

drinking among males aged 15 to 64 runs as high as 39 per cent in Bogotá, with the highest proportion of heavy drinking occurring in the 30-39-year old group. Further, between 35-47 per cent of men in Bogotá, Caracas, Santo Domingo, and San José reported having drinking-related problems, particularly problems with interpersonal relationships (family or friends) and with the expenses involved. Only 6-7 per cent of the women reported such problems. In general, men drink about three times as much as women and are far more likely to be heavy drinkers experiencing social, medical, or economic problems related to their drinking.

The study pointed out that there is a major need for treatment and prevention programs oriented toward male problem drinkers. Since the majority are employed and in the most productive period of their working life, programs operated in the workplace may be most effective.

Although a number of variables were examined for their relationship to drinking patterns (i.e., age, socio-economic status, migration, employment, education, attitudes, etc.), the only strong and consistent relationship with heavy and/or problem drinking was found with a

variable which measured the degree to which alcohol is present in one's environment. That is, heavy drinking was more prevalent among persons who reported having heavy drinking friends and/or persons who use alcohol on most social occasions. This finding is consistent with the results of several other studies which found that the degree of overall availability of alcohol in a society seems to have an independent effect on consumption.

In general, then, as has been suggested in recent WHO reports, preventive efforts might well be most effective when aimed at reducing overall availability of alcohol in the population. While legislative action would seem indicated, it should be remembered that this must be accompanied by educational and promotional programs aimed at changing social drinking habits and attitudes over the long term.

A monograph based on this study is scheduled for publication and release in late 1981.

(Source: Mental Health Program, Alcohol and Drug Abuse, Non-Communicable Diseases, Division of Disease Prevention and Control, PAHO.)

Hospital Infections

Hospital-acquired infections¹ are at present one of the leading causes of complications in hospitalized patients and account for a substantial increase in their mortality (in many cases they are the direct cause of the patient's death and therefore the responsibility of the institution) and in the cost of hospital care and are an additional health hazard for the community.

Although some success has been achieved in controlling hospital infections, the advances made in biomedical technology and therapeutics are producing a large number of very susceptible patients, which is aggravated by the appearance of certain pathogenic organisms with resistance to antibiotics.

¹A hospital-acquired infection may be defined as "any clinically recognizable microbiological disease that affects the patient as a consequence of his being admitted to hospital or attending for treatment, or the hospital staff as a consequence of their work, whether or not the symptoms of the disease appear while the affected person is in hospital." WHO, European Series No. 4, 1978.

Recent studies in Latin America² show that infection rates range between 5 and 70 per cent. The major impact is on human health and is shown by a high case-specific mortality rate, especially in the child population. In addition, the effects on the cost of hospital care are enormous.

According to recent data from Latin America, annual hospital care costs for infectious cases were approximately US\$196 million, on the basis of an acquired-infection rate of 10 per cent of annual discharges, an average hospital stay of 10 days, and costs of approximately US\$20 per day/bed. At present it is estimated that this figure has tripled.

In the United States, 70 hospitals in 31 states (that participated in a National Nosocomial Infections Study)

²Pan American Health Organization. Multi-disciplinary Group on the Control of Hospital Infections in Latin America and the Caribbean. *Bol Ofic Sanit Panamer*, Vol. LXXXVIII, No. 6, June 1980.

reported in 1977 that, of the 1,281,099 patients hospitalized and discharged in that year, 43,774 acquired infections in hospital.³

The importance of this problem has led the national authorities of the countries of the Americas to undertake studies on programs for the control of hospital-acquired infections. In the United States, the Centers for Disease Control (CDC) initiated a study on the efficacy of nosocomial infections control (SENIC project) in 1974.⁴ The three principal purposes of this project are: (1) to determine whether the execution of programs for the surveillance and control of hospital infections has reduced the rate of those infections; (2) to describe the present status of those programs and hospital infection rates; and (3) to demonstrate the relationship between the characteristics of the patients and the hospitals participating in the program as well as the changes in hospital infection rates. Data have already been collected from a representative sample of hospitals in the country and are being analyzed in order to devise the most effective strategies for controlling hospital infections and determining the aspects that require further research.

In September 1979 a multidisciplinary group met in Guatemala City to prepare a report reflecting the ideas, needs, and problems connected with the establishment of a hospital infections control program in Latin America and the Caribbean and to formulate pertinent recommendations.

The group identified a number of general and specific problems that hinder the conduct of such programs. Because of unsatisfactory integration of the health services with the community, lack of resources and limited staff training are the fundamental constraints on the detection, prevention, and control of hospital infections. This lack of familiarization with and training in programs for the control of these infections exists at all levels and, together with the lack of personnel, is the principal obstacle to the solution of the problem.

In the field of education, there is no clear concept of what constitutes a hospital infections control committee. The principal shortcomings are in basic aseptic procedures, use of antimicrobial and antiseptic agents, epidemiological surveillance, microbiological techniques, medical records, technical standards and procedures for patient care and treatment, sterilization, health personnel, quality control of supplies, and basic hospital sanitation.

The lack of inter- and intra-sectoral communication and coordination that characterizes some health systems also affects the efficiency of the programs.

There was general agreement in the working group that the training of personnel in epidemiology and in intra-hospital infections is very deficient. It emphasized the need for each country to prepare education plans geared to its particular hospital infection problems. So far, this type of training has not been incorporated into the general curriculum of the health team in most of the Latin American countries.

The working group was of the opinion that a proper program for the control of intra-hospital infections should include the following essential components:

- Infections control committee.
- Epidemiological surveillance system.
- Methods of isolating patients with communicable diseases.
- Health programs for employees.
- Efficient microbiological services.
- Educational programs and personnel training.
- Methods of environmental surveillance (cleanliness, vector control, etc.).
- Coordination with the community.

The group stated that the control of intra-hospital infections is a priority task in the health plans of the countries of the Americas and recommended that the governments adopt the following measures:

1. Consider the control of hospital infections a strategically valid tool for the proper administration and organization of hospitals.
2. Assign importance to a program for the control of these infections at all levels of medical care.
3. Integrate these activities into health programs.
4. Promote the preparation, application, and supervision of national hospital standards.
5. Include in the budgets funds for basic multidisciplinary training in hospital infections control, at all levels.
6. Establish mechanisms for selecting human and material resources for surveillance and appoint and train personnel and provide them with the necessary instruments for carrying out these activities.
7. Convince the hospital authorities of the advantages of a personnel health program and present estimates of the savings entailed by early diagnosis and treatment.
8. Establish, whenever there are no microbiological laboratory services, mechanisms for providing this service in reference centers.
9. Promote the development and application of health care standards for hospitalized patients appropriate to each country.

(Source: Communicable Diseases Program,
Division of Disease Prevention and Control,
PAHO.)

³Centers for Disease Control. National Nosocomial Infections Study Report, 1977 (6-month summaries), 1979.

⁴Haley, R. W., D. Chuade, H. E. Freeman, and J. V. Bennett. The S.E.N.I.C. project. Study on the efficacy of nosocomial infection control (S.E.N.I.C. project). Summary of study design. *Amer J Epidemiol* 111 (5):472-85, 1980.

Bibliography

In view of the many requests from persons and institutions in the countries of the Region interested in the problem of hospital infections, a selection of the most recent publications on this subject is presented below:

- Ayliffe, G. A., J. R. Bab, L. Taylor and R. Wise. A unit for source and protective isolation in a general hospital. *Brit Med J* 2(6188):461-465, 1979.
- Brachman, P. S. et al. Nosocomial surgical infections: incidence and cost. *Surg Clin Month Am* 60(1):15-25, 1980.
- Cooke, E. M., J. C. Brayson, A. S. Edmondson and D. Hall. An investigation into the incidence and sources of Klebsiella infections. *J Hyg (Lond)* 82(3):473-480, 1979.
- Feldman, L., M. Lanson, F. Gallelli and J. E. Bennet. Surveillance of nosocomial infections by antibiotic monitoring. *JAMA* 241(26):2806-2807, 1979.
- Flournoy, D. J., H. G. Muchmore and E. B. Francis. Nosocomial infection linked to handwashing. *Hospitals* 53(15):105-107, 1979.
- Gross, P. A., H. C. New, P. Aswapokee, C. Van Antwerpen and N. Aswapokee. Deaths from nosocomial infections: experience in a university hospital and a community hospital. *Amer J Med* 68(2):219-223, 1980.
- Haley, R. W. et al. The accuracy of retrospective chart review in measuring nosocomial infection rates. Results of validation studies in pilot hospitals. *Amer J Epidemiol* 111(5):516-533, 1980.
- Haley, R. W. and R. H. Shachtman. The emergence of infection surveillance and control programs in US hospitals: an assessment, 1976. *Amer J Epidemiol* 111(5):574-591, 1980.
- Hooton, T. M., R. W. Haley and D. H. Culver. A method for classifying patients according to the nosocomial infection risks associated with diagnosis and surgical procedures. *Amer J Epidemiol* 111(5):556-573, 1980.
- Iffy, L. et al. Control of perinatal infection by traditional preventive measures. *Obstet Gynecol* 54(4):403-411, 1979.
- Kelly, J., J. Roberts and P. W. Harvey. A simple data processing system for the monitoring of cross-infection in a district general hospital. *Med Inf (Lond)* 4(1):29-34, 1979.
- Levitem, D. L. and S. T. Shulman. Multiple nosocomial infections: a risk of modern intensive care. *Clin Pediat (Phila)* 19(3):206-209, 1980.
- Pan American Health Organization. *Técnicas de aislamiento para uso en hospitales*. Scientific Publication 377, Washington, D.C., 1979.
- Ransjo, V. Attempts to control clothes-borne infection in a burn unit. Clothing routines in clinical use and the epidemiology of crosscolonization. *J Hyg (Lond)* 82(3):369-384, 1979.
- Smith, D. H. Epidemics of infectious diseases in newborn nurseries. *Clin Obstet Gynecol* 22(2):409-423, 1979.
- Wenzel, R. P. et al. Development of a statewide program for surveillance and reporting of hospital-acquired infections. *J Infect Dis* 140(5):741-746, 1979.
- World Health Organization. *Hospital-Acquired Infections: Guidelines to Laboratory Methods*. WHO Regional Publications, European Series No. 4. Copenhagen, 1978.

Reports on Meetings and Seminars

Conference on cervical cancer screening: the Pap smear

In September 1977 the United States National Institutes of Health (NIH) initiated a consensus development conference program on different technologies used in the biomedical field. These conferences consist of open-ended discussions on the usefulness, applicability, effectiveness, advantages, and disadvantages of new techniques or techniques already in use in medicine and public health. The results of these discussions are transmitted to the medical community and to the public in general for the updating and orientation of the users.

In July 1980 one of these conferences was held on the subject of cervical cancer screening: the Pap smear.

The discussions were based on the accepted definition that screening procedures apply to healthy female populations and not to women identified as patients undergoing gynecological treatment.

The members of the conference panel included epidemiologists, pathologists, obstetricians-gynecologists, prac-

ticing physicians, health scientists, a social worker, a lawyer, and consumer representatives.

As a framework for developing recommendations the panel agreed on the following operational definitions:

- A Pap smear, developed by Dr. George N. Papanicolaou more than 50 years ago, is a cellular specimen removed from the lower female genital tract that is used in routine screening for cancer. The Pap smear for detection of cervical cancer should include samples of cells from the ectocervix, transformation zone, and endocervical canal.

- In the United States, most Pap smears are obtained as part of a medical examination by a woman's physician or in the context of a health maintenance program. A cervical cancer screening program refers to the testing of large numbers of women who manifest no symptoms of pathological changes of the female genital tract, in order to classify them as likely or unlikely to have cervical cancer or its precursors.