The Role of Epidemiology in Shaping Public Health in the Americas: Past and Future directions

The Remit of PAHO

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Director
July 2002
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Epidemiology
The study of what is upon the people

Individual health

Population health

The key is information, and the production and use of epidemiological information was the “fons et origo” of the Pan American Health Organization.
2nd International Conference of American States
Mexico City, 1902

--- The said republics shall transmit to said bureau all data of every character relative to the sanitary conditions of their respective ports and territories.

--- That said Bureau may --- be enabled to lend its best aid and experience towards the widest possible protection of the public health of each of the said republics and that commerce between said republics may be facilitated.
1st Sanitary Convention of American Republics (1902)

“First, information. We have come together to give one another interesting and necessary information about ourselves.”

S/G Wyman

The study of what is upon the people produces:

data → information

knowledge

wisdom
The collection and use of information for national use has a long history

- health of individuals
- health of groups

HIPPOCRATES

The Seer of Cos: On Airs, Waters and Places (400 B.C.)
JOHN GRAUNT

Bills of Mortality (1662)

“That a true accompt of people is necessary for the government, and trade of them, and for their peace and plenty”

JOHN SNOW

On the mode of communication of cholera (1849)
Sick Individuals and Sick Populations
GEOFFREY ROSE

The international dimension of the use of sanitary information
“Quarantine”
In 1485, Venice introduced the 40 day harbor detention process (Latin “quarentina”).

1st. Sanitary Convention of American Republics (1902)

“Fourth, our deliberations will relate to scientific investigations, which alone enable us to be rational in both quarantine and sanitation, and which form the stone foundation and the iron girders of our hygienic structure.”

S/G Wyman
Third International Sanitary Convention, Mexico (1907)

--- Establishment in each one of the American countries of a “Sanitary Information Committee” to meet and communicate data about public health.

PAHO

“The Recent Past”
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Pan American Health Organization 2002

DR. RUTH PUFFER

Pan American Health Organization 2002
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MORTALITY IN CHILDHOOD

Resumen de los Informes sobre las Condiciones Sanitarias en las Americas 1950-1953
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“The Present”
For the vision to be realized we will have to use well that most powerful of modern instruments --information-- perhaps the only instrument that can close the gap between the world that is and the world that might be--

George A.O. Alleyne 1994

The Remit of PAHO

- Pristine function
  - Collection and dissemination

- Other technical cooperation with countries
  - Improvement in collection, analysis for surveillance
  - Training
  - Research
But for the information about what is upon the people to be optimally useful, it has to inform policy. Epidemiological information is critical to all the essential public health functions.

**Essential Public Health Functions**

- **EPHF 1**: Monitoring, Evaluation, and Analysis of Health Status
- **EPHF 2**: Public Health Surveillance, Research, and Control of Risks and Threats to Public Health
- **EPHF 3**: Health Promotion
- **EPHF 4**: Social Participation in Health
Essential Public Health Functions

- **EPHF 5**: Development of Policies and Institutional Capacity for Planning and Management in Public Health
- **EPHF 6**: Strengthening of Institutional Capacity for Regulation and Enforcement in Public Health
- **EPHF 7**: Evaluation and Promotion of Equitable Access to Necessary Health Services

Essential Public Health Functions

- **EPHF 8**: Human Resources Development and Training in Public Health
- **EPHF 9**: Quality Assurance in Personal and Population-based Health Services
- **EPHF 10**: Research in Public Health
- **EPHF 11**: Reducing the Impact of Emergencies and Disasters on Health
The most critical aspect of health policy in the Americas relates to the search for equity.

Inequity in Health
- The inequalities in health outcomes that are “unfair”
  - ie. avoidable
  - nonvolitional
  - attributable
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Inequalities

Epidemiology

Information

Health Outcomes

Health Determinants

Trend of IMR in the Region of the Americas, 1955-1995

IMR per 1,000 live births

Year

Pan American Health Organization 2002
**Trend of the rate ratio of infant mortality between rich and poor countries, 1955 - 1995**

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Pan American Health Organization 2002

**Live births population cumulative proportion**

**Deaths under age 1 cumulative proportion**

Pan American Health Organization 2002
Regional Core Health Data Initiative
Five Components:

- Basic indicators brochure
- Web-based generator system
- Indicators glossary
- Country health profiles
- Geographic Information System
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Evaluation of Sanitary Interventions (CUBA)

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Chat Architecture/ On-line Discussions

PAHO

“The Future”
The Future

Que será será
Whatever will be, will be.
The future is not ours to see
Que será será

The Desired Future for PAHO

- Remain faithful to pristine mandate
- Revitalize production and use of vital statistics
- Strengthen epidemiology systems in countries that avoid the “tyranny of the average”
- Progress in the development of “useful” systems and measures
“It is fitting to recall one of the objects of the Sanitary Code: ‘The stimulation of the mutual interchange of information which may be of value in improving the public health and combating the diseases of man.’

So it was in the beginning.

So it should be forever.”

George Alleyne, 1999