



**Submission to**

**Productivity Commission**

**Health Workforce Study**

**By**

**Associate Professor Leonie Segal**

**Deputy Director**

**Centre for Health Economics**

**Monash University**

**August 5 2005**

---

The Terms of Reference for the Productivity Commission Health Workforce Study are extremely wide-ranging. They cover demand for and supply of the health workforce across all skill and discipline areas. Not only is this a large research area, it is one that has not been extensively studied. The literature that does exist; tends to be focused on the supply side issues; such as the distribution of the health workforce, the attraction and training of new workers, retention of the existing workforce, career paths and remuneration. There is relatively little published on the demand side, with demand invariably treated in a cursory fashion. 'Demand' is typically described in terms of rates per 1,000 population; the source of which is often obscure, or reflective of revealed demand plus 'unmet need' based on anecdote.

Modelling health workforce demand is the subject of a current program of work by the Centre for Health Economics, under the direction of A/Professor Leonie Segal. Given the nature of the health care market and the many distortions created by health funding and delivery arrangements and institutional and regulatory barriers the health workforce cannot be left to the market to solve. It also means that Demand, cannot in any meaningful sense, be established by observing market behaviour, (as noted in the Productivity Commission, May Issues Paper).

Developing an approach to estimation of workforce demand which relies on objective inputs is the purpose of the CHE health workforce research program. The health workforce model uses clinical need as the primary driver of demand – where clinical need reflects evidence on effectiveness and cost-effectiveness. The initial scope of the model is the allied health and clinical nursing workforce located in the community setting and the primary outputs are hours by skill type, which are then translated into occupational categories. The model allows for various ways that skills can be translated into occupations and services. The value of focusing on skills is noted in the Productivity Commission, May Issues Paper p.28.

The model, which is continually being refined, is described in a CHE Working Paper by Segal and Robertson, available at [www.monash.edu.au/centres/che/pubs/wp148.pdf](http://www.monash.edu.au/centres/che/pubs/wp148.pdf). (A copy of the report is also attached in the hard copy version of this submission). The model is designed to be applied in a regional context and is particularly pertinent to chronic diseases. The key components of the model are:

1. *Description of health status of the population in the Study Regions:*
  - Determine the number of people with subject health conditions, including those at risk and numbers with common comorbidities; that is distinguishing important sub-groups.
2. *Estimation of the community-based health care service requirements by skill group;*
  - Estimate hours per year per person by skill category for each disease/health problem area (and major sub-category), for community-based prevention and management of subject health conditions, drawing from recommendations contained in published Clinical Practice Guidelines (CPGs), which are also identified as cost-effective, distinguishing various skill levels where pertinent.
3. Exploration of options for translating skill requirement into occupations and services;

- 
- consider for instance possible role for generalist vs specialist, provision by skill level, role of training etc..
4. *Development of the ‘Allied health/nursing primary health care workforce model’*
    - Calculate the workforce and resource requirement to deliver best-practice cost-effective care across subject health conditions in Study Regions, by bringing together evidence from: 1) number with various health conditions, 2) skill requirement and 3) possible ways of delivering the skill requirement.
  5. *Estimation of balance between workforce demand and supply:*
    - Estimate the size of the community-based allied health and nursing workforce by skill and occupation group currently delivering services for the prevention and management of subject health conditions in the Study Regions. Compare with the requirement developed from the model (under 4);
  6. *Explore strategies to adjust the supply to meet demand.*

The model has been developed at a theoretical level. The next step is to test implementation. Funding for such a study has been sought from the Australian Research Council, through an ARC Linkage Grant. The Grant has been submitted by the Centre for Health Economics in partnership with the Department of Human Services Victoria, (and other academic groups). The plan is to test the model in relation to one disease area – diabetes and within the Barwon Southwest Health Region. The research would enable the steps involved in implementation of the model to be detailed (including identification of impediments and enablers), and provide an understanding of the adequacy of community-based health manpower to manage diabetes and related comorbidities in the Barwon Southwest Health Region. It will also report on strategies for adjusting supply to better support access to best practice cost-effective diabetes care and prevention.

Completion of such a research program would assist the Productivity Commission answer many questions posed by the Terms of Reference and as expanded in the May Issues Paper. We suggest that these matters cannot be addressed in the absence of such a research program.

The point of this submission is to inform the Productivity Commission of the work completed in developing the manpower model and the research plan for its implementation. Unfortunately the results of the research will not be available in time to contribute to the work of the Productivity Commission. However, support for such research will ensure that in the future this type of information will become available to inform policy and practice.

Associate Professor Leonie Segal  
Deputy Director  
Centre for Health Economics  
Monash University  
“The strip” Building 75  
Clayton Campus

[Leonie.segal@buseco.monash.edu.au](mailto:Leonie.segal@buseco.monash.edu.au)

Phone: 03 9905 0734