

# CuBE, Guide to the Literature of Community Medicine, Epidemiology, and Preventive Health Services

A new periodical, *Current Bibliography of Epidemiology* (CuBE), for medical and public health libraries has been developed by a committee of epidemiologists in collaboration with the professional staff of the National Library of Medicine (NLM).

Until now, preparation of current bibliographies in specialized subjects related to medicine has been limited because of the need for professional and technical staff to screen the literature. Application of computer technology to indexing the literature received in the National Library of Medicine now makes it possible to produce this bibliography directly from the information stored in the tape files of NLM.

Because of space limitations, the number of subject headings under which a citation may be printed in *Index Medicus* is limited to the principal aims and contents of each article. Thus, citations of interest and value to workers in epidemiology, public health, and preventive medicine frequently are not listed under the subject headings and subheads to which investigators, practitioners, and administrators in these fields are likely to refer.

The American Public Health Association (APHA) and its epidemiology section are sponsoring the publication to meet this need. Its purpose is to provide a comprehensive and continuing index to the current periodical literature related to epidemiology, public health, and preventive medicine. The first issue of the monthly publication will appear in January 1969. A separate cumulative volume will be published annually.

The specialized publication will make it possible to provide more detailed and comprehensive references in special fields. The text of each issue is prepared by a computer search of

MEDLARS (NLM's Medical Literature Analysis and Retrieval System) tapes for the corresponding period of *Index Medicus*. It includes material from all the 2,300 periodicals indexed by NLM's staff. The bibliography is divided into the following two sections.

*Section 1* consists of 150 selected subject headings related to epidemiology, public health, and preventive medicine. The topics represent the range of interests of teachers, investigators, and administrators (see sample list). The headings are listed alphabetically in one section of 20 to 30 pages and can be scanned for items of interest in a few minutes.

*Section 2* provides current research and experience related to the etiology, prevention, and control of diseases. All diseases and organisms and other relevant topics, such as vaccines, are coextensive with *Index Medicus*. For diseases, the subheads under which references are cited include occurrence, immunology, mortality, etiology, familial and genetic, prevention, and control. This section will also contain entries for organisms under the subheads pathogenicity, and immunology. For approximately 40 viruses, bacteria, and related vaccines, which are being studied by epidemiologists, a more extensive list of subheads is used. This section is alphabetically arranged to facilitate reference to specific diseases or organisms.

This publication represents nearly 4 years' collaboration between the epidemiology section of APHA and the staff of NLM. As the work progressed, suggestions were received from investigators, teachers, and administrators in the several fields. The format for this publication was determined after repeated experiments and trials and will be modified as changes in the field occur. Inasmuch as *Index Medicus* pro-

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### Sample of Subjects Included in Section 1

Accident prevention	Laboratory infection
Air pollution	Life expectancy
Autosome abnormalities	Mass screening
Birth rate	Maternal mortality
Carrier state	Nutrition surveys
Communicable disease control	Population control
Community health services	Population surveillance
Community mental health services	Prospective studies
Cross infection	Public health administration
Death certificates	Public health dentistry
Demography	Public health nursing
Disease outbreaks	Quality of health care
Disease vectors	Questionnaire
DMF index	Radioactive fallout
Environmental health	Refuse disposal
Epidemiologic methods	Retrospective studies
Family planning	Rodent control
Fluoridation	Rural health
Food contamination	Sanitary engineering
Food inspection	Sex chromosome abnormalities
Genetics, human	Smoking
Health survey	Viral interference
Industrial waste	Water microbiology
Infant mortality	Water supply
Insect vectors	Zoonoses

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vides an annual review of subject headings to keep abreast of the changes in medical research and publication, CuBE too will incorporate changes that experience may suggest.

The National Library of Medicine has contributed staff, processed trial runs, and encouraged the planning committee. The Library is still collaborating by providing photocopies of the pages from the computer, GRACE for each issue. Finally a grant has been awarded to underwrite the projected deficit during the first 3 years of publication to provide the financial stability needed to undertake this publication.

The publication, hopefully, will be useful to persons in health research and administration in medical schools and universities, in schools of public health, in governmental health service planning agencies, and in industry.

A subscription to the 12 monthly issues, estimated at 1,200 pages, and the cumulative issue, about 800 pages, costs \$35. Inquiries and subscriptions may be sent to Editor, Current Bibliography of Epidemiology, American Public Health Association, 1740 Broadway, New York, N.Y. 10019.—DR. MORTON D. SCHWEITZER, *associate professor of epidemiology, Columbia University School of Public Health and Administrative Medicine.*

**KENDRICK, PEARL L.** (University of Michigan School of Public Health), **GOTTSHALL, RUSSELL Y., ANDERSON, H. D., VOLK, V. K., BUNNEY, W. E., and TOP, FRANKLIN H.:** *Pertussis agglutinins in adults. Public Health Reports, Vol. 84, January 1969, pp. 9-15.*

Pertussis agglutinin levels were determined in 711 adults before and several times after injection of a booster dose of either aluminum phosphate-adsorbed diphtheria and tetanus toxoids and pertussis vaccine combined, diphtheria and tetanus toxoids, diphtheria toxoid, tetanus toxoid, or a suspension of aluminum phosphate. Seventy-six of the 711 subjects were noninstitutionalized and the remaining 635 were in six groups in four institutions. All the subjects except those in one institutional group had received primary injections of pertussis vaccine 7 to 13 years previously.

Wide differences in agglutinin levels were observed in prebooster tests both within and between groups; the highest titers were in the noninstitutionalized subjects. The resting or prebooster agglutinin titers in the majority of subjects in five of the six institutional groups were less than 1:20 and considered essentially negative.

Three of the six institutional groups received a booster dose of diphtheria and tetanus toxoids and pertussis vaccine combined, aluminum phosphate adsorbed. A mean sixfold to tenfold increase in pertussis agglutinin titer was observed in these groups of subjects.

**LEIFSON, JUNE** (University of Utah College of Nursing): *Glycosuria tests performed by diabetics at home. Public Health Reports, Vol. 84, January 1969, pp. 28-32.*

Glycosuria testing was performed in the home by 42 diabetics, 27 using Tes-tape and 15 using Clinitest. These tests were checked by (a) the investigator in the home, (b) the investigator in the laboratory, and (c) the independent observer in the laboratory. Percentage agreements between the diabetic's test results and the investigator's and observer's test results were tabulated. When the patients' tests were negative

using Tes-tape, the agreement varied from 86 to 100 percent; when the patients' tests were positive, the agreement varied from 11 to 80 percent. Clinitest percent agreements varied for both the positive and negative tests from 71 to 100 percent. Therefore, when the test results were negative, Tes-tape was read with the greater percent agreement. However, when the test results were positive, Clinitest had the greater agreement.

**ISKRANT, ALBERT P.** (Public Health Service), and **SMITH, RICHMOND, W., Jr.:** *Osteoporosis in women 45 years and over related to subsequent fractures. Public Health Reports, Vol. 84, January 1969, pp. 33-38.*

The relationship of a diagnosis of osteoporosis to the incidence of fractures was studied among 2,100 Michigan women age 45 and older. Relative vertebral density was determined by examination of lateral roentgenograms of the dorsolumbral spine. The women's subsequent fracture experience was recorded for 3 years.

A total of 325 women suffered fractures; 859 others were injured but

did not receive fractures. The annual fracture rate was 3.6 percent, varying from 2 percent among non-osteoporotics to 7 percent in those with osteoporosis. The fracture rate was about twice as high in each age group in women with osteoporosis as in women with greater relative vertebral density. In each 10-year age group the fracture rate increased with a decrease in vertebral density.

In the other three institutional groups and the one noninstitutional group, the subjects received no pertussis vaccine in the booster injections; they received aluminum phosphate adsorbed diphtheria toxoid, tetanus toxoid, or diphtheria and tetanus toxoids combined, or a control suspension of aluminum phosphate. A small increase in the pertussis agglutinin titer occurred among the subjects of the noninstitutional group and two of the institutional groups; a mean 3.9 fold increase in titer was observed in the other institutional group.

The results of the study suggest that the selective use of pertussis agglutinin determinations has a place in the study of whooping cough immunity levels in population groups.

In addition to errors in reading test results, the diabetics made errors in carrying out the tests. For example, 86 percent timed them improperly, 19 percent used test material beyond the marked expiration date, and 67 percent stored the material improperly.

The findings of this study point out how important it is to study critically and objectively at periodic intervals methods and tests accepted as sound and reliable. Physicians, nurses, and health service personnel should re-evaluate the glycosuria testing method the diabetic uses at home.

The closest association of fractures with decreased density was of fractures of the radius, femur, wrist, and ankle, especially when the injury was caused by a fall on the same level.

Based on these findings, it is estimated that, of the approximately 1 million fractures experienced each year by women 45 years or older in the United States, about 700,000 are incurred by women with osteoporosis. Elimination of osteoporosis would prevent an estimated 350,000 fractures. The relative reduction in fractures of the upper femur would be even greater.

SLONE, DENNIS (Lemuel Shattuck Hospital), GAETANO, LEONARD F., LIPWORTH, LESLIE, SHAPIRO, SAMUEL, LEWIS, GEORGE PARKER, and JICK, HERSHEL: *Computer analysis of epidemiologic data on effect of drugs on hospital patients. Public Health Reports, Vol. 84, January 1969, pp. 39-52.*

In recent years the increase in the number of pharmacologically active agents has highlighted the need for epidemiologic information on their efficacy and toxicity. In the absence of reliable denominator and numerator data, however, the scope of the problem cannot be determined. A comprehensive surveillance program designed to obtain such information on hospitalized medical patients was introduced into selected wards of

five Boston, Mass., hospitals in July 1966 by the division of clinical pharmacology of the Lemuel Shattuck Hospital and Tufts University School of Medicine.

Extensive information on the vital statistics of individual patients and complete records of all medications they received, together with estimates of efficacy and toxicity, are collected in order to describe subpopulations which react either ad-

versely, beneficially, or negatively to different drugs. The conventional description of individual patients is further extended by use of a biochemical genetic profile. Data are analyzed with the aid of a computer facility.

The surveillance system permits weighing the adverse and beneficial effects for any given drug. Drug interaction can be studied, and specific drug effects associated with genetic characteristics can be demonstrated. The system has provided useful, practical information. It is hoped such information will assist in the development of more rational therapeutics.

EDMUNDSON, WALTER F. (Public Health Service), DAVIES, JOHN E., NACHMAN, GIGI A., and ROETH, ROBERT L.: *P,p'-DDT and p,p'-DDE in blood samples of occupationally exposed workers. Public Health Reports, Vol. 84, January 1969, pp. 53-58.*

Data consisting of levels of p,p'-DDT and p,p'-DDE in whole blood samples taken from 94 men occupationally exposed to pesticides in south Florida were examined. The amount of DDT and DDE in whole blood samples was measured by gas chromatography using a modified Dale, Curley, and Cueto method.

DDT levels in blood samples were shown to be transient and related to the recency of exposure of the worker. The DDT and DDE levels in

blood samples of nonwhite members of the study groups were consistently higher than their white counterparts in the same occupational groups. The length of time (less than 10 years) the worker was employed in the industry, as well as the relative intensity of his exposure, is considered important in interpreting this observation. DDE levels in sequential blood samples of persons in the exposed occupational groups, taken 1 to 2 months apart, had a coefficient

of correlation of 0.81,  $P < 0.001$ .

We believe sequential sampling for DDE levels in blood could be a tool for surveillance of persons occupationally exposed to DDT, and the results could be related to the efficiency of measures taken to avoid the adsorption over prolonged periods. Studies of groups of persons occupationally exposed to DDT are considered important in shedding light on the pharmacodynamics of this chemical and perhaps on other chemicals which man similarly encounters and metabolizes. No toxicologic inferences are made in these studies.

GURUNANJAPPA, BALE S. (Public Health Service): *Life tables for Alaska Natives. Public Health Reports, Vol. 84, January 1969, pp. 65-69.*

The life expectancy of Alaska Natives (Aleuts, Eskimos, and Indians) for 1959-61 by sex and ethnic group was calculated by the method described by Reed and Merrell. The Natives' life expectancy at birth was 60.4 years, or 9.3 years less than the estimated life expectancy for the U.S. population in 1960. The in-

crease in life expectancy of the Alaska Natives from 1950 to 1960 exceeds any change that has occurred in the life expectancy of the U.S. population during any period of similar length.

Some of the factors contributing to this gain include the increased awareness among the Native people

about health matters, the prevention of certain infectious diseases, especially tuberculosis, reductions in infant mortality, and improved sanitation facilities.

The infant mortality rate decreased from 94.5 per 1,000 live births in 1950 to 74.8 in 1960 to 52.5 in 1966. The tuberculosis mortality rate per 100,000 population decreased from 641.1 in 1950 to 43.1 in 1960 to 18.4 in 1964-3-year moving averages.

MONTO, ARNOLD, S.; (University of Michigan School of Public Health): *Prevalence of antistreptolysin O in young Panamanians. Public Health Reports, Vol. 84, January 1969, pp. 77-80.*

Antistreptolysin O titers were determined for serum samples collected from persons born in the Panama area. All ages up to 29 years were represented in a group of 125 resi-

dents of Paraiso, Canal Zone. The age-specific mean titers rose to the highest levels (170 and 178) in the 5- to 9- and 10- to 14-year age groups and then fell to 129 Todd units

among those 20 to 29 years old.

Mean titers for these young adults and children were actually higher than titers that have been reported for similar age groups in North America. Streptococcal infection must, therefore, be a commonplace occurrence in this tropical region, especially among the young.