Modelling Home Care Services

to Identify Service Shortfalls

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Project Goal

• A model was built to help understand and communicate with other players in the Health sector the reasons why Home Care Employers are having difficulty hiring and retaining workers.
• The model may also serve for future planning that could prevent a severe shortfall in services as the population ages and hospitals discharge patients whose conditions are more complex.
Problem Statement

• The ageing population and shorter hospital stays require more Home Care Services.
• As more home care services are required the ability of service providers to meet service needs by hiring and retaining more workers becomes increasingly difficult.
• The more training workers receive the more able they are to seek better paying employment opportunities.
Key Variables

• Number of available Home Care providers for hire
• Number of Home Care clients requiring services
• Gap in Services delivered
• Wage gap between home care and other jobs
• Recruitment & retention rate
• Job satisfaction & stress
• Complexity of services required
• Relative attractiveness of home care
Behavior Over Time Graphs

- Number of Home Care clients requiring services
- Number of available Home Care providers for hire
Behavior Over Time Graphs

- job stress
- complexity of services

12 months
Behavior Over Time Graphs

- wage gap between home care and other jobs
- relative attractiveness of home care over 12 months
Causal Loops: Feedback

- care delivery gap
- worker productivity
- quitting rate
- home care delivery
- entitlement
- service hours per client
- complexity of services required
- wage gap
- skill level of employee required
- wage rate corresponding to skill level
- alternative employment opportunities
- Global Home Care Budget
- ability to increase wages
- Productivity of Home Care Agency
- ability of home care worker to move into other higher paying health care jobs
- investment in training
- skill level of employee
HomeCare Workers

hiring

HomeCare Clients

leaving

demand for

Wage Gap

Effect of Wage Gap on Hiring

Effect of Wage Gap on Quitting

Adjusted Service Hours per Client

Complexity of Required Home Care Services

Effect of Worker Stress on Worker Productivity

direct

referrals

Hiring Delay

HomeCare Service Provider Policy Structure Diagram

Care Delivery Gap Reduces Assessed HomeCare Entitlement pool of available homecare workers

more workers available

availability of alternate employment

workers find other jobs

clients from Hospitals
demand for Hospital workers

demand for Long Term Care Workers

Fraction of Population requiring Health Care Services

<Time>
wages paid by other health care sectors

care delivery gap demanding services providing services

stress

quitting job

satisfaction
Leverage points Identified

The following stresses were identified as requiring attention by Home Health Care providers:

– wage gap between Home Care workers & others
– productivity of Home Care workers
– skill level of Home Care workers
– competition between Home Care Providers & Long Term Care Facilities for the same workers
– demographic shifts will continue to increase the fraction of the population requiring Home Care services
– global Home Care budget
Recommended Interventions

- wages need to correspond to skill level
- do not reduce the time per visit to a point where the worker spends much of her/his time travelling between clients
- coordinate hiring and training requirement with Long Term Care facilities & Hospitals
- increased efficiencies using new technologies & management methods are needed to allow fewer workers to meet the needs of more clients
- the Home Care Budget needs to reflect the demographic population shifts
Conclusion

• The use of Systems Thinking tools will improve communication between the Health Care sectors.

• It is hoped this investigation of the interrelationships and feedback processes will allow local Health Care Policy makers to deal with stresses on the System.