Responding to the Growing Cost and Prevalence of People With Multiple Chronic Conditions

Gerard Anderson, PhD
Professor,
Johns Hopkins Bloomberg School of Public Health
The UN General Assembly will convene a summit of world leaders in September 2011 addressing chronic conditions

“Cancer, diabetes, and heart diseases are no longer the diseases of the wealthy. Today, they hamper the people and the economies of the poorest populations even more than infectious diseases. This represents a public health emergency in slow motion.”

- UN Secretary Ban Ki-Moon
The Global Burden of Disease

- In the world, the death rate from chronic disease is double the death rate from the combination of all infectious diseases (including HIV/AIDS, tuberculosis, and malaria), maternal and perinatal conditions and nutritional deficiencies.

- By 2020, chronic diseases are expected to account for 7 of every 10 deaths in the world.

- Similar numbers for other measures of burden of disease (QALY, DALY).

Source: WHO, Global Status Report on Noncommunicable Diseases, 2010
Among OECD Countries The Emerging Problem is People with Multiple Chronic Conditions

- People with chronic conditions represent 80% of burden of disease in most OECD countries and people with multiple chronic conditions represent over 50% of burden of disease in most OECD countries
In US, More Than 60% of Health Care Spending Is on Behalf of People With Multiple Chronic Conditions

People with 5+ chronic conditions represent 21 percent of health care spending.

Percentage of Health Care Total Spending by Number of Chronic Conditions:
- 0 Chronic conditions: 16%
- 1 Chronic condition: 18%
- 2 Chronic conditions: 17%
- 3 Chronic conditions: 16%
- 4 Chronic conditions: 12%
- 5+ Chronic conditions: 21%

Source: Medical Expenditure Panel Survey, 2006
Per Capita Health Care Spending Increases With the Number of Chronic Conditions in US

Compared to an individual with no chronic conditions, spending is 14 times greater for someone with five or more chronic conditions.

Source: Medical Expenditure Panel Survey, 2006
In US, People With More Chronic Conditions Have More Unnecessary Hospitalizations

- Ambulatory care sensitive conditions (ACSCs) are conditions for which timely and effective outpatient care may help to reduce the risk of hospitalization.
- People with 5+ chronic conditions are 99 times more likely to have an unnecessary hospitalization.

Source: Medicare Standard Analytic File, 2007
Older Adults Are More Likely to Have Multiple Chronic Conditions in US

• The prevalence of multiple chronic conditions increases with age.
• One in 15 children have multiple chronic conditions.
• Almost three out of four people ages 65 and older have multiple chronic conditions.

Source: Medical Expenditure Panel Survey, 2006
For People over Age 65 in US, those with 5+ Chronic Conditions Responsible for Almost 80% of Spending

People over age 65 with multiple chronic conditions are responsible for 96% of all spending.

Source: Medicare Standard Analytic File, 2007
Data is power and tends to influence decision making.

- There is good data on infectious disease.
- More effort is needed on collecting data on the prevalence and cost of multiple chronic disease.
- Standard data collection efforts across OECD countries are needed.

Essential data components include:

- Monitoring exposures (risk factors)
- Monitoring outcomes (morbidity and disease-specific mortality); and
- Health system responses—e.g. policies promoting access & prevention.
Necessary Data About People with Multiple Chronic Diseases

- There is reasonably good data among OECD countries about individual chronic conditions BUT
- What percent of the population has multiple chronic conditions?
- How many people have 2, 3, 4, 5+ chronic conditions?
- How does spending increase with the number of chronic conditions?
- How do outcomes vary by number of chronic conditions?
- How do these numbers vary by demographic characteristics?
Areas Needing Reform That Will Make Health Care More Responsive To People With Multiple Chronic Diseases

- Biomedical Research
- Medical Education
- Financing and Delivery Systems
- Quality Metrics

Health System Changes
There needs to be an evidence base for treating multiple chronic conditions

- People with multiple chronic conditions are responsible for half of the encounters.
- Most biomedical research focuses on individual chronic diseases and not people with multiple chronic conditions.
- However, very few people with a chronic disease have only one chronic disease.

Among the elderly, only 4 percent of type 2 diabetes only have diabetes.
Problem - Randomized clinical trials often exclude people with multiple chronic conditions

- Most randomized clinical trials (RCTs) often exclude the elderly and people with multiple chronic conditions from participating.

- 81% RCTs exclude people with common conditions.
- 39% RCTs exclude older adults.
- 54% RCTs exclude people taking other medication.

Leads to a lack of evidence base for people with multiple chronic conditions.
Novel methods are needed to create an evidence base for people with multiple chronic conditions. One possibility is simply to require RCTs to include people with multiple chronic conditions in clinical trials. Other options include:

- Pragmatic Clinical Trials
- Off Label Restrictions
- Clinical Effectiveness Research
- Observational Data Methods
Medical Education Needs To Change

Percent of physicians who feel well prepared to treat people with multiple chronic conditions

AUS 69%
CAN 55%
GER 93%
NL 75%
NZ 67%
UK 76%
US 68%

Source: Schoen et al Health Affairs, 2006
Medical education continues to have a single disease approach

- Most clinical instruction is carried out by teacher-researchers with expertise in one particular disease
- Medical education tends to have a “body part by body part” orientation instead of an integrated approach.

Educational systems should make sure that they are focused on better care for people with multiple chronic conditions.
Health Care Delivery and Payment

- An ongoing challenge in the next decades will be to design payment and delivery systems that improve care for people with multiple chronic conditions.
Focus on Coordination of Care

Interdisciplinary Team

Nursing Home
Home Care
Hospital
Primary Care
Lab/X-Ray
Specialist

Patient
Does MD practice use multidisciplinary teams to treat people with multiple chronic diseases?

- AUS: 32%
- CAN: 32%
- GER: 49%
- NL: 50%
- NZ: 30%
- UK: 81%
- US: 29%

Source: Schoen et al Health Affairs, 2006
Practice Guidelines

- Quality metrics tend to focus on how the system is treating a specific disease like diabetes.
- Many clinical practice guidelines fail to adequately provide guidance for patients with multiple chronic conditions.
- Treating each individual disease according to disease specific practice guidelines may not be the best treatment for the person with multiple chronic conditions because of interactions.