The History of the Sanitarian Profession

Robert W. Powitz, Sanitarian
With Gratitude and Thanks to the Following Authors

Grace L. Loye, MSPA
  1937  The Sanitarian and His Duties

George Rosen, MD
  1958  A History of Public Health

W.W. Sampson, PhD
  1967  The History of the National Association of Sanitarians
With Gratitude and Thanks to the Following Authors

Ben Freedman, MD, MPH
1957 and 1977  Sanitarian’s Handbook

John Duffy, PhD

Suellen Hoy, PhD
1995  Chasing Dirt: The American Pursuit of Cleanliness
With A Special Thanks to:

Bob Custard
Sanitarian
NEHA Region 8 Vice President
Environmental Health Manager, Alexandria, VA

Whose dedication and interest in environmental health, our profession and its many practitioners made this presentation possible.
... in the Beginning
Environmental Health Beginnings


For over 1,000 years after the fall of the Roman Empire, personal hygiene was considered “worldly” and European living conditions and health, with minor exceptions, were left to the province of an extra rational power.
Environmental Health Milestones

- 1200’s London:
  - Smoke abatement law
  - Forbidding swine in streets
  - Keeping fronts of houses clean

- 1348: Venice - First Board of Health and Quarantine.

- 1350: France - Sanitary Police program.

- 1388: England - First English Sanitary Act

- 1415: England - First Nuisance Act
Environmental Health Milestones

- 1486: England - Regulation of slaughter houses.
- 1495: England - Statute against contagion by fomites (bedding).
- 1513: Santa Domingo - First health ordinances in the new world.
- 1558: Italy - Luigi Cornaro publishes treatise on personal hygiene.
- 1599: Vienna - Temporary prohibition on the sale of milk products.
First Sanitation Law in Virginia

Articles, Lawes, and orders, politique and martiall, established May 24, 1610 for the colony in Virginia (by Sir Thomas Dale, deputy governor.)

No man, woman, launderer, or laundersesse dare to wash any uncleane linnen, drudge, buckes, or throw out the water or suds of soule cloathes, in open streets, within the Pallizadoes, or within forty foote of the same, nor rench, and make clean any kettell, pot, or pan, or such like vessel within twenty foote of the olde well, or new pumps, nor shall anyone aforesaid, within lesse than a quarter of one mile, from the Pallizadoes dare to doe the necessaries of nature, since by these unmanly, stothfull, and loathsome immodesties, the whole fort may bee choaked, and poisoned with ill aires, and so corrupt (as in all reason cannot but much infect the same) and this shall they take notice of, and awoide, upon paine of whipping and further punishment, as shall be thought meete, by the censure of a martiall court." (sec. 22, pg. 15)

Every man shall have an especiall and due care, to keepe his house sweete and cleane, as also so much of the streete, as lieth before his door, and especially he shall provide, and set his bedstead, whereon he lieth, that it may stand three foote at least from the ground, as he will answer the contrarie at martiall court." (Sec. 25, pg. 16)

(Historical Tracts - Vol. 11) By Force)
Environmental Health Milestones

- 1774: Guatemala - First Board of Health
- 1774: England - Prison reform*
- 1783: Berlin - First meat inspection regulations
- 1793: Baltimore - First City Board of Health
- 1798: USPHS established
- 1799: Germany - Johann Peter Frank published work on public hygiene
Newgate was notorious for its overcrowding, unhealthy environment (lack of air and water, and epidemics). Prisons, Newgate included, did not supply their prisoners with bedding and clothing. These things had to be purchased from the keepers. In addition to this cost, prisoners were also expected to pay a fee upon admission. They also needed to continue to pay money if they wanted any of the ordinary comforts of life. Then, when released, they were expected to pay yet another fee before they were allowed to leave.
In March of 1847 Captain William John Williams accepted a charge by the Home Secretary to "inquire diligently" into conditions of confinement on the hulks.

Thomas Duncombe, Member of Parliament, led the inquiry into conditions of confinement and assisted Williams in his work.
Early public health efforts in the United States:

- 1854 and 1856: Massachusetts – First milk laws
- 1855: Louisiana - First State Board of Health.
- 1859: Boston - First milk inspector
- 1863: Washington, DC – First nuisance law
- 1866: New York – Metropolitan Health Act
The word finds its way into the English language:

**SANITARY**: 1842, from Fr. *sanitaire* (1812), from L. *sanitas* "health," from *sanus* "healthy, sane." In ref. to menstrual pads, first attested 1881 (in sanitary towel). Sanitize first recorded 1886; metaphoric sense is from 1934.

**SANITATION**: 1848, irregularly formed from sanitary. As a euphemism for garbage (e.g. sanitation engineer) first recorded 1939.
The Early Thinkers and Reformers
The Public Health Reformers

Catharine Beecher - 1841
  A Treatise on Domestic Economy, for the Use of Young Ladies at Home and at School

William Alcott - 1830-1859
  wrote 100’s of articles on Cleanliness, Health and Virtue
  The Law of Cleanliness

Sylvester Graham – 1840’s
  wrote on Cholera and Hygiene

Edwin Chadwick - 1842
  The Sanitary Conditions of the Labouring Population of England
The First Sanitarians

John H. Criscom - 1844
The Sanitary Condition of the Laboring Population of New York

Lemuel Shattuck – 1850
Report of the Massachusetts Sanitary Commission

Dr. J.C. Simonds – 1851
The Sanitary Condition of New Orleans (Tuberculosis)

Dr. John Snow - 1854: Cholera Epidemic

Florence Nightingale – 1859
Notes on Nursing
After the influenza and typhoid epidemics in 1837 and 1838, Edwin Chadwick was asked by the government to carry out a new enquiry into sanitation. His report, *The Sanitary Conditions of the Labouring Population* was published in 1842. Chadwick argued that disease was directly related to living conditions and that there was a desperate need for public health reform.
Reviewed birth, marriage and death records for Boston neighborhoods.

Concluded that sanitary conditions affected the death rate.

Editor of the Report on the Sanitary Condition of Massachusetts.
Studied the geographic distribution of cholera deaths in London during the 1854 epidemic.

Concluded that people who drank water from the Soho District Broad Street pump were more likely to get cholera.

Removed the pump handle and stopped the epidemic. Contamination came from a “Dolphin” located downstream of a sewer outfall.
“The Apostle of Cleanliness”

Studied death rate from communicable diseases (principally cholera and typhus) among wounded British soldiers during the Crimean War (1855).

Statistically proved that improvements in sanitation at hospitals led to a decrease in the death rate.

Human health is first linked to environmental conditions.
THE CIVIL WAR YEARS
Founded June 19, 1861 by Henry Whitney Bellows and William H. Van Buren, the Sanitary Commission was one of the great triumphs of private humanitarian enterprise during the Civil War. It was created to make up for grievous shortcomings of the Union Army's small and inefficient Medical Bureau. The Commission along with its impressive women's auxiliary, soon became the largest and most advanced national agency devoted to the care of casualties of war, supplying ambulances & medicines, staffing hospitals with doctors & nurses, inspecting camps and much, much more. Among its distinguished commissioners were Cornelius R. Agnew, Alexander D. Burke, Wolcott Gibbs, Elisha Harris and Frederick Law Olmstead. Its energetic treasurer, George Templeton Strong, raised nearly $5 Million for the Commission during the war.
Mission: To consider the location of the camp, its drainage, ventilation of tents or quarters, the quality of the rations, the methods of cooking, latrines, the general cleanliness of the camp and of the men ...

... they were instructed to suggest tactfully the points of deficiency to the commanding officers.
U.S. Sanitary Commission

First USSC office and field hospital - 1861

USSC Doctors and Nurses Fredericksburg 1864
Provided most medical and sanitary supplies until the battle of Chancellorsville in 1863

“The Woman’s War” 20,000 served on both sides.

- The title “Nurse” carried cache!
- “Whitewash and women were the best disinfectants”

The lessons of cleanliness were brought home from the war. It started rural and urban public health initiatives.
Army Surgeon General
William Alexander Hammond

Appointed Surgeon General of the Army – 1862

A treatise on hygiene: with special reference to the military service - 1863
She noted the exceptionally high infant mortality rate in Taylor County, WV; seven of her eleven children died of communicable disease.

She organized Mothers Day Work Clubs through churches in five local towns to provide medicine for the indigent, inspection of milk for wholesomeness, and care for children of tubercular mothers.

She asked area physicians to help her set up procedures for sanitation inspections.
On September 3, 1863, Barnes was by a special order of the War Department "empowered to take charge of the bureau of the Medical Department of the Army.

For the remainder of his term of office he exhibited the greatest interest in the health and hygienic conditions of the army, in the comfort and welfare of the sick and wounded. Standardized field sanitation.
Societal values became popularized ... in civil and military life;
It brought home the idea of the value and economy of health and lives, and,
Made available to the public, the wide extent to which the knowledge and principles of hygiene influence personal and public health.
Stephen Smith, M.D.

Editor of the American Medical Times (1860 – 1864) and first president of the American Public Health Association

“The vocabulary of sanitary knowledge and the elementary facts of hygiene had become familiar to every household.”
Post War Advances in Public Health

- Public health laboratories
- Milk pasteurization
- Identification of mosquito and tick borne diseases
- Identification of parasitic diseases
- Identification of the Tuberculosis bacillus
Post War Advances in Public Health

- Water treatment and disinfection
- Mosquito control
- Identification of fecal borne diseases and control
- Septic and sewage systems developed
- Garbage reduction
the Modern Sanitarian
1872: APHA was founded
  • First Journal called "The Sanitarian"

1875: Alabama - first rural public health

1879: National Board of Health created
  • Discontinued in 1893

1881: New York - first effective food control laws in the U.S.

1882: Newark - first dairy inspections
Robert Koch - 1877-1883: Koch’s Postulates
Louis Pasteur - 1877-1888: Germ Theory
Sergei Winogradsky – 1887: Pioneer in Environmental Microbiology
Major Walter Reed – 1900: Yellow Fever
Charles-Edward Amory Winslow – 1910-1957
Environmental Health Pioneer;
Septic systems
Known for his work on tuberculosis, for which he was awarded a Nobel Prize.

Established *Koch's Postulates* that provide the basis for establishing if an organism is the cause of a disease.

Koch pioneered the use of microbiologic techniques still used today – agar growth media, Petri dishes; bacterial purification and staining techniques.
Louis Pasteur

Established the “Germ Theory” in 1888
Pasteurization process for beer and milk – 1877
Discovered anaerobic life, microbial utilization of oxygen, filterable viruses.
Defined fermentation, and developed rabies and anthrax vaccines and the basis for aseptic surgery.
Father of modern environmental microbiology.

*Winogradsky Column*

Establishes the concept of autotrophy.

Discovers the organisms responsible for nitrification in soil.
Reed’s research on Yellow Fever was the seminal work on vectorborne disease transmission.

In October 1900, Major Reed was able to announce to the annual meeting of the American Public Health Association that "the mosquito serves as the intermediate host for the parasite of yellow fever."
Field Sanitation Manuals: 1918 and 1938
Charles-Edward Amory Winslow

Founded the Yale Department of Public Health – 1915.
Pioneered modern sewage disposal; housing and urban renewal.
1932-1947 - Senior Sanitarian, United States Public Health Service (Reserve)
Most widely quoted and influential public health pioneer
Rural sanitary surveys conducted by the Public Health Service under the leadership of such officers as Leslie L. Lumsden (1875-1946) and Charles W. Stiles (1867-1941)
Public Health Milestones

- 1900 – 1910: Several states enact mandatory licensing for sanitary inspectors
- 1906: Food and Drug Administration created and Federal Food Laws promulgated
- 1930: California Association of Sanitarians
- 1937: National Association of Sanitarians
THE PURPOSE
OF THE
NATIONAL ASSOCIATION OF SANITARIANS, INC.

The objective of the National Association of Sanitarians is to promote the welfare of sanitarians engaged in public health inspection or in allied occupations and to professionalize their status to foster and promote high standards of attainment in their work and of qualification for engaging therein to strive for their recognition as a scientific group by public and official sources, rendering a governmental service for the general welfare of the public to bring about harmonious and cooperative effort for better understanding and more efficient rendering of their duties and responsibilities to bring about standardization in methods of law enforcement and general public health practices in their respective fields; to encourage the establishment of courses of instruction and schools of training for the purpose of increasing the knowledge and efficiency of its members for their usefulness in public health work; to encourage reciprocal cooperation of the various branches and departments of government in activities directed towards the improvement of public health to cultivate social intercourse among its members and to establish a central point of reference for its members.

Hezekiah A. Jewett, Chairman
Membership Committee.

APPLICATION FOR MEMBERSHIP

I wish to apply for membership in the National Association of Sanitarians.

Name: _____________________________________________________________

(Print Name in Full)

Street and City: ____________________________ State: ______________________

(For Correspondence and THE SANITARIAN)

Present public health occupation: _______________________________________

Requirements: Any Sanitarian permanently employed by a whole-time health service in the United States or its Territories is eligible for election as a member of the Association.

Dues: Dues of Active Members are $5.00 per year, which includes an annual subscription to THE SANITARIAN.

NATIONAL ASSOCIATION OF SANITARIANS, INC.
423 South Flower Avenue
Los Angeles, California
Sanitarian and Educator: Defined the Knowledge, Skills and Attributes of the sanitarian profession

Journal Editor

Walter S. Mangold Award – Established in 1955

Legacy – a heritage of professional leadership
A. Harry Bliss

Sanitarian
Teacher
Mentor
Association
Founder
Founder
Diplomate
Journal Editor

1942

A. Harry Bliss
Riverside, California
Public Health Milestones

- 1946: Communicable Disease Center was created in Atlanta, Georgia
- 1956: Sanitarians Joint Council
- 1970: EPA established
- 1970: NAS changes name to the National Environmental Health Association
Formed in 1956: Sanitarians from APHA, IAMFES and NAS.

Objectives:

1. Develop a uniform definition of Sanitarian
2. Promote professional status
3. Develop a Sanitarian Specialty Board
4. Draft a recommended uniform registration act
5. Develop and promote education and other qualifications for the sanitarian profession
American Intersociety Academy for Certification of Sanitarians - 1966

Founder Diplomates:
Harold S. Adams
A. Harry Bliss
Emil T. Chanlett
E. E. Diddams
B. Russell Franklin
Larry J. Gordon
William V. Hickey
William C. Miller, Jr.
A. Faegin Parrish
Verne C. Reierson
Edwin L. Ruppert
Darold W. Taylor
Larry J. Gordon

Sanitarian
Academician
Teacher
Author
Mentor
Founder Diplomate
Innovator
Evolution of the Definition

Sanitarian

1. A non-medical practitioner of sanitation
2. An advocate of sanitary measures; one especially interested or versed in sanitary measures.
3. A person who is trained and experienced in the field of sanitary science and technology and who is authorized to carry out the educational, inspectional and enforcement duties in the field of environmental health services.
A credentialed practitioner in the environmental, sanitary and public health sciences whose vocational efforts are directed towards the evaluation and management of those factors and mechanisms in our environment which impact upon the reduction of risk of disease and injury as well as the improvement in the quality of life.
Sanitarian Becomes a Profession

2000 -

Standard Occupational Classification

19-2041
Epilog
It is the mark of a profession to grow with problems and responsibilities of the times.

The horizon of our profession can no longer be limited to the local or even the national community but must extend to the international community.
Epilog

We must strive toward a goal of freedom from disease, want and fear.

We must continuously strive to advance our science, enhance our craft, and, pass on the noble legacy that has come down to us.

And, may the outcome be a healthy, safe and productive one!