Community Assessment
Objectives

Week 3

Students should be able to

- describe why community assessment is important for analyzing community health status
- describe the sources the data available for such analysis
- describe how to, how to gather and present the data that affect community public health policy & funding
- describe how to to use spreadsheet and geographic analysis presentations to strengthen their presentations.
- describe data sets available to measure health status at the national, state and local level
- how to link them health data to economic status
- how to access the health care and medical care data systems and their interfaces between public & private resources.
- GIS Objectives:
  After this session students should understand the added value of epidemiologic analysis using GIS and geocoding software. They should understand the expanding use of census tracts for analyses. They should be able to explain where they can obtain data. They should understand the elements of enhanced data quality provided by GIS-related tools. They should be able to describe the major software available, including common use within the public health community.
- Competencies 1C(1,2,4,7,8) 1E (1,2,3,8,10) 1F(All) IIA (1-4)

Key Words

Community, jurisdiction, health status, health measurement, planning, goals, birth rate, infant death rate, fertility measures, community surveys, behavioral risk factors, mental health, Marc Lalonde, Kerr White.

GIS KeyWords: Maps, streets, block groups, census tracts, zip codes, ZCTA, geocoding, spatial analyses, Analysis/Visualization/Reporting (AVR), Census Bureau, Tiger files, choropleth.

Concept

Improving health outcome depends on knowledge of current health status rather than responding to medical crises.

GIS: Epidemiology concerns the distribution of disease with a space and time continuum. Geographic information systems (GIS) allow a visual display of data distribution, as well as affiliated attributes, at varying levels of geographic granularity. Additionally, GIS is being used to enhance data quality management and improve our understanding of socioeconomic factors related to public health surveillance. The use and need for GIS tools and spatial analyses of public health data is increasing, as is evidenced by the growing body of GIS-related literature.

Readings:

Essay # 3, & scan essay #6.
Schneider 2nd Edn: scan Chapter 5, 8, 11 and 24
Virginia Center for Healthy Communities
Kaiser Family Foundation: State Health Facts

Targeting Populations Using Geo-Mapping and Social Network Strategies

- How do we target populations?
- Geo-Mapping
- New York City's Experience with Geo-Mapping
- Virginia’s Experience with Geo-Mapping
- Welcome to ESRI Public Health Page, Scan the options for education and case studies in the left hand column

GIS Optional readings:


GIS Additional Readings:

1. Maxcy Rosenau 13th Edn. Chap 40 &66.14th Edn, Scan Chap. 32 & 43 and 70 Secn. C
5. MAPP – a strategic approach to community health improvement
7. A new Perspective on the Health of Canadians, Marc Lalonde. 1974

Articles


Community Assessment Presentation

Data Sources

In the mid 1970s (revs. 1995) Ivan Illich's book "Medical Nemesis" sub-titled "The Expropriation of Health" was published. His thesis was to decry the tendency to name every symptom as a discrete disease and develop an ICDA code for it, thus increasing the complexity of medical care unnecessarily, and making health assessment difficult. Look at the CDC Web Page on Assessment in Public Health.
In 1983, Marc Lalonde, then Minister of Health for Canada proposed the "Health Field Effect" noting that up to 75% of a community's health was affected by behaviors, rather than medically treatable diseases. He started the current impetus to look carefully at the whole community environment, including behavior/mental health, not just obvious treatable entities.

Review this video of a global assessment of health status.

The session has three presentations. One by Dr. Buttery, one from VDH Staff and one by Dr. Bradford. Dr. Buttery will introduce the use of geographic communities (slides, handouts). New VDH Staff will provide an introduction to GIS use in Community Assessment. Dr. Bradford's presentations will focus on an assessment of communities where the community is defined by a population with shared characteristics such as AIDS, sexual preference or Lung Cancer. Also, one of Dr Bradford's associates, Dr. Kirsten Barrett, recently completed an assessment in S.W. VA. This study is similar in scope to the report on Dr. Buttery's study of the Southside AHEC. You should compare the two and consider that Dr. Barrett's was funded in excess of $200,000, while Dr. Buttery's for the AHEC was funded for $7,500, had to use secondary data and was completed in 8 weeks.

If you don't know where you are going, you are not going to be able to measure a result which can lead to activities that will enhance the community's health. This is similar to the medical care providers who are so busy treating diseases that few of them take the time to prevent the diseases which they treat. Additionally, national and state legislatures only give lip service to funding prevention. This sends the message to insurers, that it is not worth using their money to prevent disease.

What evidence is there that diseases are preventable? Where would you look? What proportion might be preventable? Why? Again, look at Data Sources.

The World Health Organization’s definition of 'Health' includes attention to physical, mental and social well-being, not just absence of disease.

work through Dr. James May’s slides (pdf copy) on definitions and parameters of major mental health conditions affecting the population. Consider how many friends and relatives you know who have been diagnosed with and or treated for one of these conditions. Consider the resources that should be included in a community assessment to deal with these problems. Think about Illich's comments on medical diagnoses and recent statements in the media that 1 in 4 people are mentally ill.

Review two assessments performed by Dr. Buttery where the population assessed were geographically defined rather than disease attribute defined.

The 1973 Assessment, was performed for the City of Portsmouth, Virginia. The data was collected and analyzed manually. The 1998 Assessment for 17 counties in Southside Virginia was performed by computer analysis by downloading data from the Virginia Center for Health Statistics, then analyzing the combination of spreadsheets, databases and GIS (geographic Information Systems) projections. Information on GIS applications click on the Introduction to Mapping resources.

These assessments consider the following issues:

- How long does the population live?
- How well do they live?
- How much disability do they have for how long?
- What are the extremes of health and disability in the community?
- What seem to be the underlying causes of ill health?
- How do you define 'ill health'?
- What can be done to change health status?
- Whose health status are you going to affect?
- What are the costs and the benefits?
How long will change take?
Are these changes medical or social?
Is there a difference?
What is measurable?
Are you sure it is measurable?
What role does the environment play?
Who will pay for it?

**Once you believe you have answered these questions:**

How are you going to plan interventions to change health status?
Whose permission do you need?
What are the constraints to your actions?
Who must be involved in the change?
What can enable the changes?

For an example of a community assessment, scan the AHEC summary of the community assessment Buttery performed in 1998, from which several of the slides in the 1998 slide show were chosen. Why the recommendations might be unexpected.

Finally, look at the following annual reports written to a city manager more than 25 years ago. And the director's first position after completing his MPH. Which issues still remain important public health issues today? Why? How do you think we could resolve them before another 25 years pass by? Consider how useful these annual assessments of policy accomplishment were for the health of the city's residents? What contributes to these assessments? Examine what happened with the grant programs over this 6 year period.

*Annual report for 1970*
*Annual report for 1973*
*Annual Report for 1974*

Readings for to this session, Essays 3 & 6 (scan only)
Schneider: Chapter 8

*Community Assessment Bookmarks*
*Intro to GIS*