



Environmental Sanitation and Control Measures

(Synopsis of Talk, given by Clarence E. Calbert—*Sanitarian—TCM*).

Section -1

A. The Need for Environmental Sanitation in Village Areas.

1. To promote health, welfare and comfort of villages, without which interest will soon depreciate.

2. To prevent specific diseases such as typhoid fever, amoebic and bacillary dysentery, malaria, cholera and many others. The majority of the diseases affecting the village people are those that can be controlled by good sanitary measures.

2. A well developed sanitation programme prevents loss of life, loss of savings, loss of time for work, and much misery and suffering.

4. An effective village sanitation programme is necessary to prevent epidemics of cholera, plague, etc. from spreading to larger areas of the population.

5. Eighty percent of the people of this country live in villages. Statistics show that infections of more or less preventable diseases take their greater toll from the village people.

6. A healthy people is a nation's most important fundamental asset.

B. The Purpose of This Discussion.

1. To acquaint the officers with the various phases of environmental sanitation, which should become their responsibility in community development.

2. To create a desire to eliminate *pain* and *misery*. These are ancient and direct enemies of every man, woman and child. In addition to this sympathetic consideration for the individual, there are important social and economic aspects of health which more than justify all the efforts you can make in ameliorating conditions.

3. To understand that a healthy, productive farmer is always better than a sick one, and increased health contributes to increased food supply.

4. To realize that in most cases in village sanitation, human ingenuity must often substitute for modern equipment.

5. To learn the value of giving aid and advice on specific health problems.

C. Specific Problems and Their Control.

1. Water Supply and Methods of Safeguarding it

The most widely used source of water in villages is the well. The commonest defect noticed is the poor covering or complete lack of covering. This condition will allow waste water and possibly contaminated material to enter the well. Poor curbing is another defect. Curbing which does not extend above the ground surface and that is made of pervious material, such as carelessly laid brick or badly

cracked concrete will allow sewage or badly polluted water into the well. The use of rope and bucket, while there has been no satisfactory solution to offer in such cases where necessity forces its use, is strongly condemned. It must be recognized that both the rope and bucket enter the water that is later drawn for use, yet they are touched by the unwashed hands of persons who are coming directly from farm and stable work. Further, this person may be a typhoid or cholera carrier. Therefore, this is an ever-present danger. In addition, we must consider that to insure adequate safety in well water supply, the following precautions must be taken:

(a) *Distances from Sources of Contamination:*

No well should be located within 50 feet of latrine or cesspool. So far as practical, it should not be located at the foot of a hill, if latrine or cesspool are located above.

(b) *Construction Details:*

In wells of all types, casing should extend at least six inches above the graded upland surface. A casing of impervious cement should extend to a depth of at least 10 feet below the ground surface. This will not only prevent surface drainage but will keep rats, or other ground burrowing animals, from polluting the water.

(c) *Well Covers and Seals:*

No well can be safe unless it is covered. Every well should be provided with an overlapping, watertight cover. Its surface should be sloped to promote cleanliness by diversion of waste water away from the well. The cover protects water by keeping out dust, dirt and animals.

(d) *Disinfection of Wells:*

There are a number of ways of disin-

fecting wells, but the cheapest and most practical method is the use of chlorinated lime, sold commercially as calcium hypochlorate. The lime solution should be applied in amounts sufficient to give a chlorine residue. It must be borne in mind that if the raw water is subject to contamination, or is potentially dangerous, only continuous, uninterrupted disinfection will assure its safety.

Amounts of Chlorinated Lime (25% available Chlorine) Required to Provide 50 Parts Per Million of Chlorine

<i>Capacity of Well (in gallons)</i>	<i>Chlorinated Lime (pounds or ounces)</i>	<i>Volume of Water (in gallons) to be used in preparing stock solution</i>
500	15 oz.	5
1000	1 lb 14 oz.	10
2000	3 lb 12 oz.	15
3000	5 lb 10 oz.	20

(e) *Emergency Disinfection:*

There may be times when it is necessary to use water for drinking when it is impractical to disinfect the entire well. The following procedures may be used in this emergency:

- (1) Prepare a stock solution by dissolving one heaping teaspoonful of chloride of lime to two gallons of water. To disinfect water for drinking, add the stock solution to it in the ratio of 1 part to 100 parts of water. Allow 30 minutes to disinfect before use.
- (2) Iodine may be used by adding 8 drops of tincture of iodine per gallon.
- (3) Boiling water for five minutes is a simple and effective method for emergency treatment.

(To be continued)

★

★

★

A School Makes Progress

The School of Nursing, Methodist Hospital, Nadiad

Our School of Nursing is now well on in its third year of being established, and as we try to evaluate the progress made during the year we cannot help but recognize the vision, love, gifts, faith and work of innumerable individuals. The teachers in schools who have helped in the preparation of our students who are all High School pass. The generous gifts from people who were prompted by Christian love to share. The joining to our faculty of Miss M. Precise who comes to us with many years of experience in the Butler Memorial Hospital and School of Nursing. Her warm personality has added the needed touch with patient, student and staff. The joining of Miss E.P. Overby who is now with us with headquarters right in the hospital. Her contribution as teacher of Psychology, Health and Hygiene and with her counselling helps in the effort to maintain a higher standard of nursing and in preparing nurses who will be equipped to take a reasonable share of responsibility in the Health Program of the Second Five Year Plan.

Through a very generous gift of the U.N.I.C.E.F., our School of Nursing received a complete set of anatomical charts, models, dolls and instruments which add greatly to the teaching facilities of the school.

The total enrollment of Nursing Students is now thirty. Last August our second group appeared for their first Bombay Council examinations with the result of cent per cent passes. We are proud to have our school listed with three other Schools of Nursing who had 100% passes for this examination.

Much credit goes to our Sister Tutor, Miss Rose Benjamin who through her tireless efforts helped the students make this record.

Miss Muriel Bailey continues as director of Religious Education, and

mothers the nurses who live and study in our beautiful Nurses Home.

The students have the responsibility of arranging evening vespers which are conducted in English. They also have other extra-curricular activities such as painting with water colours, needle work, out-door sports, indoor games and have given numerous skits with music both instrumental and singing.

Mrs. I. A. Chitambar directs their singing for any special occasion including caroling at Christmas time.

November 16 marks the day when the fourth capping service will take place in the lovely Chapel of the Nurses Home. It is a ceremony of dedication and one experiences a feeling of solemnity and gladness at such an occasion.

The nurses of our very first class who now are seniors, are now taking their turn at the second term in the operation theatre for further experience in surgical nursing and operation room technic. They are highly privileged to work under our Dr. I. A. Chitambar whose fine surgery has just recently earned the degree "Fellow of The American College of Surgeons."

Two of our ward supervisors have been awarded scholarships for refresher courses in Ward Supervision by W.H.O. at the J.J. Hospital, Bombay. This will aid in raising the standards of nursing in the effort to create a better situation for the student who learns and serves the patient on the ward.

We would not fail to mention the many general improvements in and about the hospital by the administrative department. Also a general face-lifting of building and grounds. To see some fifty young trees spring up like Jack's Bean Stalk has been a phenomenal wonder to all. All of this and numberless factors have added to the pleasure of patient, faculty and student.

The new year of 1956 will bring our first class to the end of their final year of study with us. As we enter this new door may we take with us this promise "And it shall be given unto you"

Luke 11-9

T. LORENZ.