

# The Importance of Vital Records in Today's Society

HAZEL V. AUNE

A RECENT issue of a popular national magazine (1) described what is to date probably one of the most dramatic uses of marriage and death records. Entitled "A Most Valuable Accident," it is the story of the people who swallowed varying amounts of radium during World War I and on into the thirties. Most of them were the girls who painted the radium figures on watch dials. They found that their work went faster and more accurately if they licked their paint brushes to a point. A number of them died in the early nineteen twenties. Others have died since, but many are still alive.

The Atomic Energy Commission, as a part of its program of collecting all available information about the effect of radioactivity on human beings, is searching systematically for the survivors. The research team provided by the New Jersey State Department of Health, together with a detective from the State police are, in essence, conducting a "missing persons" search to track down and study the dial painters. To trace them, all available records are used. Marriage records are reviewed by the clerks of the vital statistics office in an effort to learn the present names of some of the girls. Death certificates are checked, not only to preclude vain hunts but also to learn presumed causes of death. This is a logical and practical use of vital records.

Most people take vital records for granted; assume we have always had them and, without much effort, will continue to have them available when we need them. The real story is quite different. It has taken more than 300 years to build our registration system. Even

today some vital events escape the registration network. For example, 11 areas have no centrally filed marriage records and 16 areas, no divorce records.

Looking backward, perhaps it is fortunate that our early settlers, predominantly English, were accustomed to the registration of christenings, marriages, and burials. This custom, no doubt, had its part in influencing the Grand Assembly of Virginia in 1632 to require ministers or wardens from every parish to provide at court on June 1 each year a register of christenings, marriages, and burials (2). These were the traditional events conducted by the church, but, in effect, they provided an account of births, marriages, and deaths.

In the beginning, the records were primarily for the protection of individual rights, especially those rights relating to the distribution of property. The emphasis on vital records as legal documents to protect both the individual and the community was first reflected in the 1639 law of the Massachusetts Bay Colony. The law departed from past practice by requiring government officers rather than the clergy to record births, deaths, and marriages (3), and formed the pattern for the laws adopted by Connecticut and New Plymouth, and, eventually, other colonies.

None of the early laws was particularly effec-

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*Mrs. Aune is chief of the National Consulting Service, National Office of Vital Statistics, Public Health Service. The article is based on a paper she gave at the 27th annual meeting of the Southern Branch, American Public Health Association, at Miami, Fla., on May 27, 1959.*

tive in promoting registration, probably because practically the entire justification for maintaining a registration system was the legal and historical use that could be made of the records.

For the next 200 years, nothing of significance was done to make registration more effective. During this time death lists and burial returns were occasionally used as a means of recognizing and fighting epidemics, or for reporting on health conditions in a given community.

Early in the 19th century, a few statisticians and medical men began to realize that records of births and deaths, particularly records of deaths by cause, were needed for the control of epidemics and the conservation of human life. In 1842 Massachusetts passed the first "modern" registration law (4). As revised in 1844, the law provided for uniform certificates to be used throughout the State and for the establishment of a statewide file of copies of the records.

At about this time national organizations first took a direct interest in registration. Among them was the American Medical Association, which in 1847, the initial year of its organization, appointed a committee to study ways and means of improving the registration of births, deaths, and marriages (5). Several years later, the association formally urged physicians throughout the country to request their States to establish offices for the collection of vital statistics.

How were statistics compiled at that time? The first effort to collect national birth and death statistics occurred in 1850. One hundred years ago, in 1860, when the Nation's population was nearly 31.5 million, the marshals of the U.S. Census Office enumerated less than 1 million infants under 1 year of age and less than half a million deaths (6). Now, a century later, our population is almost six times greater; more than 4 million births and over 1.5 million deaths are recorded annually. Marriages and divorces, combined, account for nearly 2 million more vital events (7).

Admittedly, in 1860, the marshals knew that more babies were being born and many more people were dying, but had to rely on the memories of their informants. There is abundant evidence that vital events were recalled and re-

ported in proportion to the recentness of occurrence. Furthermore, no record was made and no account taken of those who died in taverns, boarding houses, on shipboard, in boats on rivers, and so on. With such reporting deficiencies, it is not surprising that the apparent death rate varied from approximately 5 per 1,000 in Washington Territory, to 21 per 1,000 in Arkansas. Enumeration totals were actually compared with the death record totals in the seven States which required birth and death registration in 1860. In three States the marshals discovered a smaller number of deaths than were reported by the State authorities, and, in the other four, they discovered and reported more (8).

Despite the inadequacies, birth and death figures for the entire country were compiled largely from the reports of the census enumerators through the 1900 census because the only alternative was no national statistics at all. Meanwhile, however, aware that vital data could be satisfactorily collected only by the registration method, the Census Office established the "registration area for deaths" in 1880 (9). As a matter of fact, in certain large cities where a complete death registration system based on burial permits was in operation, no data on deaths were collected by the enumerators in 1880, 1890, and 1900. The records from the central registration offices of these cities were used instead (10).

In 1902, the Bureau of the Census was made a permanent agency by an act of Congress. The act authorized the director of the Bureau to obtain copies of records filed in vital statistics offices of such States and cities as, in his discretion, could provide satisfactory data. To develop a collection system capable of producing comparable statistics on a national basis required uniformity with respect to such matters as laws, forms, and procedures. Numerous organizations cooperated with the Bureau in tackling and accomplishing this task.

The American Public Health Association had been actively promoting uniform State registration and model laws for many years. In fact, in 1895 members of the association had proposed that it either draft a model law or set forth principles. No two States and few cities were using precisely the same forms of birth

and death certificates when in 1900 the APHA committee on demography was preparing a set of basic principles to guide States in preparing laws for the registration of deaths and the collection of mortality statistics. These principles, together with the first standard certificate of death, were adopted by the Bureau of Census in 1902, and were published in a circular (11) which was sent to the governor of each State, medical societies, journals, and others interested in registration. This document was extended in 1903 to cover the registration of births and included the first standard certificate of birth (12).

The broad registration principles were prescribed in the first model law of 1907. The model law gave the State boards of health central authority over registration matters, listed the items for inclusion on State certificates, specified responsibility for registering births and deaths, provided for the establishment of local officials and for the issuance of burial permits, and called for enforcement of the law. The major new items introduced in subsequent revisions of the law include marriage and divorce registration, a standard certificate of fetal death, provisions for delayed registration and alteration and amendment of vital records.

Although every State had passed registration laws (13) of a sort by 1911, the Bureau of the Census did not create the national birth registration area (14) until 1915. By then, the death registration program was established on a firm basis. In 1933, for the first time, both the birth and death registration areas included all States. Only since that year have the annual vital statistics publications been based upon data from the entire United States.

This does not mean there were no vital statistics published from 1900 to 1933. The annual collection of mortality statistics began in 1900. The first published report combined in one volume the statistics for the 5-year period 1900-04 for the States and cities in the death registration area. However, no birth statistics were published by the Bureau from 1900 until 1915. The earliest statistics on marriages and divorces for the 20-year period 1887-1906 were obtained from a survey by the Census Bureau; in addition, some 1867-86 data were summarized from an earlier survey by the Commissioner of

Labor (15). Similar surveys and, on occasion, more systematic collections provided intermittent publication of limited marriage and divorce statistical data until 1949, when the National Office of Vital Statistics began a program of detailed statistics based on State tabulations. The registration area for marriage was established on January 1, 1957, and, for divorce, on January 1, 1958. Just when all States will be included in these areas is the major question of the registration system today.

Lest I may have given the impression that registration of vital events, and more particularly of births, was motivated primarily by officials interested in their use for statistics, note S. N. D. North's quotation (12) of Dr. John S. Fulton on the direct interest of the individual citizen in 1903:

"The private interest of the citizen in registration of births is indeed superior to his interest in registration of deaths, for a greater proportion of his privileges and immunities, rights and duties, turning upon the question of his age and his parentage, are definitely conserved by the registration of his birth.' Some idea of the frequency with which questions arise requiring reference to the records of births may be gained from the fact that the calls for copies of records or for information contained in them in New York City during the year 1902 exceeded 3,000."

Of course, this is only a tiny fraction compared with the hundreds of thousands of copies of birth, death, marriage, and divorce records issued and used for various purposes today. But the use of vital records even in 1902 demonstrates that our registration and statistics system came about not by mere chance but in response to demands for records as well as statistics. The need for legal documents with evidentiary value increased greatly as society became more complex and man began to be required to prove his right to his name, his citizenship, and his place in society.

Each day society is creating new and increasing demands on the vital records system. As medical advances are made, for example, vital records grow in importance and more and more data are sought through the records.

Sirken and Dunn (16) have discussed the development of sampling survey methods and

conduct of studies to collect supplementary statistical data "anchored to vital records." Their paper described the Pennsylvania mortality study, the methodological study undertaken primarily to develop procedures of collecting information to supplement data contained in death certificates. The study also served as a pilot test for an epidemiological lung cancer study.

A paper on residence history of deceased persons was presented at the recent Population Association meeting at Providence, R.I. And a survey has been conducted to determine the extent to which deceased persons recently received care from hospitals, nursing homes, and sanatoriums during a 1-year period prior to death.

Another survey, the national lung cancer study, using the methodology of the Pennsylvania mortality study, has been extended for a year for cancer deaths in females, but the bulk of information has been collected on smoking habits and residence history. Coding, punching, and tabulating operations are well underway. In the interim one statewide pilot study is in progress to establish the quality of diagnostic information on death certificates for which the coded underlying cause is either malignant neoplasm of the bone or buccal cavity.

Another illustration of society's growing demands on vital records is the task of providing vital records for Americans abroad. This past year, more than 800,000 of our citizens traveled abroad. Each traveler had to prove his birth facts to obtain a passport. These travelers, together with our military personnel stationed in foreign countries, reported nearly 50,000 births to U.S. consular officers throughout the world. Providing satisfactory birth record service for children born abroad who are U.S. citizens is a problem second only to that of obtaining birth certificates for the increasing number of alien children being adopted in the United States. The interagency committee, formed at the request of the Association of State and Territorial Health Officers and the American Association for Vital Records and Public Health Statistics, is making progress toward solution of these problems. At the committee's next meeting, specific concrete recommendations for

new and improved record services for these events should emerge.

These are only a few of the many ways in which the use of vital records can affect man and society. There are many more, from planning for school facilities 5 years hence, when the birth records show there will be a tremendous increase of 6-year-olds in the population, to demands, yet unknown, for planning in the atomic space ages.

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- (2) Trask, J. W.: Vital statistics, a discussion of what they are and their uses in public health administration. *Pub. Health Rep.* (supp. No. 12) 94 : 18, Apr. 3, 1914.
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- (9) Wilbur, C. L.: *The Federal registration service of the United States: Its development, problems and defects*. Washington, D.C., U.S. Government Printing Office, 1916, vol. 86, p. 9.
- (10) U.S. Department of Interior: *Tenth census of the United States*, 1880. Vol. XI. *Mortality and vital statistics*. Washington, D.C., U.S. Government Printing Office, 1885, part I, p. xii.
- (11) U.S. Bureau of the Census: *Registration of deaths*. *Vital Statistics Circular No. 71*. Washington, D.C., U.S. Government Printing Office, 1902.
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- Population Studies 4: 86-111 (92), June 1950. (Reprint.)
- (15) U.S. Department of Commerce and U.S. Library of Congress: Catalog of United States census publications, 1790-1945. Washington, D.C., U.S. Government Printing Office, 1950, p. 269.
- (16) Sirken, M. G., and Dunn, H. L.: Expanding and improving vital statistics. Pub. Health Rep. 73: 537-540, June 1958.

## PUBLICATION AND FILM ANNOUNCEMENTS

*Address inquiries to the publisher or sponsoring agency. WHO publications may be obtained from the Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N.Y.*

*When a Family Faces Cancer.* Public Affairs Pamphlet No. 286. By Elizabeth Ogg. July 1959; 28 pages; 25 cents. Public Affairs Pamphlets, 22 East 38th Street, New York 16, N.Y.

*The One-Parent Family.* Public Affairs Pamphlet No. 287. By Anna W. M. Wolf and Lucille Stein. August 1959; 28 pages; 25 cents. Public Affairs Pamphlets, 22 East 38th Street, New York 16, N.Y.

*How Retarded Children Can Be Helped.* Public Affairs Pamphlet No. 288. By Evelyn Hart. September 1959; 28 pages; 25 cents. Public Affairs Pamphlets, 22 East 38th Street, New York 16, N.Y.

*Added Years.* Monthly newsletter of the New Jersey State Division of Aging. September 1959 (first issue); 4 pages. State of New Jersey, Division of Aging, Trenton 25, N.J.

*Cancer in California.* Prepared by California Tumor Registry, Bureau of Chronic Diseases, California Department of Public Health. 1959; 47 pages. State Department of Public Health, Berkeley 4, Calif.

*Dental Public Health in New York State.* A review on the occasion of the American Dental Association Centennial, 1859-1959. 1959; 41 pages. New York State Department of Health, Albany, N.Y.

*The Status of World Health, in Outline Text and Chart.* Prepared for the Committee on Government Operations, United States Senate, and its Subcommittee on Reorganization and International Organizations. 1959; 81 pages; \$1.25. Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

*The Air Pollution Bibliography.* Volume II. Compiled by the Bibliography Section, Science and Technology Division, Library of Congress for the Public Health Service. 1959; 176 pages. Single copies available without charge from Public Inquiries Branch, Office of Information, Public Health Service, Washington 25, D.C.

*The Cost of Medical Care.* Studies and Reports, New Series No. 51. 1959; 216 pages; \$1.50. International Labour Office, Washington Branch, 917 15th Street NW, Washington 5, D.C.

*Manual of Industrial Radiation Protection. Part II. Model Code of Safety Regulations (Ionising Radiations).* 1959; 54 pages; 75 cents. International Labour Office, Washington Branch, 917 15th Street, NW, Washington 5, D.C.

### Film

*Back on the Job.* Film showing how heart attack victim is returned to employment, produced for the American Heart Association. Written and directed by George C. Stoney, assisted by Katherine Stoney, Potomac Films. 16 mm., black and white, sound, 14½ minutes. Distributed

nationally for showing to lay and professional audiences by the Association's affiliates and chapters.

### World Health Organization

*Resolutions and Decisions of the Twelfth World Health Assembly, Geneva, May 12-29, 1959.* (Offprint from Official Records of the World Health Organization No. 95.) August 1959; 52 pages; 70 cents.

*Iron Deficiency Anaemia.* Report of a Study Group on Iron Deficiency Anaemia. WHO Technical Report Series No. 182. 1959; 30 cents.

*Social Psychiatry and Community Attitudes.* Seventh Report of the Expert Committee on Mental Health, Social Psychiatry and Community Attitudes. WHO Technical Report Series No. 177. 1959; 30 cents.

*Role of Hospitals in Ambulatory and Domiciliary Medical Care.* Second Report of the Expert Committee on Organization of Medical Care, Role of Hospitals in Ambulatory and Domiciliary Medical Care. WHO Technical Report Series No. 176. 1959; 30 cents.

*Preventive Aspects in the Teaching of Pathology.* Seventh Report of the Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel, Preventive Aspects in the Teaching of Pathology. WHO Technical Report Series No. 175. 1959; 30 cents.

*Hygiene and Sanitation in Aviation.* First Report of the Expert Committee on Hygiene and Sanitation in Aviation. WHO Technical Series No. 174. 1959; 60 cents.

# Signs

and

# Symptoms

## of trends in public health

A set of suggested guides for medical care in nursing homes and related facilities has been developed and approved jointly by the American Nursing Home Association and the Council on Medical Service of the American Medical Association. The guides appear in the August 1959 issue of *Chronic Illness*.

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Jurisdiction over nursing homes was assigned by the Legislature of Ohio to the State department of health, beginning September 7, 1959.

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Fluoride added to water does not increase corrosion of common household metals, Sanitarian Joseph A. McCarthy reports in *Sanitalks*, quarterly publication of the division of sanitary engineering, Massachusetts Department of Public Health.

In the same issue, preplanning for water supply emergencies is urged by Ralph M. Soule, sanitary engineer. Advance actions suggested by Soule on the basis of Massachusetts experience include having emergency chlorinating equipment and a supply of chlorine compounds on hand, provision for an auxiliary gasoline or diesel engine to drive electrically operated pumping equipment, protection of pumping stations from flooding with polluted waters, and organization and training of auxiliary personnel.

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A 5-day smog brought death to at least 300 residents of London last December, reported Dr. John Scott, medical officer, County of London. Most died from respiratory disease, including bronchitis.

The new dental clinic of the Philadelphia General Hospital was dedicated on October 14, 1959, equipped with 21 dental chairs, 10 dental units, a dental research laboratory, closed-circuit television, and an intercommunication system. The clinic is completely air conditioned.

Dr. Robert H. Ivy, who in 1901 served at the hospital as the first dental intern in America, was presented with a plaque at the dedication ceremonies.

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Researchers engaged in the study of cybernetics applied to medicine and biology may now join the recently founded International Society of Cybernetic Medicine, which has offices at 348 Via Roma, Naples, Italy. Physicians, biologists, engineers, physicists, and mathematicians are eligible.

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Observing that a number of college students, lined up for immunization shots, fainted under the needle, Dr. Joseph Smith, health officer in Providence, R.I., relates that he once marked a circle on the floor and painted instructions in large letters, FAINT HERE. After that, no more students fainted.

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Forty-nine medical and nursing officers and other specialists are on assignment from the Public Health Service heart disease control program to 27 State and local health departments to help extend and stimulate work in cardiovascular disease control throughout the United States. The total number of these assignments is expected to increase appreciably in 1960.

More men, women, and children are killed by reckless walking than by reckless driving in the District of Columbia, according to a 10-year survey by the American Automobile Association, which established that two-thirds of all deaths from traffic on D.C. streets were pedestrians.

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Farm labor camp operators in New York State must meet stricter requirements in order to obtain operating permits this year. New provisions added to the State sanitary code have strengthened specific requirements in regard to space, fire hazards, bathing facilities, heating facilities, screening, and maintenance of buildings and grounds. Approximately 40,000 migrants work in the State's 1,160 farm labor camps each year.

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The first recognized case in Brooklyn of rabies in a bat has been reported by Dr. Morris Greenberg, director of the New York City health department's bureau of preventable diseases. Since 1953 the Public Health Service has received reports of 75 persons bitten by rabid bats; all but three bites occurred when a bat was picked up.

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Radiation is the most important newly emerging public health factor in the United States today, a nationwide panel of Federal, State, and local public health directors told the American Public Health Association.

Air pollution, aging, chronic disease, mental health, safety, urban and suburban expansion, financial management, staphylococcal infections, and medical and surgical care of the indigent, followed radiation closely in the panel's listing.

A series of surveys is planned by APHA to identify changing trends as a basis for improved planning in public health. A panel of 80 has been established for the survey series which includes 52 State and Territorial health commissioners, 20 directors of city or county health departments, and 8 regional directors of the Public Health Service. Each will be queried periodically on trends in his own jurisdiction.

# Federal Publications

**Algae in Water Supplies.** *PHS Publication No. 657; 1959; by C. Mervin Palmer; 88 pages; \$1.*

This illustrated manual on the identification, significance, and control of algae has been prepared for technicians in water treatment plants and others who deal with algae in water supplies.

Algae are described and shown in color according to their occurrence with taste and odor, filter clogging, pollution, and clean water. Considered separately according to habitat are algae growing on reservoir walls and plankton and other surface water algae. Special attention is given to the beneficial part algae play in sewage treatment as well as the problems they cause. Procedures for enumerating algae are also discussed.

References to related literature are listed at the end of each chapter. The appendix includes a key to algae of importance in water supplies, glossary, bibliography, and genus and species index.

## Professional Nurse Traineeship Program.

**Part I. A report of the national conference to evaluate two years of training grants for professional nurses.** *PHS Publication No. 675; 1959; 62 pages; 30 cents.*

**Part II. Facts about the nurse supply and educational needs of nurses based on data compiled for the national conference to evaluate two years of training grants for professional nurses.** *PHS Publication No. 676; 1959; 47 pages; 25 cents.*

Part I is the report to the Surgeon General, Public Health Service, by an evaluation conference which met in Washington in August 1958. It presents views and recommendations of nursing, health, and education leaders on how to fulfill the demand for leaders in nursing and an analysis of the Federal Government's first grant program to help professional nurses obtain advanced education in

teaching, administration, and supervision. The appendix includes data on nursing needs as they relate to the program and describes the conference meetings.

Part II is a revision of a source book prepared for orientation and guidance of the conferees. It contains data on nurses who received funds through the program, needs for nurses in top leadership positions, schools where nurses may receive advanced training, and public health agencies, nursing homes, and industries which employ these nurses.

**Highlights of Progress in Research on Cancer, 1958.** *PHS Publication No. 671; 1959; 46 pages; 25 cents.*

Summaries of selected research findings in virology, pharmacology, epidemiology, and other scientific disciplines reflect significant accomplishments in clinical and laboratory investigation by staff scientists and grantees of the National Cancer Institute, Public Health Service. The items are organized under four broad headings: causation, characteristics, diagnosis, and treatment of cancer.

**Fertility Studies Based on Data for the 1960 Census Period.** *Vital Statistics—Special Reports; Selected Studies; vol. 47, No. 5; June 8, 1959; pages 145-157.*

Calling for the widest possible participation in and support for studies of fertility, this report considers the kind of fertility studies that might be made from vital and population statistics for 1960 and indicates the ways in which the data should be tabulated in order to make such studies possible. It was prepared by the Subcommittee on Fertility and Population Statistics of the National Committee on Vital and Health Statistics.

Topics suggested for study include concepts of family size; effect on fertility of the dissolution of marriages by divorce or death, and of

remarriage; interrelationships between changes in economic conditions and fertility; birth spacing; and the evaluation of data collected by the National Office of Vital Statistics and the Bureau of the Census.

**Interviewing Guides for Specific Disabilities. Pulmonary tuberculosis.** *U.S. Department of Labor Publication (unnumbered); revised 1959; 10 pages; 5 cents, \$3.75 per 100.*

Directed to industrial physicians, placement and rehabilitation workers, and employment service staff, this folder outlines the latest information on the treatment, rehabilitation, and employment of tuberculosis patients. It was prepared with the assistance of the National Tuberculosis Association.

The new guide, retaining the established format of the series, is divided into four sections: description of the disability, evaluation of work capacity, definitions, and cooperating agencies.

**Sewage and Water Works Construction, 1958.** *PHS Publication No. 673; 1959; by William H. Abbott and Elsie M. Gibson; 14 pages; 20 cents.*

Contracts awarded during calendar year 1958 for constructing sewage treatment plants, collecting sewers, and water systems are itemized in this report. Tables present data arranged by States, population groups based on community size, and contract size groups.

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This section carries announcements of new publications prepared by the Public Health Service and of selected publications prepared with Federal support.

Unless otherwise indicated, publications for which prices are quoted are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Orders should be accompanied by cash, check, or money order and should fully identify the publication. Public Health Service publications which do not carry price quotations, as well as single sample copies of those for which prices are shown, can be obtained without charge from the Public Inquiries Branch, Office of Information, Public Health Service, Washington 25, D.C.

The Public Health Service does not supply publications other than its own.

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