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Review article

Sanitation

### The development of improved sanitation in india for rural areas

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#### ABSTRACT

The present study indicates that the rural area or a country side is a geographic area that is located outside towns' cities. Typical rural areas have a low population density and small settlements. Agricultural areas and areas with forestry typically are described as rural. Basically the rural sanitation was started 1986 and studied done by 1996-97 and it has the meaning by which the health of people and the cleanliness of home and cities are managed. It was one of India's first efforts to provide safe sanitation in rural areas. In 1999, a restructured Total Sanitation Campaign (TSC) was initiated to create supply-led sanitation by promoting local sanitary marts and a range of technological options. Historically, rural health has focused more on infrastructure: facilities, providers, services, and programs available to the public (all with quality, access, and cost implication) – in the ACA world more emphasis on population health, but infrastructure is still critical as it is the pathway to achieve better population health. So present study investigates the Accelerate sanitation coverage in rural areas. Take the scheme beyond rural households to rural schools and nursery schools. Focus on intensive education and awareness campaigns to ensure that people understand the need for safe sanitation. The last modification of the scheme happened in 2012 (Nirmal Bharat Abiyam). Nirmal Bharat Abiyam the schemes revised target for reaching total sanitation was changed from 2012 to 2022. The census 2011 data on rural sanitation coverage was a reality check to the existing understanding that the governments effects.

**Keywords:** Accelerate sanitation coverage in rural areas. In this article, learn about rural health has focused more on infrastructure: facilities, providers, services, and programs available to the public (all with quality, access, and cost implication).

#### INTRODUCTION

##### Rural area

Rural area or a country side is a geographic area that is located outside towns' cities. Typical rural areas have a low population density and small settlements. Agricultural areas and areas with forestry typically are described as rural.

##### What is rural sanitation?

Sanitation is defined as the means by which the health of people and the cleanliness of home and cities are managed. Rural sanitation was started 1986 and studied done by 1996-97.

The Central Rural Sanitation Programme, which was started in 1986, was one of India's first efforts to provide safe sanitation in rural areas. This programme focused mainly on providing subsidies to people to construct sanitation facilities<sup>1</sup>. However, a study done by the government in 1996-97 showed that it was more important to raise awareness about sanitation as a whole rather than to just provide subsidies for construction. This understanding marked the first shift in the programme. In 1999, a restructured Total Sanitation Campaign (TSC) was initiated to create supply-led sanitation by promoting local sanitary marts and a range of technological options.

### ***What is non- urban areas health?***

Rural health observing on population health and improving health status.

Health outcomes of a group of individuals, including the distribution of such outcomes within the group”Dr. David Kinding, what is population health?

Rely on social determinants of health and their impact on the population (health care system, health behaviors, socio-

economic factors, physical environment.-drivers of health policy (Better Health, Better care, and lowered cost-3 Aims)<sup>2</sup>. Historically, rural health has focused more on infrastructure: facilities, providers, services, and programs available to the public (all with quality, access, and cost implication) – in the ACA world more emphasis on population health, but infrastructure is still critical as it is the pathway to achieve better population health.



### ***Types of sanitation:***

- Basic sanitation.
- Container-based sanitation.
- Community-based sanitation.
- Dry sanitation.
- Ecological sanitation.
- Emergency sanitation.
- Environmental sanitation.
- Faecal sludge management.
- Improved and unimproved sanitation.
- Lack of sanitation.
- Onsite sanitation or non-skewered sanitation system.
- Safely managed sanitation.

### ***Why sanitation important:***

- Sanitation is important for the following reasons health
- Convenience.
- Public health.
- Privacy.
- Dignity.
- Economic benefits.

### ***Why sanitation and hygiene:***

25 lakhs diarrhea deaths globally & 6 lakhs in India alone.  
60,000 roundworm, 65, 000 hookworm deaths.  
More than 1600 children under the age of 5 die daily due to diarrhea and other sanitation related preventable diseases.  
Contamination by human excrement puts at risk both toilet users as well as non toilet users.

### ***Impacts of poor sanitation:***

Open defecation is one of the main causes of diarrhea, which results in the deaths of more than 75000 children under age 5 every year.

Every 20 seconds a child dies as a result of poor sanitation.

80 % of diseases in developing countries are caused by unsafe water and poor sanitation, including inadequate sanitation facilities.

The practice of good hygiene, and a safe water supply could save 1.5 million children a year.

### ***Sanitation and health:***

Open sanitation plays a primary role in polluting water source (both under and over ground) exposing communities' dependent on these sources to several health hazards.

It is responsible for spread of air and developing vectors borne diseases.

### ***Sanitation and women:***

Practice of open defecation exposes women to risks of sexual assault. Women often wait for darkness to descend before venturing out to relieve them. Holding in for long periods and adversely impacts health.

### ***Sanitation education:***

Girls are reluctant to attend school, and parents are disinclined to send them, if there are no safe, private toilets for them. Many girls are forced to miss classes during their menstrual cycle.

### ***Sanitation and productivity:***

The economic deprivation of the urban poor increase manifold when healthcare expenses and the cost of the lost potential due to sickness arising from inadequate sanitation.

### ***Aim and objectives***

1. Accelerate sanitation coverage in rural areas.
2. Take the scheme beyond rural households to rural schools and nursery schools. Here again, the emphasis was placed on promoting good hygiene practices.
3. Promote cost-effective and appropriate technologies.

4. Through all the above, improve the health and quality of life in rural areas.
5. Focus on intensive education and awareness campaigns to ensure that people understand the need for safe sanitation.
6. The last modification of the scheme happened in 2012 (Nirmal Bharat Abiyam).
7. Nirmal Bharat Abiyam the schemes revised target for reaching total sanitation was changed from 2012 to 2022.
8. The census 2011 data on rural sanitation data on rural sanitation coverage was a reality check to the existing understanding that the governments effects.
9. Almost 600 million Indians living in rural areas defecate in the open.
10. Indian governments swachh bharat mission grameen (SBM (G)) the rural clean Indian mission plans to eliminate open defecation by 2019, SBM (G) is time bound with a stronger results oriented targets.
11. TheWorld Bank has provided India with a US \$ 1.5 billion loan.
12. Areview of the World Bank's water and sanitation program (WSP) 'S previous engagement in India's rural sanitation sector.

#### ***What are some important rural health problem?***

- ❖ Access to and availability of care.
- ❖ Quality of care (inclusive of patient safety).
- ❖ Health reform (cost, insurance, how we access care, community role).
- ❖ Community and economic development –community availability.
- ❖ Health information technology/tele-health (number of technology include paper, computer, mails, telephones).
- ❖ Emergency medical services- EMS, ambulance, quick responses units.
- ❖ Networks- rural/ urban, primary care/public health, acute/public health.
- ❖ Financial concerns facing rural hospitals and health systems.
- ❖ Health distinction (inclusive of health conditions behavior risks).
- ❖ Health work force (force of work due to health problems).



#### ***Building healthier rural communities means:***

- ❖ Underlying goal within health reform of the delivery system.
- ❖ Healthier population/ clients / patients.
- ❖ Sense of interdependency and equity.
- ❖ Requires sincere community engagement.
- ❖ Local leaderships from health sector and other community sectors-partnerships and community combinations greater individual responsibility with in the community for one's health but with community structures for support and guidance.

#### ***A healthy community is a:***

- Dynamic community.
- Changing community.
- Engaged community.
- Fair community

#### ***In a health community:***

- The goal is the overall health of the community.
- Diversity is valued.
- People work together.
- People feel included, respected, and trusted.

#### ***Components of personal hygiene:***

- ❖ Personal hygiene is a concept that is commonly used in medical and public health practices. It is also widely practiced at the individual level and at home. It involves maintaining the cleanliness of our body and clothes.
- ❖ Personal hygiene is personal, as its name implies. In this regard, personal hygiene is defined as a condition promoting sanitary practices to the self. Everybody has their own habits and standards that they have been taught or that they have learned from others.
- ❖ Generally, the practice of personal hygiene is employed to prevent or minimize the incidence and spread of communicable diseases.

#### ***Personal hygiene has many components, following these components one may be able to advance his/ her hygiene he following some:***

- ❖ Face hygiene.
- ❖ Fingernail & toenail hygiene.
- ❖ Ear hygiene.
- ❖ Foot hygiene.



- ❖ Environmental cleanliness.
- ❖ Menstrual hygiene.
- ❖ Clothes hygiene.
- ❖ Hair hygiene.

#### **Hands hygiene:**

- The cleanliness of our hands is very important in all our daily activities. In our normal activities our hands frequently get dirty.
- There are many communicable diseases that follow the route of faeco-oral transmissions.
- Hand hygiene plays a critically important role in preventing this transmission.

#### **Hand washing technique:**

- First wet hands with clean water and lather with a bar of soap.
- Next rub hands together vigorously and scrub all surfaces up to your wrists.
- Clean under fingernails.
- It is the soap combined with the scrubbing action that helps dislodge and remove germs.
- Rinse hands with clean running water (pour from a jug or tap).
- Clean sand with water can be for hand washing to help to rub of dirty.



#### **Nail hygiene**

- Toe and fingernails need regular maintenance because dirt accumulates under the nails, from where, it gets inside the body through food or by touching your eyes, nose, and mouth.
- A nail is hard tissue that constantly grows. Long fingernails tend to accumulate or trap dirt on the underside.
- Clip nails short along their shape but do not cut them so close that it damages the skin. Razor blades and fingernail cutters or scissors are used to cut nails. Nail cutters should not be shared with others.

- The result is tooth decay. In addition, unpleasant smelling breath (halitosis or stinking odor), teeth and gum infections could be a result of poor oral hygiene.

#### **How to maintain oral hygiene**

- Brush teeth at least two times a day- once in the morning and once before bed time.
- Use an antibacterial mouth wash.
- To clean the surface of tongue.
- Visit a dentist every 6 months for a checkup.

#### **Face hygiene**

- The organic substance of the eye discharges can attract flies and this is dangerous because the fly is a carrier (vector) of trachoma and conjunctivitis.
- A person should wash their face every morning in order to remove all dirt that they have come all day. Children are advised to wash their face frequently. Never share your face towel with others.

#### **Body hygiene (skin care)**

- The body has nearly 2 million sweat glands.
- Moistened and dried sweat and dead skin cells together make dirt that sticks on to the skin and the surface of underclothes. The action of bacteria decomposes the sweat, thereby generating bad odor and irritating the skin.
- This is especially observed in the groin, under arms and feet, and clothing that has absorbed sweat. Skin infection such as scabies, pimples and ringworms, are results of poor hygiene.
- The first task in body hygiene is to find water, soap and other cleansing materials.
- The genitals and anal region need to be cleaned well because of the natural secretions of these areas.

#### **Oral hygiene**

- The mouth is the area of the body most liable to collecting harmful bacteria and generating infection.
- This process leaves food particles (food debris) that stick to the surface of our gums and teeth.

- Dry the body with a clean towel after through rinsing.
- Change into clean underwear after a bath. Changing sweat soaked cloths after each bath is advised.

Cleaning the ears after every bath is also necessary. Avoid sharing soaps and towels because of the danger of cross infection.



### Hair hygiene

- The scalp (the skin covering the head) also has numerous sweat glands after and is a surface of the accumulation of dead skin cells.
- Poor hair hygiene could cause dandruff and skin infection such as 'Tinea Capitis' (a rash caused by a fungal infection).
- Hair cleaning is important to ensure it stays clean, healthy and strong.

### Ear hygiene

- Ear wax accumulates in the ear cannal that leads from the outer ear to the ear drum. As the secretions come out of the ear it collects dust particles from the air.
- Do not reach further than can with little finger into ear.
- Putting in hairpins, safety pins or blunt -edged things for cleaning purposes might harm the ear.
- If feel wax has accumulated and is plugging ears and interfering with hearing, home remedy to remove ear wax.

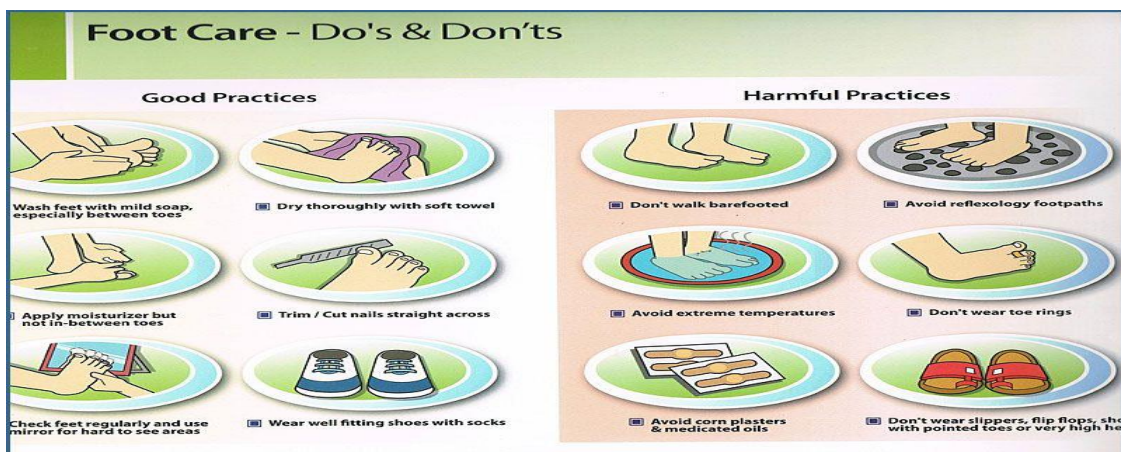


### Foot hygiene:

- Our feet sweat as we walk day and night and the sweat accumulates on all foot surfaces and between the toes. The sweat may stain the shoes and can produce a nasty.
- As well as bacteria, sweat also encourages fungal growth between the toes. This is called athlete's foot. The symptoms of athlete's foot are scaly skin

and sore or blisters, which start between the toes but can often spread to the soles of the feet.

- The feet should be washed daily, or at least twice weekly.
- It can easily be prevented by wearing shoes at all times but, if someone is affected, careful washing and drying of the feet is an important part of the treatment.



### Clothes hygiene

- We usually have two layers of clothing. The internal layer is underwear (or underclothes) such as pants, vest and T-shirt.
- Underwear must be washed more frequently than the outer layer of clothing, clothes hygiene is an important aspect of one's dignity.

- Changing used clothes for clean ones every day is recommended. Washing dirty clothes requires adequate clean water, detergents (solid or powdered soap) and washing facilities.
- Boiling water or insecticides can be used to destroy clothes infestation.



### Menstrual hygiene (personal hygiene for women):

1. The vagina is able to clean itself; no special care is needed other than washing the external genitals.
2. Washing the outer genital area with clean water must be a daily practice. Change tampons and sanitary napkins or pads regularly.

3. Always wash hands before and after handling a tampon or pad. Clean and soft cloths of dirty cloths must be discouraged.
4. Menstrual blood- absorbing items must be properly disposed of in a burial pit or other appropriate methods.





### ***Environmental hygiene:***

1. Environmental health is broader than hygiene and sanitation; it encompasses hygiene, sanitation and many other aspects of the environment that are not included in this module such as global warming, climate change, radiation, gene technology, flooding and natural disasters.

2. It also involves studying the environmental factors that affect health.
3. The world health organization's definition is as follows: environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviors.



### ***Benefits of developing sanitation***

- Reducing the spread of intestine worms, schistosomiasis, and trachoma, which are neglected tropical diseases that cause suffering for millions.
- Benefits of improved sanitation extend well beyond reducing the risk of diarrhea. These include:
- Reducing the severity and impact of malnutrition;
- Promoting the dignity and boosting safety, particularly among women and girls;
- Reducing the spread of antimicrobial resistance;

### ***Factors affecting sanitation and hygiene practice***

#### ***Individual factors***

- Privacy.
- Gender.
- Family education/orientation.
- Media exposure (i.e., TV program, commercial advertisement).
- Knowledge/ awareness (i.e., benefit of sanitation and hygiene practice).
- Perceived health benefits.

- No supply of hand washes products.
- Unstable water supply.

### ***Rural area in India***

- Rural areas are also known as the countryside or "village" in India. It has a very low population density. In rural areas, agriculture is the chief source of livelihood along with fishing, cottage industries, pottery etc.
- Almost every Indian economic agency today has its own definition of rural India, some of which follow: according to the planning commission, a town with a maximum population of 15,000 is considered rural in nature. In these the panchayat makes all the decisions. There are five people in the panchayat.
- The national sample survey organization (NSSO) defines "rural" as follows:
- An area with a population density of up to 400 per square kilometer, Villages with clear surveyed boundaries but no municipal. A minimum of 75% of male working population involved in agriculture and allied activities.
- RBC define rural areas as those areas with a population of less than 49,000 people. It is said that the rural areas house up to 70% of India's

#### ***Contextual factors***

- Dirtiness, lack of cleanliness, maintenance, bad odor.

population. Rural India contributes large chunk to Indian's GDP by way of agriculture, self-employment, services, construction etc., As per a strict measure used by the national sample survey in its 63<sup>rd</sup> round, called monthly per capita expenditure, rural expenditure accounts for 55% of total national monthly expenditure.

### **Rural sanitation in India**

- The concept of sanitation broadly includes liquids and solid waste disposal, personal and food-related hygiene and domestic as well as environmental hygiene.
- It would not be wrong to say that it hardly describes the sanitary conditions as they obtain in the villages of India.

- Rural sanitation figures prominently in the national agenda for governance. At present the extent of sanitation coverage in India is around 16 % of all rural household.
- The state government implements the rural sanitation programme under state sector minimum need programme (MNP). The central government supplements their efforts providing financial and technical assistance through the centrally sponsored Rural Sanitation Programme (CRSP).

### **Development of rural sanitation:**

#### **Rural areas**

A rural area or a countryside is a geographic area that is located outside towns and cities. Typical rural areas have a low population density and small settlements. Agricultural areas and areas with forestry typically are described as rural.

## **PLANNING FOR RURAL SANITATION**



- The Environmental Hygiene Committee set up by the Government of India in 1948 recommended that 90 percent of the country's population should be covered with water supply and sanitation facilities within a period of 40 years for which the national programme was to be initiated in the year 1954; sanitation programme was introduced in the health sector.
- The Government launched the national water supply and sanitation programme as part of the first Five Year plan. The first five years plan had a provision of Rs.6 crores for rural water supply and sanitation programmes.
- The promoting sanitation in rural areas of Indian states was first developed during the International Water Supply and Sanitation Decade (1980-1990) with a view to provide the population with protected water supply and basic sanitation facilities over a period of ten years.
- The year 1985 witnessed the transfer of Rural Sanitation Programme to the Department of Rural Development from the ministry of urban development.

- Rural sanitation was made a component of 20-point programme and was also included under the Minimum Needs programme (MNP) in 1987.
- In 1986, a programme launched to construct one million sanitary latrines to be provided in houses of SC/ST population under Indira Awaas Yojana and to provide 2,50,000 additional latrines to health centres, schools, panchayat ghars and anganwadis under NREP and RLEGP. Rural sanitation programme was also added to the sector MNP from 1987-1988.

### **MEASURES TO IMPROVE SANITATION IN RURAL AREAS:**

- Some of the important measures needed for sanitation in rural areas of India are as follows:
- People should be made conscious about the problem of poor sanitation through publicity and sanitation education.
- The appropriate like municipal authority's town planners, Government etc. should pay more attention towards sanitation.
- Waste stabilization ponds should be created as a low cost and low maintenance means of sewage treatment.



well situated to small town and villages of warm climates.

- The poorer communities should adopt incremental sanitation system where improvements are introduced gradually and the users themselves handle much of the upgrading and maintenance.
- Open defecation should be avoided along road sides, boundary of ponds, river side's etc. by constructing a ventilated improved pit latrine (VIP latrine).
- Bleaching powder or chlorine tablets should be added regularly to the village wells.

## AUTHORS CONTRIBUTION

All authors are contributing equally.

## CONFLICT OF INTEREST:

No conflict of interest.

## CONCLUSION

Personal hygiene is necessity for our daily activities. It is a very important for the protection of our health and help to prevent the spread of communicable affect health. Personal hygiene applies to all parts of the body, but hand hygiene is probably the most important for public health. The procedures that apply in personal hygiene (such as handwashing and oral hygiene) need to be followed strictly to gain the best results. The provision of hygiene information first impacts on knowledge and then practice. The promotion of the personal hygiene must be well planned in order to bring positive changes.

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