government of India (2001), Valmiki Ambedkar Awas Yojna, Ministry of Housing and Urban Affairs, New Delhi. [Online: web] Accessed 17 Nov URL: https://pib.gov.in/newsite/erelcontent.aspx?relid=1041

dignity. By enlisting the help of community leaders and facing issues such as caste and patriarchy head-on.[149]

6.12 Pre-Matric Scholarship to Children of Sanitation Workers

From 1977 to 1978, the Indian government created a pre-matric scholarship programme for children of people involved in "unclean occupations." The Government of India provides 100 percent central assistance to State Governments/UT Administrations for the whole expenditure under the Scheme, over and above their respective committed commitment to implement the Scheme under this Scheme.

6.12 Mahila Samridhi Yojana (MSY)

The Mahila Samridhi Yojana Scheme aims to empower impoverished women from minority groups by teaching them job-related skills and giving microcredit to help them start their income-generating businesses. The strategy for organising and strengthening disadvantaged women should include the following elements. 1) Capacity building by teaching them income-generating skills/activities; 2) Encouraging them to form SHGs during the training; and 3) providing them with micro-credit.

The Mahila Samridhi Yojana (MSY) provides loans to *safai karamchari* and scavengers, as well as their families, for projects with maximum costs of up to Rs. 50,000/- for small and petty trade/business and diverse income-generating activities.[150]

6.13 Micro Credit Finance (MCF)

Micro Credit Finance (MCF) - The Scheme provides loans to the target group, such as through State Channelizing Agencies (SCAs), Regional Rural Banks (RRBs), and Nationalized Banks.[151] Safai Karamchari and Scavenger are given loans under this plan and their dependents for projects with a maximum cost up to Rs.50,000/- per beneficiaries for small and petty trade/business and sundry income-generating activities. For a group of 10 Persons, Rs.5.00 lac is the maximum project cost limit, restricted to Rs.50,000/- per beneficiary.[152]

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[149] ibid

[150][Online: web] Accessed on 16 Nov Sept. 2021 URL: https://www.ncsk.nic.in.

[151] Lok Sabha Secretariat, India (2017), Report on "Impact Analysis of the Micro-Credit Finance Schemes of the National Scheduled Castes Finance and Development Corporation (NSFDC)", Standing Committee on Social Justice and Empowerment (2017-2018) (Sixteenth Lok Sabha) Ministry Of Social Justice And Empowerment (Department Of Social Justice And Empowerment, India.

[152] https://ncsk.nic.in/sites/default/files/MicroCreditFinance%28MCF%29.pdf

6.14 Mahila Adhikarita Yojana (MAY)

The Mahila Adhikarita Yojana (MAY) provides loans to the target demographic through State Channelizing Agencies (SCAs), Regional Rural Banks (RRBs), and Nationalized Banks. This scheme provides loans to *Safai Karamchari* and Scavenger women and their dependant daughters for modest and petty trade/business and other income-generating activities with a maximum project cost of Rs.75000/.[153]

Students from the community of *Safai Karamcharis*/Manual Scavengers and their dependents are eligible for an education loan to pursue professional or technical education at the graduate level or above in fields such as medicine, engineering, management, law, and IT/computers. All disciplines have graduate courses (i.e., B.A., B.Sc; & B.Com etc.). Physiotherapy, pathology, nursing, hotel management & tourism, journalism & mass communication, geriatric care, and other related job-oriented courses with a minimum duration of one year. Academic/professional courses at the graduate and postgraduate levels (from authorized/recognized Institutes/Universities) such as Bachelor of Education, Ph.D., Language courses, BCA, MCA, and so on) could also be funded through this plan.[154]

6.15 Swachhta Udyami Yojana (SUY)

"Swachhta Udyami Yojana-Swachhta Se Sampannta Ki Aur" The "Swachhta Udyami Yojana" provides financial help for the construction, operation, and maintenance of pay-and-use community toilets, as well as the procurement and operation of sanitation-related vehicles, through a public-private partnership (PPP). The initiative was launched on Mahatma Gandhi's birthday, October 2nd, 2014. This scheme aims to meet the ultimate goal of the Prime Minister of India's "Swachh Bharat Abhiyan" by promoting cleanliness and providing a source of income for Safai Karamcharis and emancipated Manual Scavengers.

The objectives of this scheme were: -

a) Building, operating, and maintaining public toilets i) Making the community latrines easily accessible to households (who do not have such facilities in their own homes) and for tourists congregating at places with heavy foot traffic, such as bus stands, rail stations, and markets. ii) To ensure proper maintenance of the created facilities by the entrepreneurs, who will have an interest in the venture. iii) Avoid the need for manual scavenging.

[153] https://ncsk.nic.in/sites/default/files/MahilaAdhikaritaYojana%28MAY%29.pdf
[154] https://ncsk.nic.in/sites/default/files/EducationLoan%28EL%29.pdf

b) Procurement & Operation of Sanitation-related Vehicles: - To build the necessary infrastructure to unlock the underutilised potential. ii) Establishing the infrastructure for rubbish collection at the source. iii) To provide work options for the *safai karamcharis*/manual scavengers target group.[155]

6.16 Pradhan Mantri Grib Kalyan Package (PMGKP)

The Government of India has led the battle against COVID-19 as part of the "Whole of Government" approach. This effort has already resulted in the extension of the PMGKP insurance scheme for health workers fighting COVID-19 for one year, starting 24 April 2021. This insurance policy was revived by the Central Government for one year to continue providing a safety net to the dependents of COVID-19 patients' health workers.[156]

It provides comprehensive and fast-moving accidents insurance coverage up to Rs. 50 lakhs for all healthcare providers, including community health workers and private health workers assigned to care for COVID-19 patients, as well as those directly engaged in their care. The scheme is administered by the New India Assurance Company (NIACL) in the form of an insurance policy. The NIACL insurance policy has been extended twice so far.

The Pradhan Mantri Garib Kalyan Package has the following goals:

- A Special Insurance Scheme would cover *Safai karamcharis*, ward-boys, nurses, ASHA workers, nurses, technicians, doctors and specialists, and other health personnel.
- In the case of an accident, while treating Covid-19 patients, any health professional will be compensated with Rs 50 lakh as part of the scheme.
- A total of approximately 22 lakh health workers would be insured under this scheme to combat the pandemic at all government health centers, wellness centers, and hospitals in the Centre and States.

The Government of Odisha launched the 'Garima' Scheme in September 2020, with Urban Management Centre (UMC) as its implementation partner. The scheme is the first of its kind to cover all formal and informal sanitation workers under its a Citizens have also responded with compassion and contributed however they can. It is important that we all are conscious of the sanitation workers in our lives and ambit. It creates a state-wide mandate to ensure safety and dignity in all sanitation work and for all sanitation workers and guarantees basic

[155] https://ncsk.nic.in/sites/default/files/SwachhtaUdyamiYojana%28SUY%29.pdf
[156] Employees' Provident Funds Organisation, Head Office, New Delhi, "Pradhan Mantri Garib Kalyan Yojan", URL: SchemeCOVID_24_10042020.pdf (epfindia.gov.in)

occupational safety standards as well as occupational benefits such as insurance, EPF, and pension. The scheme will also converge with existing benefits to ensure coverage. Their children will also receive support for education to break the intergenerational nature of this work. The state has made a big step toward long-term structural reform by being the first to categorise sanitation workers as "highly skilled" and "skilled," and advocating minimum salary increases of up to 50%. To ensure widespread surveillance and compliance with the rules, the state is also establishing a state-by-state database of sanitation workers and employers. In partnership with the Safai Karmachari Andolan, a complete enumeration of sanitation workers has already been done on a pilot basis in six cities across the state (SKA).[157]

6.17 Health Services in Delhi

In Delhi, healthcare is provided by a variety of health facilities, including Aam Aadmi Mohalla Clinics, Dispensaries, and seed PUHCs, Polyclinics, Society hospitals, and Multi/Super Specialty Hospitals (in order of level of care). Along with primary, secondary, tertiary, and quaternary level care, the healthcare institutions provide counselling and preventive care to Delhi residents. The Delhi government strives to enhance a tiered, efficient, and high-quality healthcare delivery paradigm across NCTD with this programme.[158] The Aam Aadmi Mohalla Clinics (AAMCs) provide high-quality primary health care services to Delhi residents on their doorstep. These were envisioned as re-located structures in the form of boxes. Currently, 189 such clinics are active, but the goal is to have 1000 such clinics by the end of the year. In addition to the aforementioned, the Delhi State Health Mission (DSHM) is in charge of community-based health programmes through State Program Officers. [159]The ASHA and ANM workers are the people who carry out the various activities at the household level, with the help of PUHCs and Dispensaries. The state of Delhi is divided into districts, with ASHAs and ANMs assigned to specific locations.[160]

[157] Meghna Malhotra, Prerana Somani, "Security for the sidelined: Plight of Frontline Sanitation Workers", *The Times of India*, 4, September 2021, [Online: Web] Accessed URL:https://timesofindia.indiatimes.com/blogs/voices/security-for-the-sidelined-plight-of-frontline-sanitation-workers/

[158] Krishna, S. (2020), "Delhi Report Card 5: How healthcare in Delhi has changed during the AAP tenure", 5 February 2020, URL: Citizen Mathers Newsletter, [Online: Web], Accessed on 9 March 2020 URL: https://citizenmatters.in/delhi-assembly-election-aap-report-card-health-15747

[159] Praja Foundation (2019), Report on "Sate of Heath in India, 2019", Praja Foundation, November 2019.

[160]Delhi Health & Family Welfare Department, GOI

6.17 Aam Aadmi Mohalla Clinic

The Government of the National Capital Territory of Delhi has been providing accessible and high-quality health care services through primary, secondary, and tertiary facilities, with primary care provided by dispensaries, secondary health care provided by multi-specialty hospitals, and tertiary health care made available by super-specialty hospitals.[161] These health facilities cater to the needs of not only the population of Delhi but also the migratory and floating population from neighbourhood states which constituted considerable patient load. Besides, there are many un-served and under-served areas, particularly in JJ Clusters, slums, unauthorized colonies, densely populated areas, rural areas etc.[162] , where the poor and vulnerable population has no/limited access to the primary health care services within their reach. The Aam Aadmi Mohalla Clinic has been conceptualized as a mechanism to provide quality primary health care services accessible within the communities in Delhi at their doorsteps.[163]

6.18 Policy Implications

Though over 90 percent of sanitation workers are women, negligible attention has been given to the health of these women by the government agencies in particular. Stereotyped notions about sanitation workers as polluted and unclean further aggravate the apathetic attitude towards sanitation workers by the general Public. In India, social segregation and discrimination on grounds of caste, intensifies the severity of harassment against women sanitation workers as the majority of them belong to socially disadvantaged sections.

Among the important factors that need to be taken care of in this context are:

a) Recognizing the pervasiveness and inhumanity of a caste system that separates sanitation workers from the rest of society. In addition, there should be the amendment of laws and the implementation of policies to protect the disadvantaged sections from discrimination and harassment and deprivation.
b) The state's implementation of policies and programmes aimed at improving the health of socially marginalised groups of the population, with the active participation of civil society.

[161] Lahariya, C. (2017), "Mohalla Clinics of Delhi, India: Could these become platform to strengthen primary healthcare?" 7 Journal of Family Medicine and Primary Care; Wolters Kluwer – Medknow.
[162] Government of Delhi (2019), "Functional Aam Aadmi Mohalla clinics", [Online: Web] accessed on 6 July 2020 URL: list+of+189+functional.pdf (delhi.gov.in)
[163](http://www.delhi.gov.in/wps/wcm)

c) The execution of subsidised educational programmes for sanitation employees, particularly those from marginalised groups, as well as the provision of subsidised job-oriented courses for their children.

d) Provision for medical health insurance to better health facilities within the sanitation work.

The day-to-day living of women temporary sanitation workers is marred by insecurity, harassment and vulnerability to various illnesses and other hazards. Put in a nutshell; sanitation workers are manifestations of the multi-dimensional denial of human rights in which the women suffer the most. The real solution to women's sanitation lies in the healthiness glitches that make their life challenging. As long as sanitation workers' role among the productive forces in our society is not recognised, a final answer to the sanitation work phenomenon would continue to evade policymakers.

6.19 Summary

As a result, it can be concluded that sanitation workers, particularly women, are vulnerable to discrimination. They are those who are subjected to discrimination and who feel ostracised. To avoid exploitation, they require careful attention. These people are neglected and marginalized from society on social, economic, political, and legal levels. It has been observed from the data that women sanitation workers face physical and psychological problems which have a profound effect on their health status.

The whole discussion above draws our attention towards certain basic issues at the social, and governmental level. The first issue concerns realising the healthcare services in terms of development and establishing social justice. This need of realising the access to health services makes us think to adopt suitable policies not only decision making but at the non-governmental level also. In order to resolve preventive measures in respect of occupational health and diseases, there is a need for schemes and policies. Thus, the state’s action needs to be overviewed.

Besides, the policies and programmes launched by the governments ignore the vital aspects- the health problems among the women sanitation workers. The government will have to chalk out special programmes for access to the health schemes for the women sanitation workers of Delhi.

Chapter-7

Discussions and Conclusion

The present study has been carried out against the backdrop of the health services and policies for women sanitation workers, where unbalanced health policies dictated by the government have resulted in the systematic marginalisation of the weaker section of the society, particularly the women from the lowest strata of the society. The study has specially examined the health conditions and availability of the health services for the marginalised sections of the society who have been discriminated against mainly because of their work. This chapter summarises the main finding of this study, followed by an examination of its policy implications.

In India, one of the most serious issues is the health of sanitation workers. India is a caste-based society most of the time the occupation is attached to the caste. The women sanitation workers in Delhi Municipal Corporation suffer from many health problems. The low health status of women sanitation workers and their socioeconomic elements, which are inextricably intertwined. To enhance their health, they will need an integrated health policy approach. This encompasses both awareness and concern for nutrition and reproductive health.

An important observation, which formed the focus of the study was that In Delhi, Dalits comprise the majority of sanitation workers. Among the sample of 200 respondents that were covered in the survey, the scheduled caste respondent constituted over 50 percent. The classification of the religion of the sanitation workers showed that *Hindu* constitute more than half of the total respondents.

The availability of medical treatment for female sanitation workers was studied that there is very much difference between the permanent workers and temporary workers with regard to the provision of medical treatments. Regarding the availability of medical facilities both among the permanent and temporary workers, it was observed that permanent workers have more access to the medical facilities.

7.1 The Right to Healthy Environment and Healthy Working Condition

In order to have a healthy environment, “the prevention and reduction of the population’s exposure to harmful substances...or other detrimental environmental conditions that directly or indirectly impact upon human health.” including the pollution of air, water and

soil. The provision of safe and healthy working conditions requires of "preventive measures in respect of occupational accidents and diseases," as well as a diminution in the "causes of health hazards inherent in the working environment."[164]

The study of the inability of the state to implement policies and schemes to resolve the health problems of sanitation workers since independence has highlighted the dominant role of the government of Delhi in policy making and lack of capacity of state. While the discrimination from which sanitation workers suffer has been a significant factor in their inability to apply enough political pressure to bring about the effective implementation of these schemes, there is deeper problem. This is the low priority afforded to improving the provision of health policies and schemes for women sanitation workers over the years. The state has failed to provide better health care facilities to women sanitation workers. The municipal employees work under the lack of facilities. The problem remains the same, undermined by the lack of capacity amongst municipal authorities.

7.2 Status of Women

The data presented in this chapter indicates that there are similarities as well as differences between the problems faced by permanent women workers and temporary women workers. Like all women, women sanitation workers also suffer from subordination due to the prevalence of a patriarchal system within the family. As a result of their cultural identity, they are socially excluded and discriminated against, which other women do not. The excluded women are not "just like" the rest of the women. They are also disadvantaged by who they are. They are socially excluded, which limits their options and possibilities for escaping poverty and denies them a voice to assert their rights.

The position of women within the families causes severe concern in different aspects. Domestic violence was frequently reported from women. In the respondent's household, most of the male members consume alcohol coming from work. Wife beating is too common and the husband snatches whatever is saved by the wives. Economic conditions of women sanitation worker's households have deteriorated because of consuming excessive alcohol. In the study of socio-economic conditions of women sanitation workers in Delhi, kinds of problems are identified, which are broadly classified into two areas:1. Alcohol is one of the main problems among households of women workers. 2. Domestic violence against women is too common. The patriarchal control code was higher among

[164] U.N. Committee on Economic, Social and Cultural Rights (CESCR), General Comment 14 (GC 14), Par 15

them, while mostly the permission of the male member of the family was required for women to give their opinion on economic matters.

Family Conditions

The family condition plays a crucial role in the lives of women. If their socio-economic conditions are not favourable for the progress of women, their conditions remain the same. It is important to see the women's work inside and work outside. When women work outside the home, very often their domestic work is shared by men, and women bear the double burden of work. These women are no exception. Many women are the bread earners of the family.

7.3 Political Affiliation of women sanitation workers

As far as political interest among the women sanitation workers is concerned, it has been seen that political organizations, caste associations are preferred choices. These political organizations are involved in the struggle against different kinds of discrimination, collective mobilization, building leadership as well as demanding better economic facilities, traditional employment. Additionally, these associations and organizations also play a role in underlining self-respect through promoting sanitation worker's solidarity. These associations have been demanding the abolition of the contractual system. The main agenda of these organizations is to make permanent jobs for sanitation workers. They are also demanding to stop the retirement of sanitation workers between 30 years -55 years. Municipal Safai Kamgar congress has undertaken several campaigns on these issues.

The political life of women sanitation workers is characterised based on all possible categories like caste, profession, government recruitment. Affiliation Congress party was more than any other Parties, while due to active involvement in social issues, the influence of Aam Aadmi Party was increasing among women sanitation workers. In terms of economic advancement, the permanent sanitation workers had a positive response though a few complained of the environmental conditions and lack of interaction.

The role of local *Mohalla Pradhan* is more significant in the context as the communication between government authorities and other sanitation workers is mediated through the Pradhan. The women sanitation workers are more experienced in the collective decision-making on overwhelming political questions having a lasting impact on their lives and livelihoods. My discussions with women sanitation workers reveal that affiliation for a

particular party is based on job security, delay in salaries. The most notable aspect regarding women's rate of participation as members of political party members was almost as much as the men. Respondents were found to be involving caste leaders in their political decision-making.

7.4 Economic status

Managing the family economy is one of the concerns of every household. Unemployment, delay in getting wages, economic shocks due to health emergencies etc., combine to form a general pattern of economic insecurity. Delay in wages is constantly a matter of question for every single sanitation worker. In the majority of the cases where financial assistance was needed, it was arranged through friends and relatives. Most conspicuous difference between permanent and temporary workers in terms of income of permanent workers is well of a kind. On the other hand, temporary workers are found to be relatively poorer. The interactions with temporary workers on the question of employment suggest that hope for permanent jobs highly influenced the worker's chances for continued employment. Possession of household goods was more among the permanent women workers.

It is seen that women sanitation workers help to keep the surroundings clean and are harassed by their superior authorities. While many are employed by local municipalities to clean the roads and streets, many of them still work in their traditional occupation. Many of them are the only earners in their families. It is seen that the issue of their health has been side-lined in the current discourse and policy debates in India, and it is ignored by the policymakers.

The conditions of sanitation workers are another area in the society that should be seen as lenses of discrimination and inequality in sanitation work in Delhi. The government has many health benefits and programs for sanitation workers for their rights, employments security, and dignity, but socially they face discrimination, humiliation, and inequality. Even proper health services are still not easily accessible for them. There is a need to build strong laws not to discriminate against people on the basis of their working conditions.

The difference between permanent and temporary workers in Delhi has created disparities, based mainly upon the access to various health services available for them. Little attention is paid to women’s health problems.

These women spend each day balancing household chores, being caregivers, and fulfilling their duties as sanitation workers. Their work does not recognize these multiple burdens of labour. We must look from this lens of caste and patriarchy when it comes to the municipality, where it gives more money. There are more permanent employment male are more. So, within the Dalits, another segregation is that women are more marginalised. Women's safety is not just about the safety gear, it is a women's safety net. Some women spoke of the sexual harassment they face at work. There is no complaint mechanism for redressal. There is no other job for them. Neither are they benefitting from any government schemes. All women sanitation workers lacked awareness of laws, policies, and schemes enacted for their welfare and to protect their rights. The state government and the local bodies never follow any kind of rules or regulations of the policies. They are the major big violators. The state must intervene.

7.5 Accessibility of Medical facilities

Though one of the advantages of living in the urban area includes the accessibility to better health facilities, the women sanitation workers are marginalised in this respect. Temporary women workers in Delhi remain uncovered by health services. The provision of subsidised health care through government mobile dispensaries, charitable dispensaries and other charitable organisations is seen to be almost apathetic among women sanitation workers. The number of those who are covered under subsidised health care is particularly permanent sanitation workers. Considerable numbers of sanitation workers are also seen to depend on private medical hospitals.

Basic health facilities were available in Delhi under the Study as reported to have public health centres within 1km. But among the respondents were more satisfied with the quality of private health institutions. The main problem was the long queues with the health sector. Non-availability of quality medicines was the next in line as a major problem with Government hospitals, with the majority of the people giving their opinion on the second major problem with these hospitals. The distance was given as the reason by a few people only. In the case of private hospitals, the majority of the sanitation workers mentioned the high prices. The other factors with public health centres, like doctor irregularity, were not a big problem. But few of them reported that the non-availability of medicine was a major problem. Dependence to home remedies as an option is not found much among the

sanitation workers. However, Dependence on local cure *"Pahalwan"* especially for strain injuries, was found more among the women sanitation workers.

The impact of an unhygienic workplace and the heaviness of junk are suggested by the data on respondent's disease. Practically, the Menstrual problem was the most reported disease among the women sanitation workers. Musculoskeletal disorders were the next in prominence, together with respiratory diseases like, cough pneumonia etc.

The data indicates a potential health hazard to the sanitation workers due to the exposure of dust. My interaction with different women sanitation workers confirms that expectations for family planning and pulse polio programmes and no other health campaigns are done in a common way. The distribution of Iron and Folic Acid supplementation (WIFS) programmes as per the directives of the health department also failed in many places. Thus, supplementary nutrition programmes, prenatal and postnatal nutritional programmes etc., shows the least regularity among all the official health programmes.

7.6 Opinion on Problems faced by women sanitation workers

The responses on problems by the respondents highlight the contradictions with the government policies. The bad state of basic services was more evident in the context. The pattern of response on the availability of services substantiates the problem faced by sanitation workers. Health problems surfaced as the main issues. Clogged drains, waste, and dirt scattered on the streets with human and animal excreta, plastic waste altogether define the sanitation index of the workplace of sanitation workers. All these are sources of diseases. Interrogating the sanitation workers reveals that the government has no provision to entrust the local people with sanitation workers. The constant fear of diseases rules the life of women sanitation workers. Incidence of cuts and needle prick injuries is a most common problem associated with sanitation work. The findings through discussions and responses suggest this to be exaggerated versions of the reasons and severity of diseases. This is an attempt to escape from the responsibility of arranging enough safety and prevention measures with regard to women sanitation workers. Among the issues that came up in the responses were the problems due to lack of educational facilities, fear of unemployment and lack of awareness about the government schemes. While a diminutive share of the respondents raised concerns regarding these factors having a lasting impact on denying the chances for the poor to lead a dignified life.

The question of working conditions of sanitation workers is not merely a matter of employer/employee relationship but an issue that has figured prominently in the social and political discussions of the country for almost a generation. The question of untouchability, caste differentiation, the stigma and repugnance attached to this occupation, the age-long suppression, privations, and afflictions suffered by these communities of sweepers involve the social conscience of the whole nation. The uplift of this class of people requires the breaking of traditional attitudes and a long process of education, not only of the higher castes but of sanitation workers themselves, to pull them up from the state of despair to which they have a fatalistic approach.

7.7 Utilization of Health Services

In choosing between government and private sector women, sanitation workers tend to favour private sector treatment. They are frequently dissatisfied with the government services they receive for reasons that include the cost of nominally free services and medicines, rude and improper behaviour on the part of health staff, staff shortages, a lack of supplies and medicines and long waiting times to see a doctor.

7.8 Social Status of Women Sanitation Workers: Existential Reality

On the basis of the available material on sanitation workers, there emerges a very pathetic picture. I wish to make some generalised statements based on the relevant data about the social status of women sanitation workers- the existential reality of their life and living. Sanitation workers are a marginalised class group that is seen as 'Impure' and thus ritually avoided. The conditions of women sanitation workers are extremely miserable, and the betterment of these unfortunate sections is one of the crying needs. When compared with the average income of the common people, the earnings of the sanitation workers attached to local bodies and municipalities may not be very low. Yet the conditions of these people are extremely miserable. Lack of health facilities, lack of education and lower standards of living are responsible for many of their ills. Socially they are lepers, and economically they are worse than slaves.

The problem of sanitation work in the present context is essentially the problem of finding and applying inexpensive and affordable healthcare facilities and supported by health policies, programmes, and action plans implemented through a variety of governmental and non-governmental agencies/organizations.

The sociological facets problem is no doubt, but they certainly do not operate with that much of rigor which characterized their stranglehold in the past when the caste system was the king and the low-caste people were captives.

This chapter will make an attempt to review the nature and extent of governmental action and its impact on the working conditions of women sanitation workers in municipality employment, their living and employment conditions, terms of employment and the working and socio-economic conditions of the women workers, during a span of the past decade. In Delhi city due to flushing of latrines, the problem of carrying night-soil or removing night-soil does not exist. It is observed that the Municipal Corporation is not providing the necessary facilities like bathing and washing after work, clothes, soaps, chappals, shoes, rain coats etc. All the women sanitation workers have to work for seven hours 7 a.m to 11 a.m and 2 p.m. to 5 p.m. During public holidays and Sunday day work only from 7 a.m. to 11 a.m. Unlike other government employees, they get 10 days casual leave and 30 days earned leave per year. All the permanent employees have group Insurance and that is their only savings. It is observed that some of the employees were working for the loss of pay as they had already availed all types of leave that they had in their credit.

1. A significant majority of the sanitation workers in MCD employment are women and they are scheduled caste.
2. The women sanitation workers in general are still living in the world of illiteracy, ignorance and poverty. The conditions of the permanent sanitary workers is better among them.
3. An awareness about the importance of education has been emerging among them. Although a substantial proportion of the sample respondents are illiterate, they are sending their children to schools.
4. The practice of carrying night-soil on head loads is officially abolished, the flush out system of toilets has also enabled them to improve their status.

There are a lot of programmes and policies that are currently working for sanitation workers. Of course, Swacch Bharat Abhiyan is the flagship program that is running for the upliftment of these workers. And most of these programmes and policies look into aspects of sanitation workers such as waste segregation, mechanisation and modernization of

equipment or infrastructure such as toilets. However, it is also important to look into their health.The most important problems faced by permanent women sanitation workers are ‘no awareness about the government policies’ and ‘no adequate support from the government’. Among the contractual workers, the most important problem is that they do not have access to the health facilities. There is no policy which focus on the providing the access to health facilities among the workers.

7.9 Raising of skills and wages of sanitation workers

Wages of sanitation workers should be raised, Commensurate with the hazardous nature of their work and the skills required for doing these operations. They should be treated as semi-skilled and skilled workers. Besides, promotional avenues, opportunities for skill improvement, employment benefits, prevention against occupational hazards and diseases, social security, family welfare, should be made available. Channel of promotion for sanitation workers should be defined and they should be helped through informal education, skill training to move up in the hierarchy of sanitation and health workers-going up to sanitary inspector, vaccinators, and supervisors and officers in hospitals, nursing homes, and in plants for reprocessing of sewerage, water and waste materials. They should also be trained and educated to divert to technical-professional jobs in industry and services.

Mechanization to handle waste

It is necessary to automate and mechanize the sanitation system in towns to eliminate the hand-operated waste disposal concept. Roads and streets should be cleaned with improved brooms and sweepers should be provided with personal protective equipments such as rubber-shoes, overalls, gloves, pull carts and face masks, Waste and filth collected at places should be transferred to trolley which can be towed away by trucks or dumpers depending upon the quantum of waste, width of the street and the distance to which they are to be taken. The waste should be mechanically sorted and disposed off accordingly for filling low lying areas and waste reprocessing units for plastic, paper, glass, bricks, steel units, etc. For cleaning of sewers, machines should be used and assistance should be given to municipalities and voluntary agencies to undertake these tasks.

Steps for Improving Occupational Safety

Sanitation workers are exposed to occupational risk by inadequate infrastructure, unreliable drug supplies, deficiencies in waste management, and poor performance of staff due to low

motivation or inadequate technical skills. These factors increase the likelihood of adverse events. Sanitation workers are typically the lowest-paid and least-educated employees in society. Health-care policies are essential to protect sanitation workers, who conduct some of the most dangerous jobs in society and are sometimes overlooked due to their low position. One of the most effective methods to reinforce encourage excellent and safe practises is to sanitation workers with respect and recognise their commitment to the society.

Integrated development of sanitation workers

Safai Karamcharis is drawn from various castes and communities in Indian society Scheduled castes and Scheduled tribes. Majority of them are engaged in cleaning roads, streets, and removing waste. Cleaning sewers, driving waste-dirt, night-soil trucks, carts, dead animals, etc. Ethnically they may belong to different backgrounds but their occupations are all connected with removing the waste-filth of the society. They are all "dirty' because of their functions and are 'untouchable' because of their occupations. Culturally, economically, educationally and socially they are deprived, lagging in the process of social change, poor, ignorant, helpless, and even socially oppressed. An integrated approach to their development has to be adopted. They have to be emancipated from the chains of ignorance, poverty and deprivation.

Components of integrated development are informal education, conscientization raising expectation, formal education facilities for children and young, special residential institutions for those living in unfavourable circumstances, training in new skills for occupational upward mobility, spatial mobility, sanitation, and industries, education of girls and young women, non-formal education and organization of housewives, extensive family welfare and family counselling and enabling services, promotion of self-employment in such areas as in household arts and crafts, alienation from drinking and use of drugs, the substitution of piggery gradually with cattle rearing and animal husbandry.

It will be relevant to say that efforts for providing equal opportunities of survival, living, education, employment and cultural development should be available to them. This is the responsibility of the society and the state. However, it is also essential that these deprived people have to organize themselves to claim their own place in society.

7.10 Future Needs

It is unfortunate that health care access and quality are inequitable for a welfare state dedicated to equality, social justice, and democracy. Health is a multifaceted issue for women -- mental, reproductive, and nutritional health are all interdependent.

1. To address women's varied health needs and to overcome the many barriers to healthcare that women face, it is important to provide inclusive and gender-sensitive primary care.
2. Improve public healthcare for the women sanitation workers.
3. There should be protection against domestic violence, physical violence and sexual abuse for women.
4. In order for these groups to improve their health indicators, it is important to provide them with easily accessible, affordable healthcare services.
5. Medical security for contractual workers in the MCD is critical, as it can assist them in the event of illnesses, injuries, other kinds of ailments.
6. Increase worker understanding of their right to health and organise them to participate in community education.
7. Assess the implications, accessibility, affordability, and acceptability of the health policies and services available to protect the health of female sanitation workers.
8. Laws pertaining to the health of these marginalised populations should be properly implemented.
9. Regular health check-ups are required, as well as health insurance, in order to protect sanitation workers' health. Permanent municipal sanitation workers in Delhi are covered by health insurance. Permanent staff has their health checked on a regular basis.

Medical care and public health services are two types of health services that are dependent on a community's political system. Political forces/ideologies play a significant role in establishing the country's health policies, including resource distribution, personnel policy, technology selection, and the degree to which health services are made available and accessible to the general public. The health-care policy can be utilised as political instruments to advance vested market interests.

Education

There are many reasons for educational backwardness among women sanitation workers. The primary reason for the lack of their children’s education must be sought in the

community's economic condition. The lack of interest in education is also true among their children. The majority of their children are involved in informal sector jobs. Most of them are daily wage labourers, rickshaw pullers and auto drivers etc., or are employed temporarily in small hotels and shops. Husbands of women sanitation workers were also involved in the same occupation. This is observed that education for children is encouraged, but higher education is seen as an economic burden. Most of their children are educated till high school or intermediate level. After that, parents find it difficult to afford further studies for their children.

7.11 Challenges faced by sanitation workers (through in-depth Interview)

On the basis of the available data on women sanitation workers, there emerges a very pitiful picture. Sanitation workers constitute an underprivileged social group. They exist on the outskirts of society. Despite the fact that their services are highly valued, they are frequently isolated from social contact. Because of their ritually filthy profession, they are socially shunned. Because of their economic and educational disadvantages, many sanitation workers' families have been denied access to benefits intended to help the poor.

India has 1.1 million urban sanitation workers, of which 50 percent are women. Their duties range from street sweeping and garbage collection to cleaning public toilets and drains. Some are permanent workers; others are contractual workers. Despite the hazardous nature of their work, they labour without any safety gear.

The following case studies highlighted the plight of women sanitation workers in Delhi. These case studies reveal the gravel and resilience with these ill-fated women, fight over their miserable living conditions and care for their household and community. It also examines their aspirations for their family and especially their children; aspirations that get wrecked in the vicious circle of caste-ridden society that has been trapped in.

7.12 Case Studies

As a part of my research project, I have conducted an in-depth interview of the women sanitation workers and summarized their condition in employment and their health conditions.

Case Study 1: *A Hindu Dalit belonging to the sanitation work is a 41-year-old woman said, I was born in Haryana, my father was a 'Safai karmchari'. After marriage, I shifted to Delhi and settled down in the present slum resentment colony in Delhi. My husband used to make a living by ironing clothes. For the past six years, however, he has been unable to work; having fallen ill with T.B. I had to take over all the responsibilities of running the household. I have three children. However, my monthly income ranges from Rs. 9,000 to Rs. 11,000. Far from being able to save anything from the income, I have to spare part of the money for repaying debts that were largely accumulated over her husband's treatment. Every Month I try to spare Rs. 2,000- Rs 4,000 for this purpose. I have to spend around Rs. 1,0000 to Rs. 12,000 for her husband's treatment and raised this amount by borrowing money from relatives and friends without interest.*

Case Study 2: *A 40-year-old woman of the Balmiki caste said, I married at the age of sixteen, I have two sons and two daughters. I have got one of her daughters married, and my other one daughter is still studying and now I hope she will get a government job. I treat my children equally but, yet worries more over her daughter's future.*

Case Study 3: *I wake up early in the morning to make tea, breakfast, and tiffin for my children. Before I send them to school then at 7 am I have to report to duty. We sweep the street, clear out the garbage, and blockage from the drains. After all of this, we collect all the garbage on our wheelbarrow and take it to the dump yard. We should get gloves and marks for our safety. All the dust makes it difficult for us to breathe. I am employed on a contract and not permanently. I get approximately Rs 12,000 per month. The municipality deducts provident funds, but I don't know how much. To find out I need to make multiple rounds to the office. They don't give us information easily. I hope the government makes us permanent workers. Then in case of my death, my daughter will get a permanent job.*

Case Study 4: *A 37-year-old woman sanitation worker said my worker's husband passed away and, in his place, I was hired as an outsourced employee. I get paid Rs 9,000 per month. I have three daughters and a son. Sometimes we eat less to make ends meet. But I always complete my work. Over the years, I have gotten used to the work. There is always*

something that needs to be done. There are no dreams. Life will just go by doing this work. There are no facilities for us. We only receive money for what we do. No one voices their grievances. If I refuse the work, then someone else will do my job. So, no one says anything. Nobody understands women's problems. During menstruation, we face a lot of discomforts, but there is no provision for that at work. There are no toilet facilities either. We have to come home for that. If we voice our problems, we are asked to take casual leaves. Sometimes we work odd hours on the streets.

Case Study 5: *A 36-year-old women sanitation worker said society looks down upon sanitation workers. People abuse us and call us derogatory names like "Bangi". They say Saint Valmiki was a scholar and had a pen in his hand. So, who gave the broom to the Valmiki community? It is some contractors of our society who promote this discrimination. After my mother passed away, I had to stop my education. My father got me married off after I finished class 12th. After marriage, I became a sanitation worker. My husband thought that since I am educated, I could do a desk job at the municipality office. So, I did a computer training course at the MS office. After that I worked for a month at the MCD office. But a member of my community did not want me, a woman, to work in any other job. If I could have completed my education, then I would have been a teacher today. I hope my daughters don't have to go through the struggles that I faced and become independent.*

Case Study 6: *A 35-year-old widowed said, my life has been a struggle, with two daughters to look after, my husband was a driver. My husband had lung cancer. When he was ill. I used to be ill-treated by my in-laws. After my husband's death, they kicked me out of the house. I was compelled to take this job. I went up to my mother who used to live in 100 quarters, Karol bagh. However, I started working this job. In the beginning, the men in the locality used to trouble me but I was able to handle the situation so nobody ever dared to trouble my daughters and me. I am worried about my daughters. I don't have any option but to work here. This is what we do every day if we do not work on a particular day, then we don't get paid. There is no other job for us. The government runs many programs to help our work and life conditions. But we don't have an idea about them. Most of the workers are uneducated. So it is the officer's responsibility to give us the information.*

Case Study 7: *41 years old, sanitation workers from north MCD said that our work is never done. We work outside and participate in home-making functions such as cooking, cleaning, feeding, and caring for children. A man's work is only limited to a Public place.*

There have been weeks where I have managed everything alone. I have worked with full honesty for almost 12 years now. My eyesight is poor. And I am the sole breadwinner of my family. My husband is a heart patient. I have two daughters. The government has stopped permanent recruitments. The municipal authorities place the work in such places that we have to clean the dead animals. Once during my work, my leg was hurt by broken glass. My feet swelled. I did not get any help from the municipality.

Case Study 8: *A 29 year old sanitation worker said, We got masks, sanitizers only once or twice initially. After that, we never got protective equipment. There are no facilities. We have to clean medical waste, all kinds of waste. We work on the waste with our bare hands. This COVID is spreading more and more. When we ask for protective gear, officers say there are no supplies. I work for a private agency; we never get any facilities. We work in dangerous conditions, but we do not get anything from the officers. During a pandemic we are exposing ourselves to viruses every day. No masks, gloves, and sanitizers were provided to us. We are working without protection. Nothing has been done so far for our safety and security concerns. We are risking our lives every day.*

Case study 9: *A 47-year-old sanitation worker said I married at the age of 19, and live in Janakpuri, Delhi. I lived here for twenty-five years. I started working when I was twenty-one years old. I had to undergo many problems. My husband works in a hotel earning Rs. 9,000 per month. My husband used to physically torture me regularly. But he has stopped abusing me now. However, I was able to pass that most difficult phase of my life only because of the moral support I received from my in-laws. I have a daughter and a son. My daughter is a big responsibility to me. I had to discontinue her education at the 12th standard. However, she got married to the shopkeeper. I believe that getting the daughter married will save the girl's family from a lot of headaches. I have to work as a sanitation worker, I feel helpless. We cook at home, take care of children, and attend to the male members of the family. We are responsible for cleaning the indoor and outdoor spaces, but still, we get irregular and insufficient salary. She said that my husband used to work in the hotel but now he is ill. He has diabetes and blood pressure. He is no longer at work. There is no other job for us. Neither we are benefitting from any government schemes. There are no toilets or changing rooms for them in the wards. There are no changing rooms for them in the wards. They don't even have a place to have lunch during the day. If we sit on a chair outside someone's house to have their lunch, people wash the chair with water to clean it. This is the society we live in, even today.*

7.13 Women sanitation workers in the midst Covid-19 Pandemic

The advent of the COVID-19 pandemic has enhanced the difficulties of women sanitation Workers. During pandemic outbreaks, demands for healthcare for sanitation workers has increased. They are in duty of waste collection, toilet cleaning, road cleaning, and sanitation services. They are required to clean public spaces as part of their job, putting them at risk of infection. Infection with COVID-19 can result in an additional layer of stigma and discrimination, which can lead to job loss and difficulty accessing healthcare services.

Women were disproportionately affected not only by adverse shocks to income and livelihood due to lower coverage under employment benefits, insurance, and other support measures, but they were also less prepared to cope due to lower coverage under employment benefits, insurance, and other support measures due to the higher representation of female sanitation workers among the informal workforce. During the epidemic, many women experienced increased workloads, making it harder to manage home tasks and care for children. Owing to lockdown limitations and the possibility of COVID-19, many mothers were unable to bring their children to work due to the pandemic crisis. Some women reportedly reported additional issues during menstruation since public bathrooms were restricted owing to the lockdown, making sanitary services impossible to obtain. Furthermore, during the lockdown, the additional workload and commute caused physical discomfort during menstruation.

Women sanitation workers are facing major issues. They are not even being paid a regular salary. Their contractual jobs are also suffering due to the economic crisis during the pandemic. A group of women sanitation workers said, “It was difficult to manage daily expenses during the lockdown period” Sanitation workers experience caste-based exclusion on the basis of caste-based occupation. Thus, these forms of stigma drift in systematic exclusion. Terms like social distancing function in a much complex way in a caste-based society.

Caste and gender in the context of pandemic trigger oppression of the Dalit women. They have to face multiple oppression and day to day physical violence from the upper caste. Dalits are shunned for their impure presence. Purity and pollution in times of pandemic have strengthened its relation to occupation. Pandemic across the globe is impacting the lives of labourers. Women sanitation workers who are doing valuable work for society are

forced into despicable conditions. Women sanitation workers are unskilled and unaware of caste-based jobs.

The research investigation seemed to appear initially appalling to almost all the respondents. Majority of women were able to carry out their daily work routines, they considered themselves ‘healthy’ for many respondents being healthy meant being mobile and being capable of carrying out household tasks. Coming down with ailments like small fevers, body aches, headaches, infections, etc. was considered as inconvenient but was not deemed as being ‘sick’. The women said they did not have the option of letting such ailments come in the way of household chores and their daily jobs.

Many women reported the lack of transportation during lockdowns. They were unable to walk long distances to their worksites, with no flexibility in reporting time and working hours. Sometimes they had to wake early in the morning and return later than usual. This added stress to managing their time and domestic chores, along with the accompanying fatigue and exhaustion from walking to work and back.

The present covid 19 pandemics have forced them to work at the edge of hazardous workplaces without basic safety equipment. This underlines the hazardous consequences on sanitation workers' health and the urgent necessity to bring their issue to the attention of the general public.

Sanitation employees have a greater risk of death during the Covid-19. Thousands of people are dying as a result of the deadly coronavirus, yet workers continue to work since there is no one else to replace them.

7.14 Challenges faced by women sanitation workers during pandemic

The role of sanitation workers has always been indispensable in human society, but their perceived importance in India has increased tremendously only in recent history since the arrival of COVID-19 pandemic in the country in early 2020. Sanitation has suddenly become a question of life and death. However, the importance of sanitation has increased, it has hardly translated into any improvement in the work conditions of sanitation workers. Instead, as we report here, the conditions of India’s sanitation workers have worsened during the first two months of the pandemic and a nationwide lockdown in India.

Sanitation workers were not getting salaries regularly, including permanent employees. They were struggling financially during the pandemic and did not receive any help from the government. They did not receive health check-up facilities or treatment if they caught COVID-19.

The COVID-19 experience has taught the healthcare sector important things. One of them is the necessity for large cities to execute meaningful and long-term sanitation initiatives. Only a motivated workforce will be able to accomplish this. As a result, issues like fair compensation, medical and maternity benefits (for female employees), safety equipment, respect, and job security must be addressed immediately. It is vital to change the public's view of sanitation employees in government and civic society.

7.15 Limitations of the study

The information provided by the respondent is recorded in the interview schedule. The respondent was in general open to discussing their problems, eager to know the outcome of the study and how they would benefit from it. In a few cases, the researcher had to face the frustration of those fed up with the current situation of covid-19, while their living conditions remained unchanged. However, in general, the respondent was most hospitable with a welcoming attitude.

7.16 Recommendations

Although we come across a change in their conditions, there is a crying need to take certain measures in improving the conditions of women sanitation workers. Ill-health is one of the key problems facing this group. The improvement in their economic condition has also not influenced eliminating the menace of alcoholism. The following measures are necessary in this regard:

a) The municipality has to play a much more active role in ensuring that rules and regulations mechanisms are followed.
b) It is vital for sanitation workers to be able to do their jobs in the least hazardous way possible. It is also important for them to be able to have access to new skills. To switch to alternative vocations and jobs.
c) It is important to acknowledge the double burden of labour that women sanitation workers undergo every single day. We cannot forget that 50 percent of sanitation workers who are keeping our cities clean are as much workers as they are mothers. So, it is extremely

important to look into the provision of creches, shades, drinking water, of first aid. Because these are provisions that look into the physicality of the strenuous physicality of the labour, so it is this double burden of labour that needs to be embedded in the policies, in the programs. That is looking into making women sanitation worker's lives better.

d) There must be a research centre that investigates the living conditions of sanitation workers, their health issues, and the difficulties in accessing and completing education, as well as the difficulties the women workers face when it comes to accessing a grievance system.

e) As the sweeper community has low literacy rates but an open attitude and a positive attitude towards girls' education, a policy is needed that will increase their literacy rate and higher levels of education for children and adults alike.

f) In improving their health, there is a need for arranging regular medical check-ups and free medical facilities should be provided to them without having to undergo the cumbersome procedure of medical reimbursement. There is also a need for regular health camps in their localities in improving the health of the family members.

g) The members of other castes should maintain close contact with them and realise that they also have friends in society. All of us should realise that only through their noble service, it is possible for us to maintain good health.

h) The government should take up certain stringent measures in improving sanitation. The authorities should not grant permission for construction in the areas where there are no flush-out system toilets.

i) The practice of untouchability and the feeling of inferiority and superiority is a major stumbling block in ignoring the simple rules of sanitation and health. Health and sanitation education should be compulsorily taught in schools. The children should be taught that sanitation is necessary for their own sake as well as for others.

j) There is a greater need of setting up more public toilets, particularly in thickly populated areas and in places having floating populations.

k) Stringent action should be taken against those who defy sanitation.

l) The ideology of considering occupation as superior and inferior should be eliminated. This ideology is a major hindrance in the economic and social development of sanitation workers.

m) Personal hygiene, diet, and family planning should all be covered in health education.

n) Mobile Health Units should be established to visit all-sweepers areas, and sanitation employees should be insured by the Employees' State Insurance Act, 1948, in the same way as industrial workers are.

o) At the workplace, bathing and washing facilities with soap should be available. Each sanitation worker should be given soap to wash their hands before and after work.

p) All workers who come into touch with night soil at any point should be provided with gumboots and hand gloves.

q) In the community, special provisions should be provided for maternity and child welfare services. This service will include family planning as well.

r) All employees and their families should get mandatory vaccines against smallpox, cholera, typhoid, and TB at periodic times, with a proper record kept by the Local Bodies. Diphtheria, whooping cough, and tetanus vaccinations should be provided free of charge in maternity and child welfare programmes.

s) All workers and their families should get regular medical examinations.

t) Better equipment and mechanisation should be provided to decrease working-day encounter with night soil and polluted trash.

u) Health insurance and regular health checks-ups should be included in the standards and guidelines for sanitation workers. Therefore, the municipality should not only provide such a facility but also insist upon the women sanitary workers for a regular medical check-up.

7.17 Safeguarding of the Sanitation workers

1. Training

   Proper adequate training for the recruitment of sanitary workers can help regarding their hygienic practices, and harmless handling of the waste. Personal protection equipment, when used properly, can ensure protection from a variety of diseases.
2. Hygienic Practices
   - Hands must be thoroughly cleansed with soap and water after handling garbage.
   - Wear gloves and avoid handling rubbish with your bare hands.

- Hands should be washed thoroughly with soap and water before and after drinking, eating.
- Cut nails short to lessen the chance of infection from dirt accumulation.
- Infected hands should not be used to contact the face, eyes, nose, mouth, ears, cuts, or wounds.
- Tobacco chewing and smoking should be prohibited during waste disposal.
- Before eating, remove any personal protective equipment and make sure your hands are clean.
- Remove any personal protection equipment, such as rubber boots and clothes, after the working period and carefully wash, dry, and store it.

Discrimination is one of the most significant impediments to sanitation workers' integration into society as human beings capable of living dignified life. According to all opinion studies, female sanitation workers are consistently one of the socially undervalued groups, and it is undeniable that this social rejection leads to discriminatory practices that manifest on a daily basis in a variety of public and private contexts, including education, employment, housing, and healthcare services. A picture of caste violence emerged from several case studies and narratives. Women sanitation workers face a variety of disadvantages in terms of health and nutrition, education, wage, occupation, and access to various resources, according to the findings. Finding reveals that sanitation workers have been associated with smoking and tobacco habits.

7.18 Summary

The study introduces the concept of human health and well-being in the first chapter, followed by health issues of women sanitation workers and the nature of labour. The major objectives of the study were to examine the socio, economic and working conditions of women workers employed by the MCD of Delhi. Secondary, to investigate the nature of differential use of health-care facilities among permanent and temporary women workers, as well as how sociocultural, economic, and demographic factors influence the use of various types of health-care facilities. The fourth chapter tries to give a socioeconomic description of the respondent that were interviewed. Age, educational status, caste, religion, marital status, number of children, monthly income, alcoholism among husbands, consumption of tobacco/gutka, housing pattern, availability of toilets, prior employment

before the current job, number of working hours per day, reasons for choosing a current job, and nature of work were all covered in the fourth chapter. According to a study of respondents' background characteristics, the majority of respondents (52 %) are between the ages of 40 years – 49 years, and the majority of respondents (80 %) are married. According to the percentage of respondents that are illiterate, 43 percent of the total respondents are illiterate. The Hindu religion is followed by the majority of the respondents (92 %). Almost one-third of respondents (37%) had an annual income of less than Rs. 15,000. In the fifth chapter, it was found that there were no substantial differences in health concerns between permanent and temporary workers. Both were discovered to be suffering from the same health issues. Permanent employment has a better chance than temporary jobs. The findings point to a notable disparity in the availability of health treatments for permanent and temporary female employees. Private health care facilities are utilized more by permanent workers. As temporary workers seek preventive health care from government facilities. The main reason is the lower-income, which prevents temporary workers from using private facilities

The access to medical facilities presented a dismal picture. Workers in the sanitation work were discovered to be seeking medical treatment from private hospitals. Health care actions to prevent common diseases were reported in each area, as were HIV/AIDS and family planning initiatives. Because they live in slums, less than 2% of households use public restrooms. Different welfare policies do not apply to sanitation workers. The temporary workers were more likely to advocate for government intervention in order to solve difficulties. The respondent, on the other hand, advised that more to be done because of public activities and people's endeavours to fix the problems.

Workers in sanitation work are among the most vulnerable. The fact that women sanitation workers had a greater rate of musculoskeletal and skin disease due to the nature of their employment, which is physically demanding and entails lifting and dragging. They have a duty profile that includes carrying oversized items, pushing and pulling frequently, and walking long distances. Manual handling and a lack of protective clothing/equipment, which resulted in direct contact with trash, were associated with numerous health concerns. Sanitation work is one of the worst types of work, as it requires individuals to work in order to satisfy their hunger. It is widely recognised as the most unhygienic and dangerous for their physical growth and development, as well as a health risk. While collecting garbage, sanitation personnel face a high risk of illness. The government utterly disregards the health

of women sanitation workers. Their employment is dangerous and sporadic. Sanitation labour is a fight for survival for urban impoverished communities.

Women sanitation workers in the Delhi region face several health issues. The most serious issues concern musculoskeletal and skin health. The low health condition of sanitation employees can be traced to their occupations, which are inextricably intertwined. To enhance their health, they will need an integrated health policy approach. This includes nutrition-related health-awareness programmes. One of the ways to raise their awareness and encourage their economic empowerment is through education. Women sanitation workers in the Delhi area are deprived of good health. Their health-care system is also insufficient. In the healthcare system, the health problems of temporary workers were not adequately addressed. As a result, for Delhi's temporary employees, a healthy lifestyle for everybody is still a dream.

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APPENDIX A

This questionnaire is the part of the research work Topic: Health Policies and Schemes for Women Sanitation Workers in Delhi, 2008-2018, there are 36 questions in the questionnaire. The questionnaire covers socio-economic, family and working conditions and as well as health conditions of women sanitation workers.

Schedule Number

_____

Date

_____

(General Information)

1. **Name**
2. **Religion**
3. **Address**
4. **Gender**
5. **Name of hometown**
6. **Occupation**

Family Details of respondent

Sr. No.	Name	Relation with the Respondent	Sex	Age	Marital status	Occupation	Nature of employment		
							Govt	Private	Others
1.									
2.									
3.									
4.									
5.									
6.									

7. Approximate age

a. 18 years - 28 years ☐
b. 29 years - 39 years ☐
c. 40 years - 49 years ☐
d. 50 years – 59 years ☐
e. Above 59 years ☐

8. Education Qualification

a. Illiterate ☐
b. Primary School ☐
c. Middle School ☐
d. Higher Secondary ☐
e. Graduate ☐

9. Housing Pattern

a. Kaccha ☐
b. Semi-pucca ☐

10. Annual Income

a. Rs. 3001 - 9000 ☐
b. Rs. 9001 - 15000 ☐
c. Rs. 15001 - 21000 ☐
d. Rs. 21001 - 27000 ☐
e. Above Rs. 27000 ☐

11. How many years have you been in your current job?

a. Less than one year ☐
b. Two years ☐
c. Five years ☐
d. Ten years ☐
e. Above ten years ☐

12. What is the current employment status at MCD?

a. Permanent ☐
b. Temporary ☐

13. Before this job, what was your prior employment?

a. Unemployed ☐
b. Self-employed ☐
c. Casual worker ☐
d. Any Other (Specific_____)

14. What is the number of hours you work per day?

a. 7 - 8 hours ☐
b. 9 - 10 hours ☐
c. More than 10 hours ☐

15. If toilets are available, what are they like

a. Own toilets ☐
b. Public toilet ☐
c. Open space ☐
d. Sulabh Shauchalaya ☐
e. Mobile toilets ☐

16. What were the factors that influenced your decision to take this job?

a. Husband does not give money ☐
b. Lack of education ☐
c. Government job ☐
d. Traditional job ☐
e. Poverty ☐
f. To increase family income ☐
g. Any Other (Specific_____)

17. What is the actual work type on your workplace?

a. Toilet cleaning ☐
b. Wet or dry waste loading on wheel barrow ☐
c. cleaning manholes ☐
d. Disposal of dead animals ☐
e. Any Other (Specific_____)

18. For minimising of accidents causes mainly by miserable working environment for sanitation workers employed under DMC department. Tell your option response about provided necessary equipment or tools, implement by DMC ward office?

a. NO or never get anything by DMC or DMC supervisor ☐
b. Yes ☐
c. At presently, not getting, but provided before some years (Before 2 or 3 Years) ☐
d. Any other ☐
e. If answer is 'Yes', do tick mark before equipment or tools which have been providing by DMC ward-office while working. 1) Mask ☐ 2) Gumboots ☐ 3) Uniform ☐ 4) Raincoat ☐ 5) Hand-gloves ☐ 6) Sanitizer ☐ 7) Soap ☐ 8) NA ☐

19. Do you have access to a proper changing room at work?

a. Yes ☐
b. No ☐

20. Expenditure on Medicine and health treatment by the Govt Doctor and especially has to be paid the Private Doctor.

a. Up to Rs. 1001 ☐
b. Rs. 1001 – 3000 ☐
c. Rs. 3001-11000 ☐
d. Rs. 11001-13000 ☐
e. Above Rs. 13000 ☐

(Basic Health Status)

21. Do you have any challenges at work that are related to your job?

a. Unhygienic workplace ☐
b. Long working hours ☐
c. Rude behaviour of the supervisor ☐
d. Unequal salary for the work done ☐
e. Work during all climate conditions ☐
f. Any Other (Specific_____)

22. Do you have any health-related problem? If yes, tick below.

Sl. No.	Diseases	No Problem	Rarely	Frequently
a.	Musculoskeletal disorder			
b.	Skin diseases			
c.	Menstrual disorder			
d.	Respiratory problems			
e.	Gastrointestinal problem			
f.	Hypertension			
g.	Lung disease			
h.	Tuberculosis			
i.	Other			

23. Is your ill health connected to your work?

a. Yes ☐
b. No ☐

24. Are you ever got addicted to tabacco/gutka due to the 'Unclean Work and under unhygienic family environment?

a. Yes ☐
b. No ☐

(Medical information)

25. Which medical facilities do you follow?

a. Private Hospital ☐
b. Government Hospital ☐
c. Private Clinic ☐
d. Mohalla Clinic/Dispensaries ☐

26. Do you see the Doctor frequently?

a. Once in a week ☐
b. Once in a fortnight ☐
c. Once in a month ☐
d. Rarely ☐

27. Do you receive any health check-ups by the government?

a. Yes ☐
b. No ☐
c. Do not Know ☐
d. If yes, where it is located? ☐

28. Do you have any health Beneficiary card?

a. Yes ☐
b. No ☐

29. Which hospital do you go frequently?

30. What is the doctor/hospital staff attitudes towards you?

31. Has DMC been conducted heath check-up camp during bounded time-span?

a. Yes ☐
b. No ☐
c. Do not Know ☐

32. Do you get any leave facility in the job?

a. Yes ☐
b. No ☐

c. If yes, can you tell me about it?

33. Do you get paid leave?

a. Yes ☐
b. No ☐

34. Do you Have Health Insurance, if Yes then specify?

a. Yes ☐
b. No ☐

35. Have You Suffered from Covid 19?

a. Yes ☐
b. No ☐

36. Are you satisfied with your job?

a. Yes ☐
b. No ☐

APPENDIX B

Survey Questionnaire responses (specific only)

Figure 4.1: Age Distribution of Women Sanitation Workers

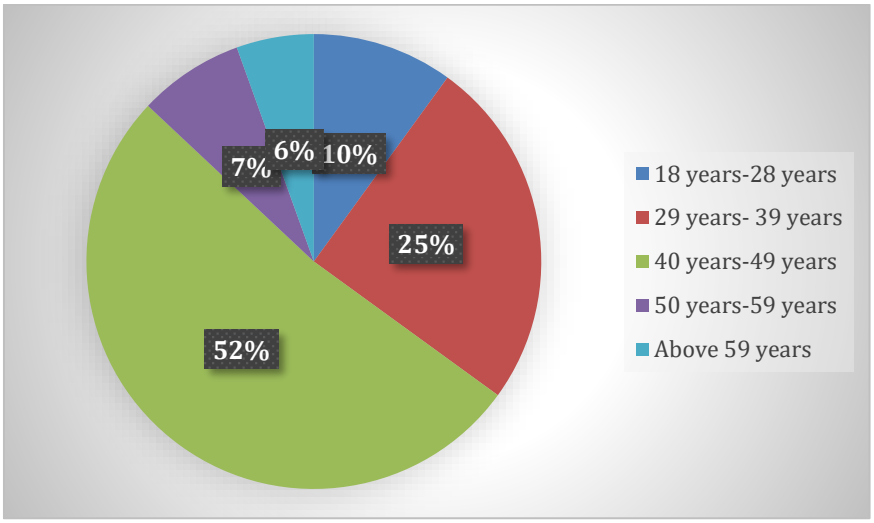


Figure 4.2: Educational Status

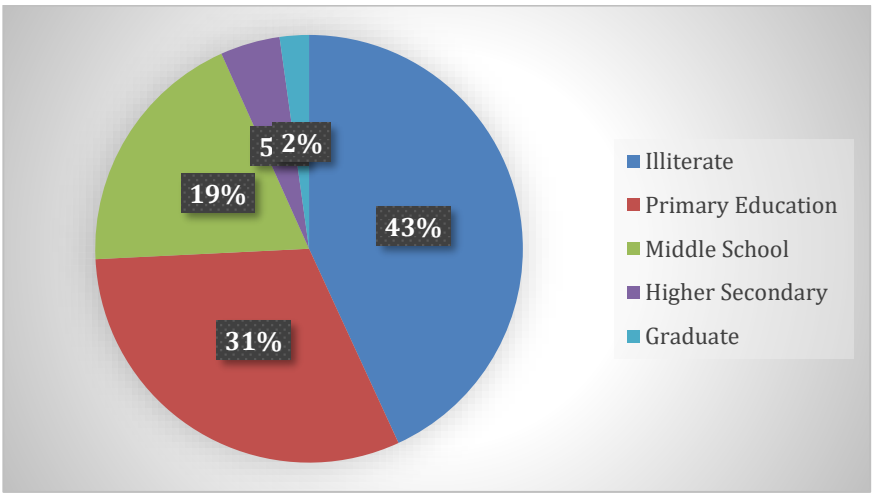


Figure 4.3: Caste

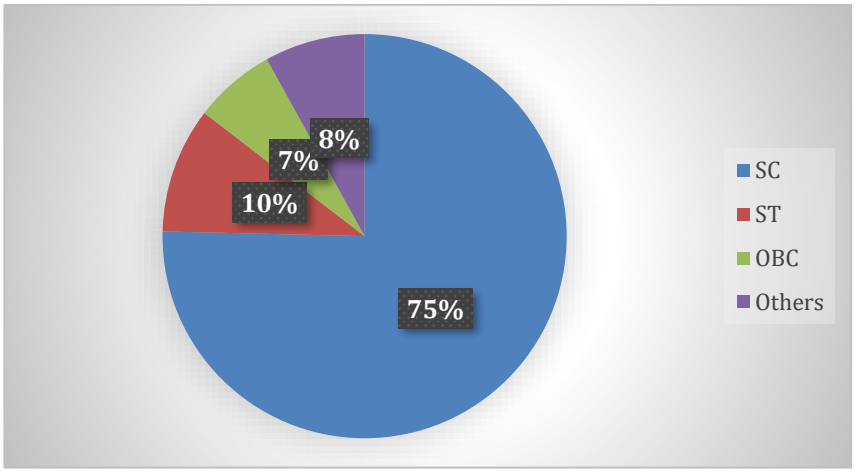


Figure 4.4: Religion

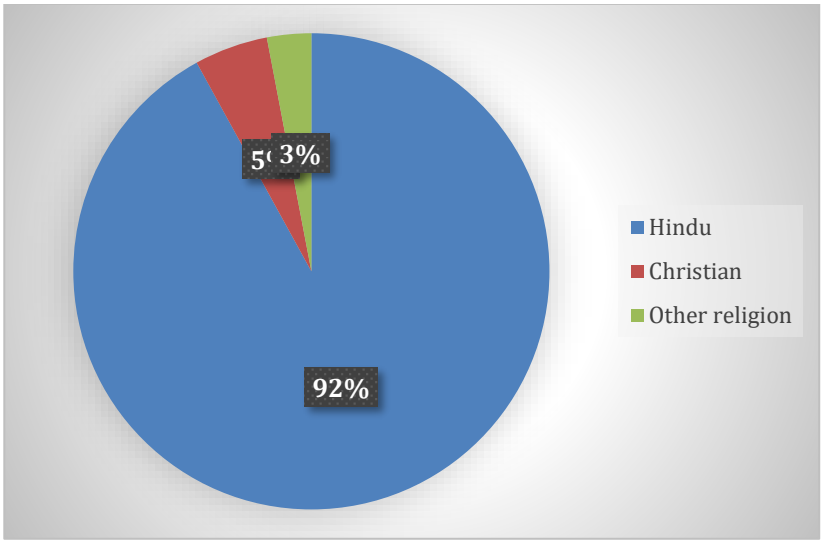


Figure 4.5: Marital Status

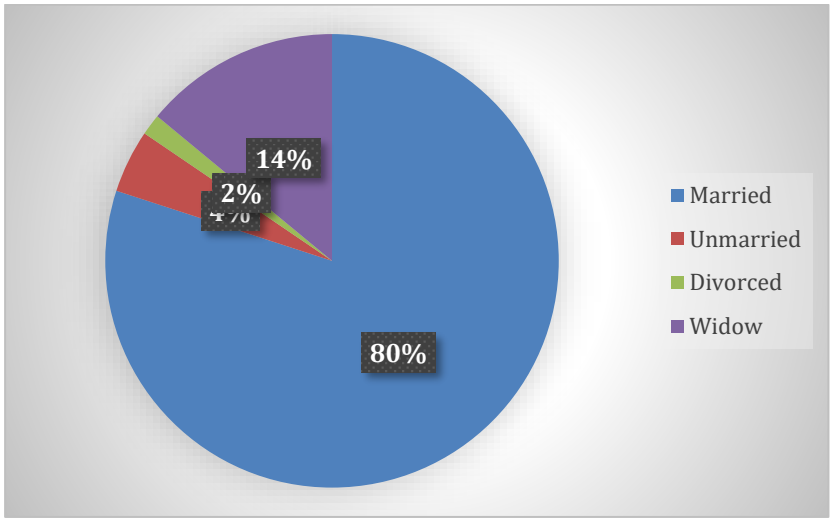


Figure 4.6: Number of Children

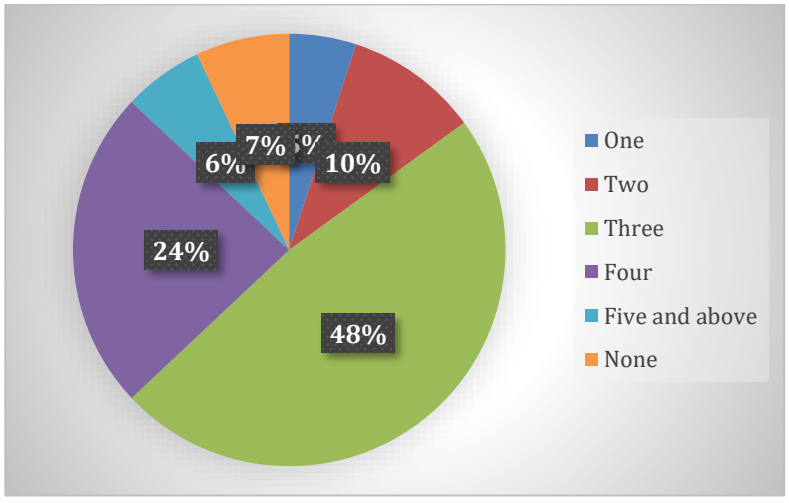


Figure 4.7: Monthly Income

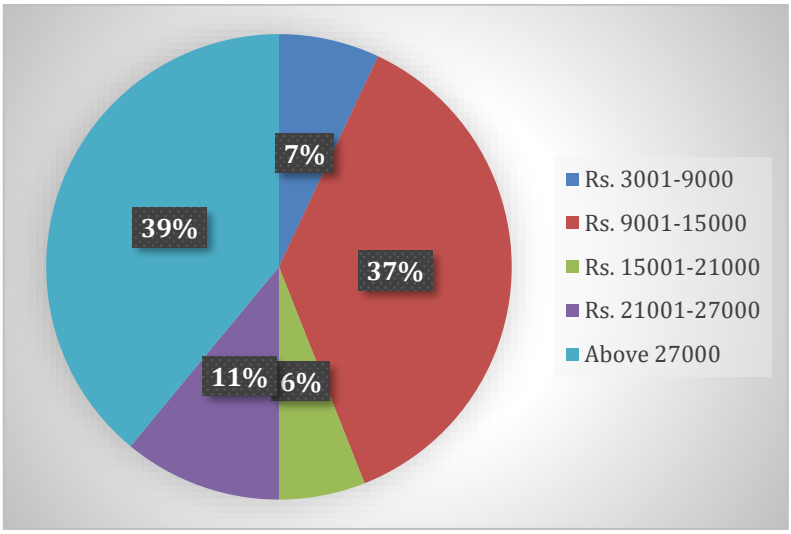


Figure 4.8: Alcoholism among husband

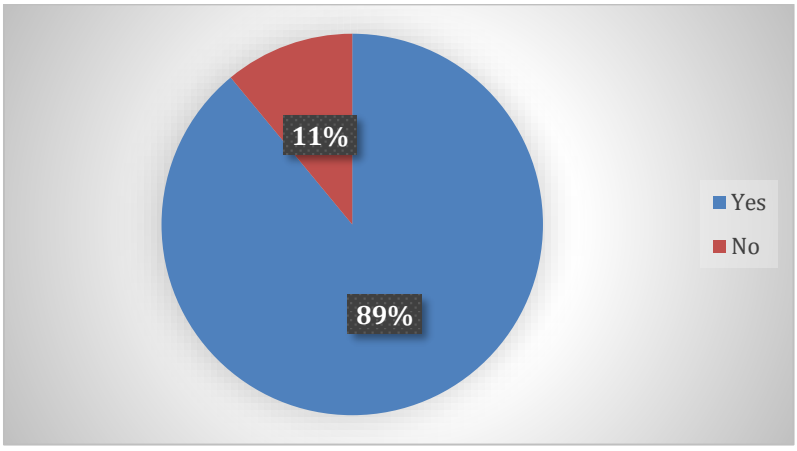


Figure 4.9: Consumption of tobacco/gutka

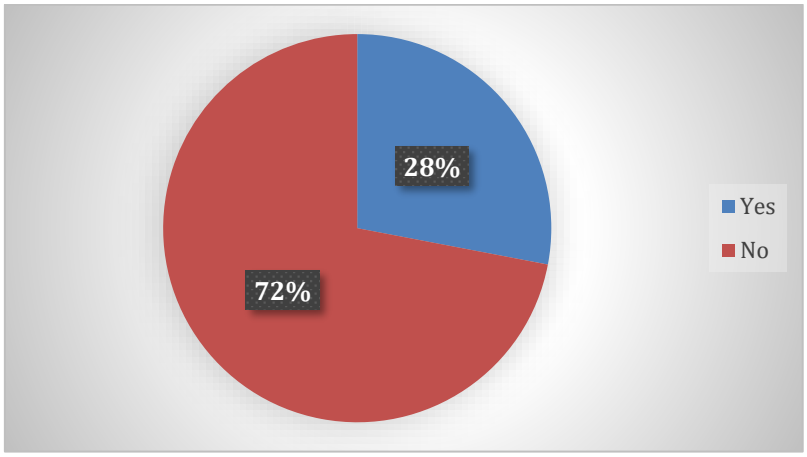


Figure 4.10: Housing pattern

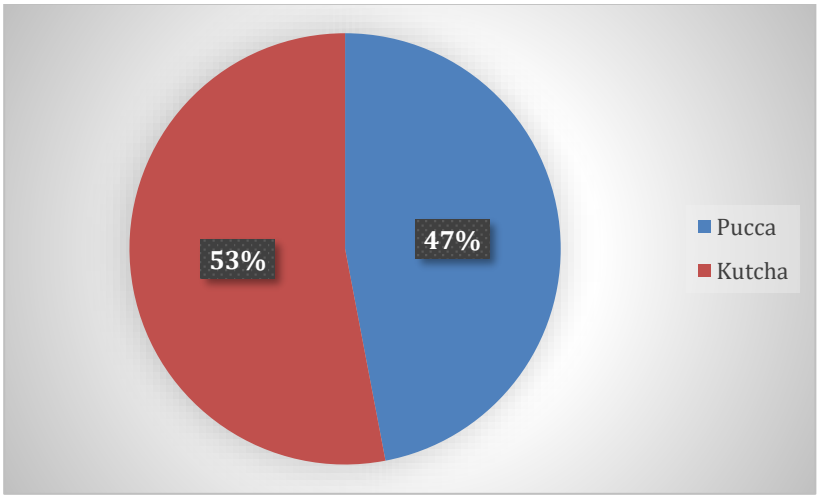


Figure 4.11: Availability of Toilets

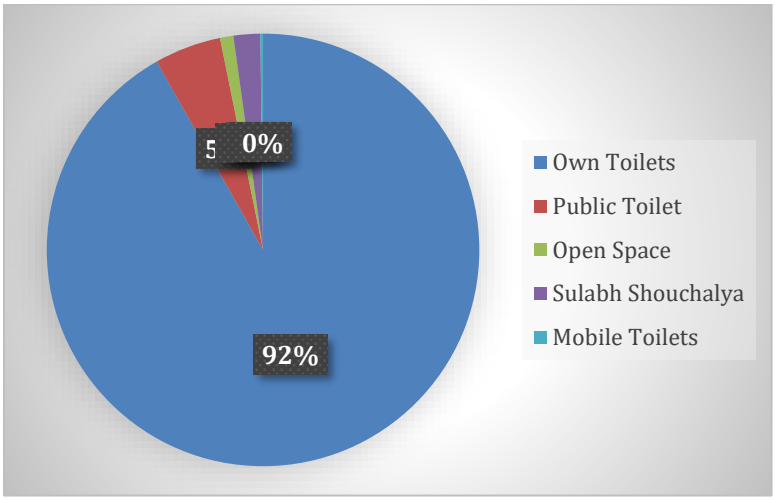


Figure 4.12: Number of years in the present occupation

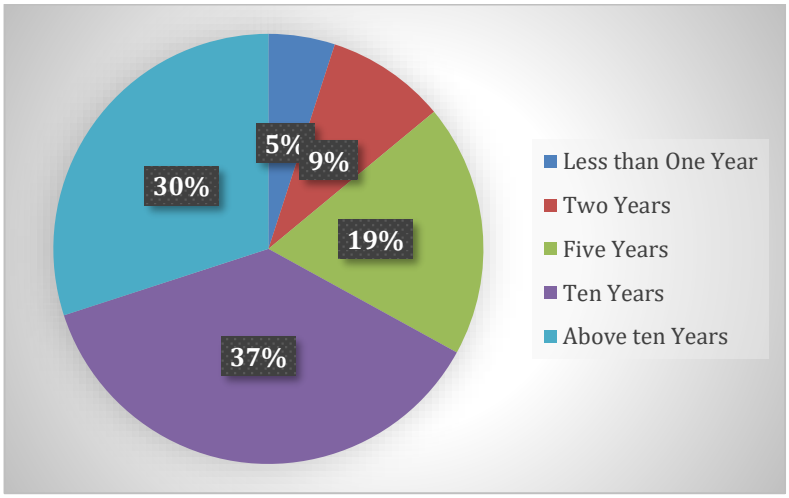


Figure 4.13: Prior employment before present Job

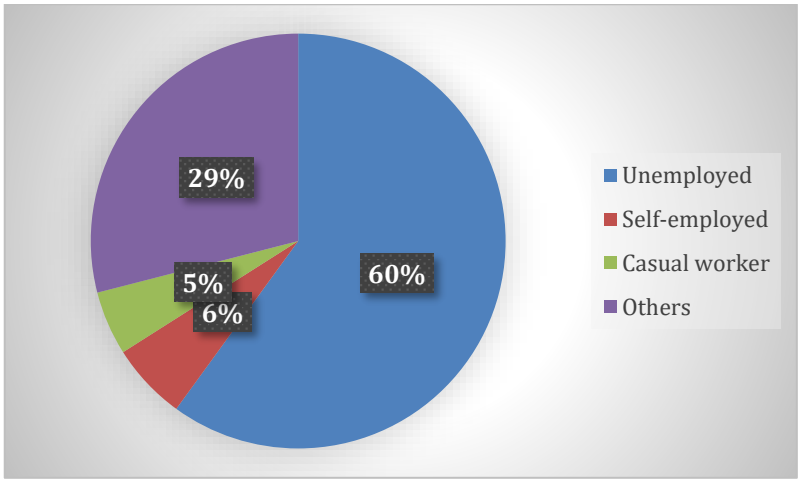


Figure 4.14: Number of working hours per day

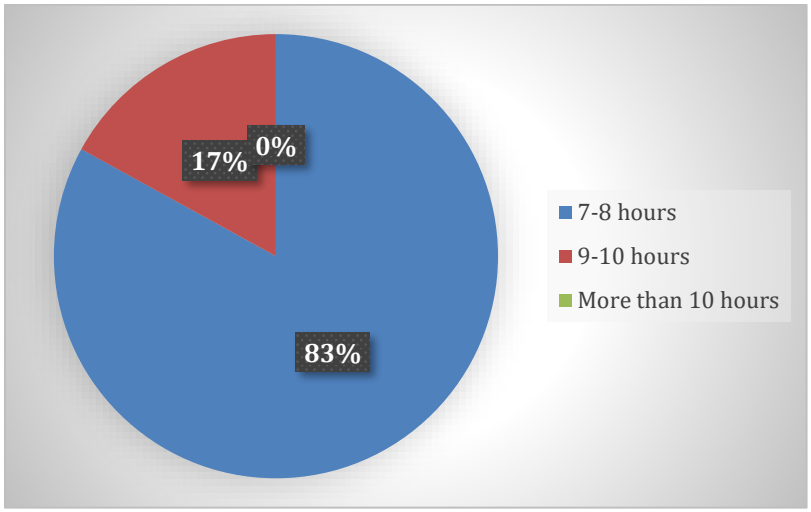


Figure 4.15: Reasons for choosing Job

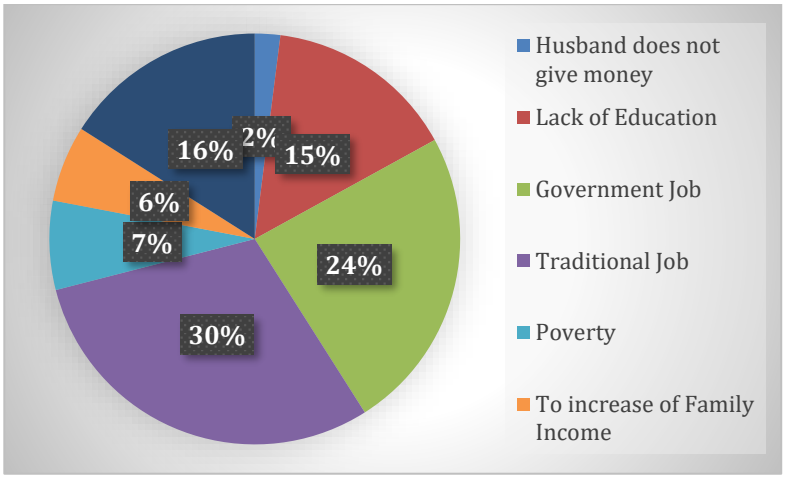


Figure 4.16: Nature of work performed by women sanitation workers

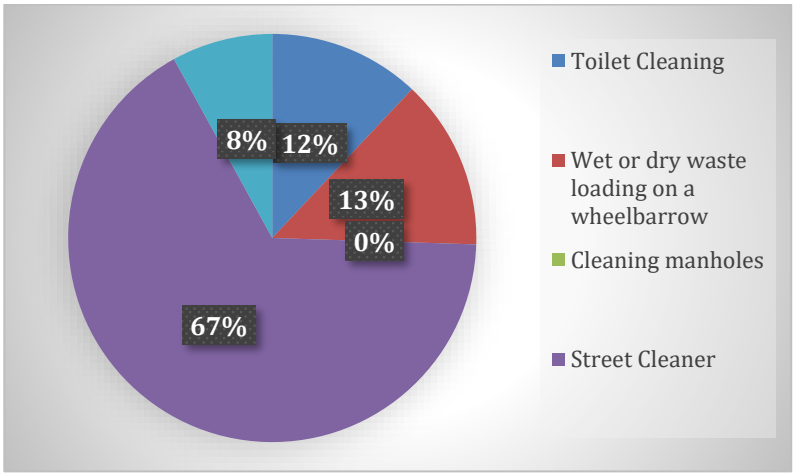


Figure 5.1: Work-related health problems

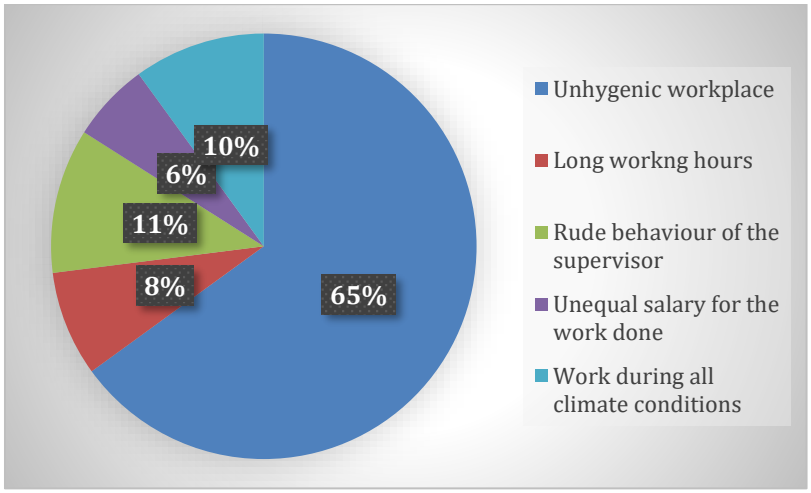


Figure 5.2: Disease

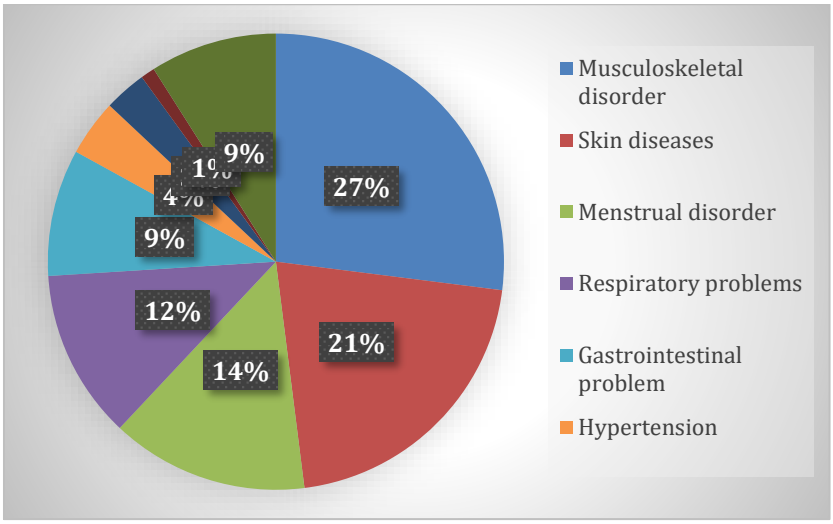


Figure 5.3: Frequency of illness

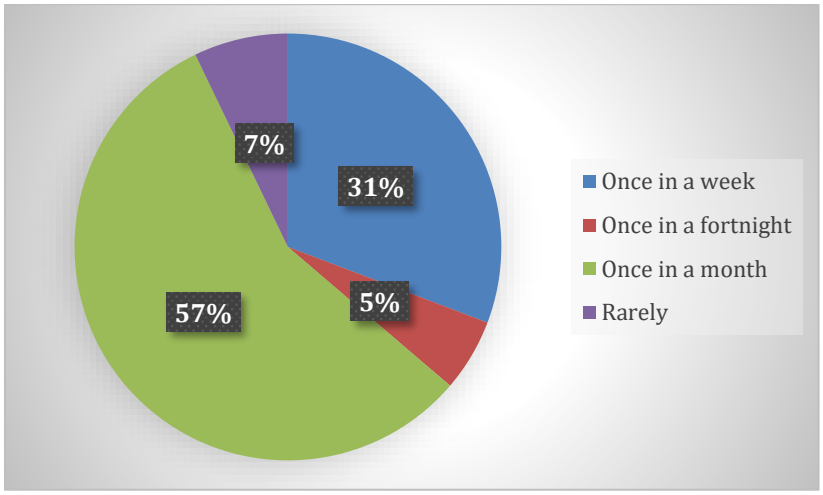


Figure 5.4: Preference of getting medical treatment

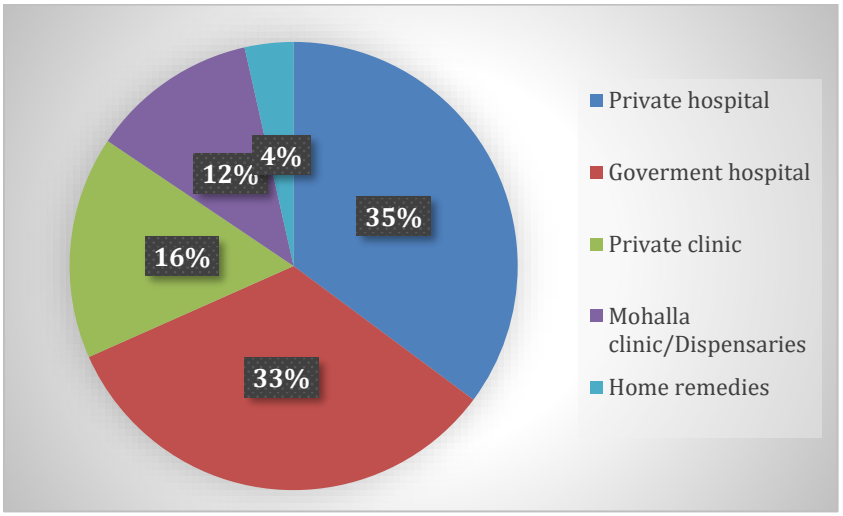


Figure 5.5: Average monthly expenditure of respondent

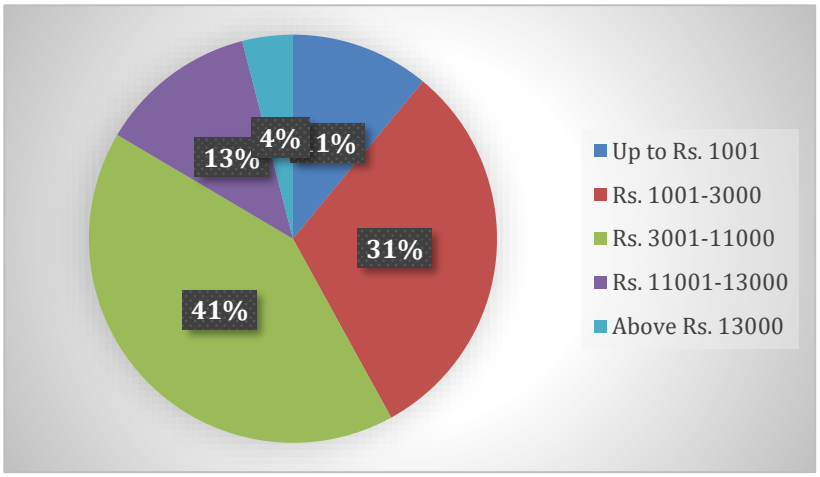


Figure 5.6: Availability of personal protective equipment

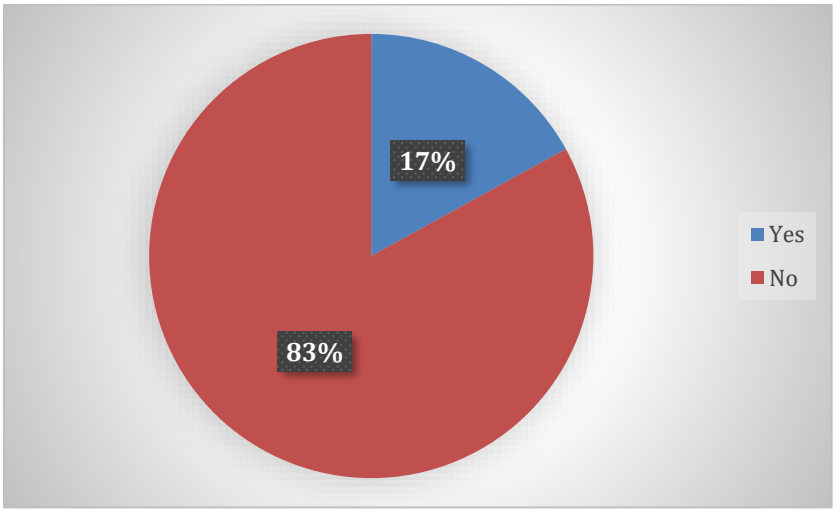


Figure 5.7: Proper changing room

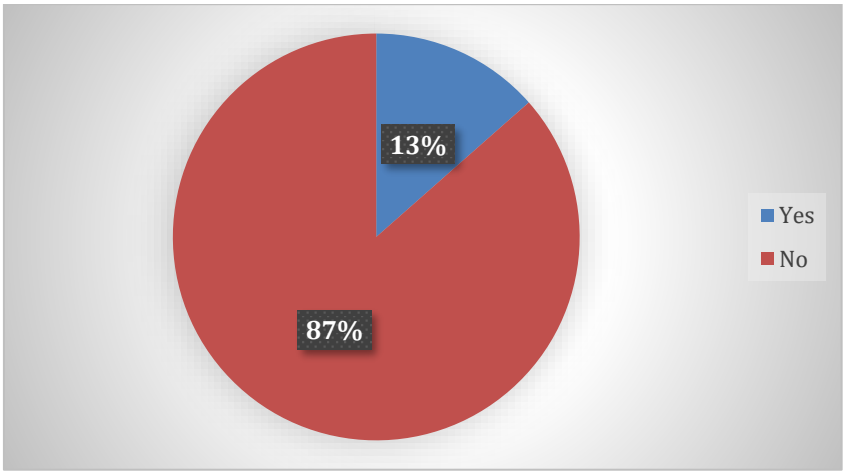


Figure 5.8: Free medical health check-up

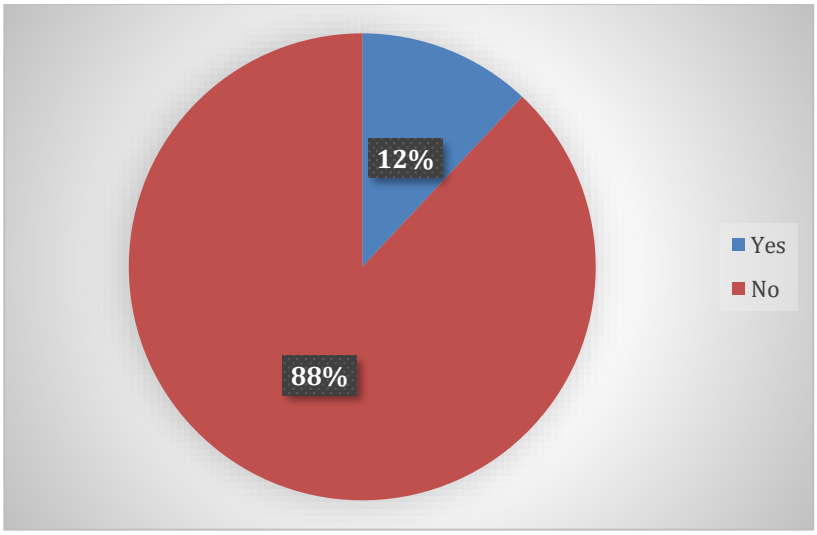


Figure 5.9: Decision making for medical treatment

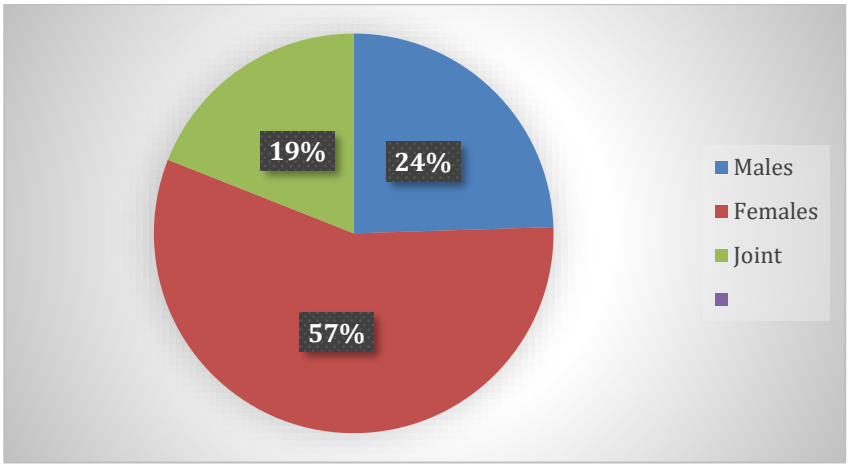


Figure 5.10: Health beneficiary card

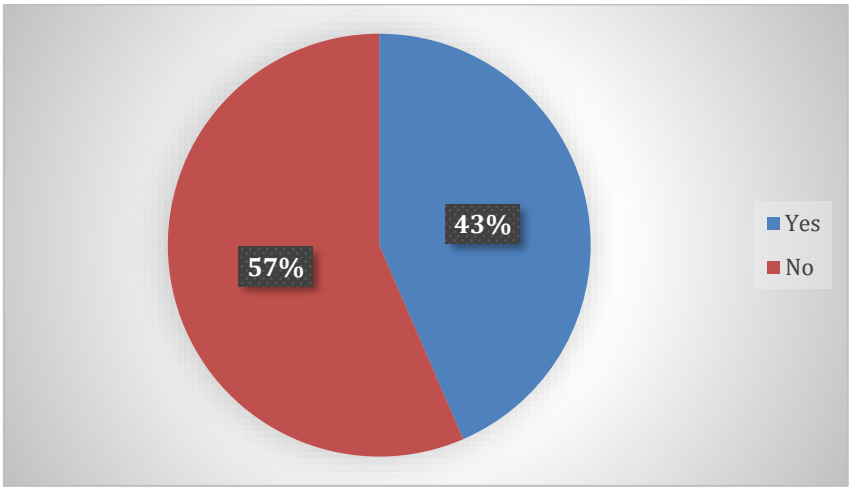


Figure 5.11: Availability of leave facility in the job

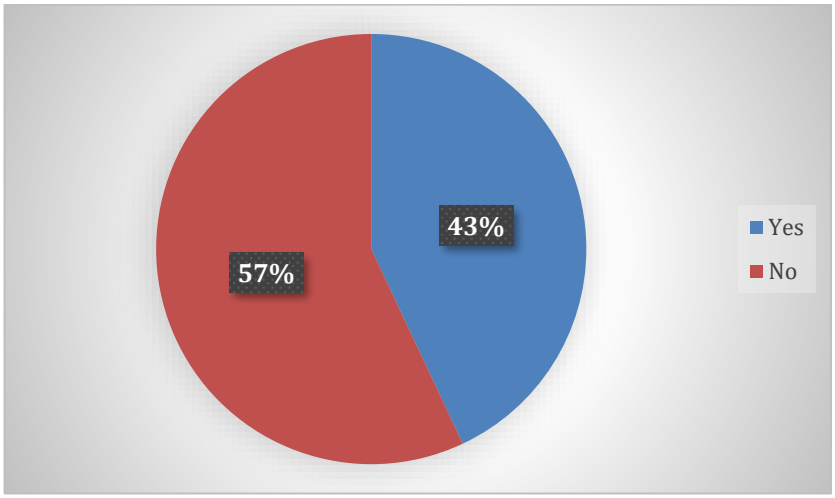
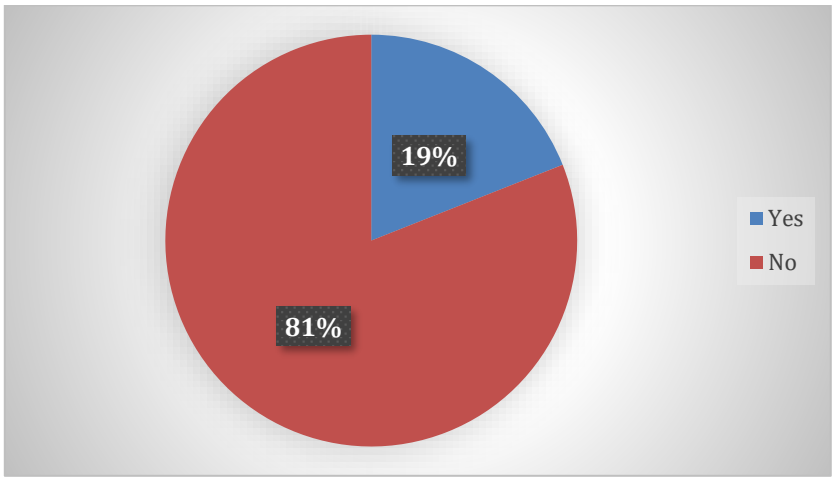


Figure 5.12: Level of Job Satisfaction



APPENDIX C

From the field……..