Risk Factor Surveillance to Support
Health Promotion and Public Health Action:
Present and Future Challenges

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Surveillance: a brief historical excursus

Roots of surveillance go back in the past. Historical traces come from the Venetian Republic: 1348 register of infectious diseases for their control. Rhode Island colony in 1741 approved an act requiring taverns to report contagious diseases among their customers. Systematic registration of infectious diseases, first in Europe (Italy in 1881, UK in 1890) and then in the US (1893-1901). Until the mid-20th century, surveillance remained mainly related to infectious diseases.

1968 the World Health Assembly: “epidemiological surveillance” broader concept, not solely linked to infectious diseases.

Few years surveillance became a global practice, serving to health systems with increasing level of complexity: public health surveillance.
Public Health Surveillance

World Health Organization defines public health surveillance as

“the continuous, systematic collection, analysis and interpretation of health-related data needed for the planning, implementation, and evaluation of public health practice. Such surveillance can: serve as an early warning system for impending public health emergencies; document the impact of an intervention, or track progress towards specified goals; and monitor and clarify the epidemiology of health problems, to allow priorities to be set and to inform public health policy and strategies.”

http://www.who.int/topics/public_health_surveillance/en/

Behavioral Risk Factor Surveillance (BRFS)

NCDs as the major challenge for public health
Risk Factors as (one) of the more attackable targets
Health Promotion and Prevention as the major tools for tackling NCDs

BRFS fundamental Information System for NCDs+Health Promotion
Behavioral Risk Factor Surveillance

Conditions stand…

**BRFS** must be
- Systematic
- Timely
- Specific
- Linked to action

*BRFS is a learning system*

BRFS as a support for decision making

An US example

*Obesity Trends* Among U.S. Adults

*BMI ≥ 30, or about 30 lbs. overweight for 5’4” person*

Source: CDC Behavioral Risk Factor Surveillance System.
BRFS as a support for decision making

An example from South Australia

Prevalence of the consumption of five serves of vegetables per day, SAMSS July 2002 to June 2007, ages 19 years and over
(vertical line denotes campaigns in 2005 and 2006)

BRFS as a support for decision making

An Italian example

PASSI (steps) : “Health Progresses by the Local Health Units in Italy”

- 57 million inhabitants
- 20 regions
- universal health care and preventive services
  → local health units (ASL): 1 unit per 300 000 residents (100 000 – 1 000 000)
BRFS as a support for decision making

All the 21 Regions are involved
Data collection started April 2007 on 149 ASL (Local Health Unit) over 85% Italian population

- Health personnel involved: 1,100
- Interviews: 30,000-35,000 per year
- Response rate: 87%
- Refusals: 9%

“think globally act locally”

Collect valuable data globally and locally to help better action

Interview carried out by local health personnel

National Preventive (and Health Promotion) Plan

To set the targets
To monitor
To evaluate
Inequalities and surveillance

**Smoking habits prevalences by study title and by difficulties to reach the end of the month**

- **Primary and secondary school**
  - Lot of difficulties: 10%
  - Some difficulties: 20%
  - No difficulties: 30%

- **College**
  - Lot of difficulties: 15%
  - Some difficulties: 25%
  - No difficulties: 40%

- **University or more**
  - Lot of difficulties: 20%
  - Some difficulties: 30%
  - No difficulties: 50%

**Body Mass Index distribution by study title and by difficulties to reach the end of the month**

- **Primary school or less**
  - Underweight: 10%
  - Normal Weight: 20%
  - Overweight: 30%
  - Obese: 40%

- **Secondary school**
  - Underweight: 15%
  - Normal Weight: 25%
  - Overweight: 35%
  - Obese: 45%

- **College**
  - Underweight: 20%
  - Normal Weight: 30%
  - Overweight: 40%
  - Obese: 50%

- **University or more**
  - Underweight: 25%
  - Normal Weight: 35%
  - Overweight: 45%
  - Obese: 55%

Well, if it is local is useful: to decide the program and how it is should be carried out.

Good to know, but: what’s the news?
Inequalities and surveillance

The importance of surveillance to understand the EVOLUTION

Social Determinants of Health and surveillance: the challenges

- It remains critical to (continuously) monitor the SDOH + to understand the mechanisms by which the SDOH operate in producing health disparities/inequities.

- We need “good” surveillance systems and ability to measure several SDOH variables and/or the capability to link information on health outcomes to the causes (risk factors) and to the measures of the “causes of the causes”, the SDOH (social and cultural capital, urban settings, to name a few, beside the classical income and education).

- We need significant resource investment on data collection and a profound emphasis on in depth analysis on SDOH.

- Research should go beyond mere description of SDOH and health inequalities should explore why and how social factors operate in producing health inequalities in order to understand how changes can be made to address the public health implications of the SDOH.
“Of all the forms of inequality, **injustice in health** is the most shocking and the most inhumane”

Martin Luther King Jr.