Demand Side Approach to Medical School Curricula

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Objectives

- Be able to define demand side medical education, and contrast it with supply side education.
- List and understand data sources that may be used in determining medical demand, including Disability Adjusted Life Years (DALYs).
- Know the most important sources of DALYs lost for Japan.
- Discuss limitations of demand side medical education.
- List some concrete steps that could be taken to move medical education to a more demand side approach.

Demand side vs. supply side education

- First used by L. Kerr
  - Supply side – “What do medical faculties want to teach?”
  - Demand side – “What are the needs and wishes of the population we are responsible for?”
- All medical curricula are influenced by both
- This presentation is arguing for more explicit demand side input into medical education.

- Data should drive our curricula

Sources of data for demand side:

- What is the population burden of disease?
  - Mortality and morbidity figures
- What does the public want from doctors?

Population Burden of Disease

- Global Burden of Disease project
  - Combines morbidity and mortality into one index in order to bring better metrics to health system priority setting.

GBD 2010 vs. 1990

- Redefined DALYs.
- Vastly expanded data base – including morbidity and mortality, and risk factors from around the world.
- Much more patient and general public input into the weighting of morbidities.

Definition of DALY

- Years of Life Lost (YLL) + years lived with disability.
  - Years lived with disability weighted for each health state.
  - Weights determined by surveys of the general public

Worldwide top causes of DALYs lost

- Ischemic heart disease
- Lower respiratory infections
- Stroke
- Diarrheal diseases
- HIV/AIDS

High Income Asia Pacific

- Top 5 causes of DALYs lost
  1. Cerebrovascular disease
  2. Low back pain
  3. Ischemic heart disease
  4. Other musculoskeletal conditions
  5. Self harm

Top 5 risk factors for DALYs lost worldwide

- High blood pressure
- Tobacco smoking
- Household air pollution from solid fuels
- Diet low in fruits
- Alcohol use

Top 5 risk factors for high income Asia Pacific

- High blood pressure
- Tobacco smoking
- Low physical activity
- Diet low in fruits
- Alcohol use

Sources of data for demand side:

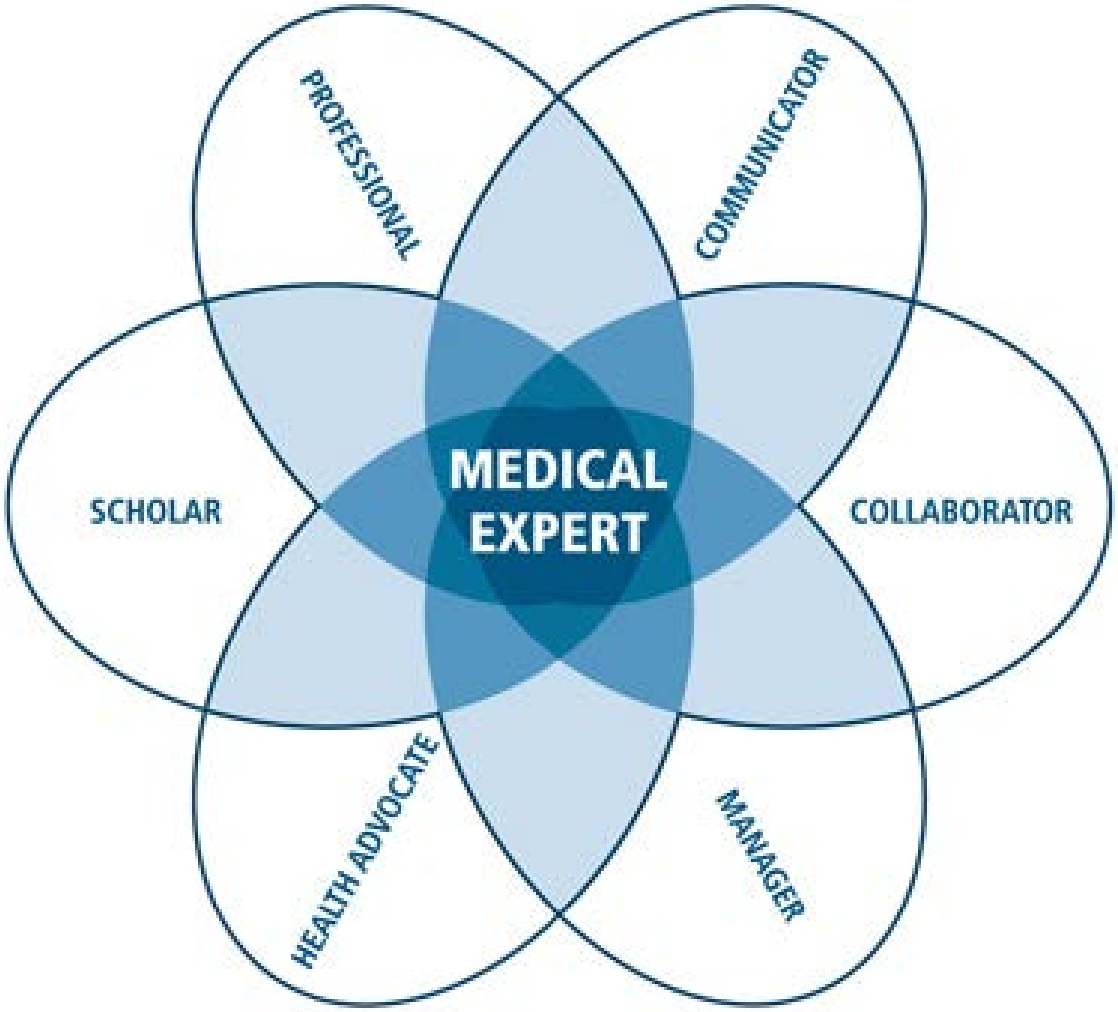
- What is the population burden of disease?
  - Mortality and morbidity figures
- **What does the public expect from doctors**?

What does the public expect from doctors?

- CanMeds
  - Developed from the “Educating Future Physicians of Ontario (EFPO)” project, involved extensive community consultation.
- Good Medical Practice (UK) – 2013
  - Wide public consultation, including interviews on the street, a TV show about a family doctor with an opportunity to write in opinions about what she should do, etc.
- Medical Council of Canada Blueprint Project
- McGill Faculty of Medicine – patient interviews

CanMeds

- Our doctors need to be more than clinical experts. They need to also be:
  - Scholars
  - Communicators
  - Collaborators
  - Health advocates
  - Managers



THE CANMEDS ROLES FRAMEWORK

Medical Council of Canada Blueprint project

- Original list of Medical Council of Canada (Canadian national licencing exam) objectives based on a list of reasons for presenting to physicians .
  - List developed by clinicians (Mandin et. al)
  - E.g.
    - Abdominal pain
    - Anxiety
    - Itchy rash
    - enuresis

Medical Council of Canada

- Exam “blueprinting” exercise.
  - 4 main sources of data
    - Data from the Canadian Institute of Health Information regarding primary causes of hospitalizations and visits to physicians
    - A survey of physicians, nurses, pharmacists and the public regarding the importance of various skills of physicians
    - The report of a panel of medical education and testing experts
    - A study of “entrustable acts” – acts that beginning residents are commonly either expected to do, or actually common do, largely in inpatient settings.

McGill University survey of patients (semi structured interviews of 58 patients)

- Our curriculum was heavily based on the concepts of
  - Professionalism and
  - Healer
- These terms were not popular with patients
- Patients:
  - Assumed clinical competence on the part of all physicians
  - Identified “someone who listens to me” as a key characteristic of a good physician.
  - Identified “someone who knows me as a person” as a key characteristic of a good physician.

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Limitations of Demand Side Medical Education

- Lack of evidence that demand side vs. supply side approach to medical curriculum has an impact on patient/population outcomes.
  - True for most curricular changes.
  - There is some evidence for primary care vs. specialist care
- Seems to give little room for the “clinician-scientist”
  - What is the role of physicians in scientific discovery/innovation?
  - Looks “backward” rather than “forward”
- There is a need to specifically address the role of other health professionals in dealing with the burden of disease and with patient needs.

Why a demand side approach?

- There in an internal need and external need (accreditation, funders) to justify our curricular content.
  - Curricula should be data driven
- The “social contract”
  - Medical schools and doctors are funded in part through taxes and given a monopoly in exchange for service to the population.

Suggestions:

- Build in burden of disease data into
  - national exam and
  - individual school, residency training and Continuing Medical Education (CME) objectives.
- Gather information on patient and public expectations and build this into
  - national exam and
  - individual school, residency training and CME objectives

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