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September 25, 2000

The Hidden Costs of Privatization: An International Comparison of Community Care

Introduction

Health care is near the top of every country's public policy concerns. Within this larger debate, one of the key points of controversy is how to apportion roles to the public and private sectors. This debate has continued for over one hundred years in Canada but there is now considerable experience to guide us.

In North America a natural experiment in health care finance has occurred during the past 50 years. Canada instituted universal, publicly funded coverage for most hospital and medical care while the United States instituted public funding only for the worst health risks (the elderly, persons with certain chronic illnesses, and those on social assistance). The two countries certainly have many distinctions (vive le difference!). However, they are more alike than virtually any other two countries in the world and they had, up until around 1950, very similar health care systems. Canada implemented national hospital insurance in 1957 and by 1971, all provinces had implemented public medical insurance. The overall comparison shows that Canada won on both costs and quality. Up until 1971 both countries spent a little more than 7% of their economies (or GDP) on health care. However, by 1997 Canada spent 9.0% and the US spent 13.5%. (Anderson 1999) Almost half of this difference in costs is due to much higher administrative charges in the US system. (Woolhandler 1993, 1996)

Traditional health status measures such as infant mortality were worse in Canada in the first half of the century and are better now. However, these are relatively crude measures of health system performance because they are more affected by general socioeconomic conditions. Overall, Canadians have much better access than Americans do because in the United States, 44 million have no health insurance and tens of millions of others have inadequate coverage for serious illnesses. (Consumers Union 2000) As a result 500,000 Americans declare bankruptcy every year because of health care bills. (Wordsworth 2000) Canadians also have more doctors' visits (Welch 1996) and hospital days (Redelmeier 1993). Canadians even consume more of certain high technology services as bone marrow transplants. (Silberman 1994) Finally, Canadian outcomes are as good or better than those in the US for most services including cancer treatment. (Gorey 1997, Keller 1997)

At a population level, the more private funding the worse the outcomes and the higher the costs. It also seems clear that moving acute care to for-profit companies is generally associated with decreased quality and increased costs. Four recent population level studies in the United States are particularly informative:

- Himmelstein et al. (1999) concluded that for-profit US health maintenance organizations (HMOs) rated lower than not-for-profit HMOs on all 14 quality indicators measured by the National Committee for Quality Assurance. Their study covered 329 HMOs representing 56 percent of all United States HMO enrollees. The authors estimated that there would be an extra 5,925 breast cancer deaths annually in the United States if all HMOs were for-profit.

- Garg et al. (1999) investigated all dialysis centres in the United States. They concluded that patients receiving care at for-profit facilities had 20 percent higher death rates and were 26 percent less likely to be placed on a waiting list for renal transplantation than those attending not-for-profit centres.

- Woolhandler (1997) analyzed 1994 data from all 5,201 acute care hospitals in the US. They found that for-profit hospitals were 25 percent more expensive per case than public facilities. Private not-for-profit hospitals were in the middle. Fifty-three percent of the difference in cost between public and for-profit hospital care was due to higher administrative charges in commercial facilities. The researchers also found that administrative costs were increasing much faster in for-profit facilities.

- Silverman (1999) used data from the entire American Medicare program, which insures people 65 years and older, and found that health spending was higher and increasing faster in communities where all beds were for-profit compared with communities where all beds were not-for-profit. Spending was growing fastest in those communities that had converted all their beds to for-profit care during the study period. Spending fell the most in those communities, which converted all their beds to non-profit care.

Recent rhetoric claims introducing more private markets in health care finance and delivery would led to more efficient health care. (Hasan 1996, Leslie 2000) However, the reality is the opposite. Overall, more private finance would decrease access and quality while increasing costs. It is often assumed that for-profit companies wring efficiencies by eliminating unnecessary production costs. However, Silverman's work (1999) and economic theory strongly suggests that for-profits will find it much easier to expand revenues than to decrease costs. From Justice Emmett Hall's 1964 Royal Commission on Health Services to the Prime Minister's National Forum on Health which reported in 1997, Canadian inquiries have consistently concluded that health care is not a normal market good. Asymmetry of information between providers and patients prevents the consumers of health care from being fully informed, a key factor for the establishment of any market. The consequent public policy reactions of legislation and regulation (for doctors, hospitals, drugs, etcetera) which are necessary to protect consumers, present further barriers to the establishment of a traditional market.

As a result of these special features to health care markets, commercial enterprises tend to find it more profitable to preferentially select healthier clients, deny needed care, and sell questionably appropriate services than to improve efficiency. (Evans 2000)

Externalities

Externalities are costs or benefits of production, which do not accrue to the producer or a consumer of a product or service. Evans (1984) has described externalities as:

> "One person or organization's behaviour may affect others, independent of any voluntary transaction. My playing of loud music at night disturbs your sleep; my refusal to be immunized increases your chance of getting polio, my failure to wear seatbelts increases your taxes to pay my hospital bills. Conversely my beautiful garden not only gives you pleasure, but raises your property value. Insofar, as my behaviour fails to take account of such effects, because others have no way to induce me to respond to their preferences, I will (from a society-wide perspective) over-(under) indulge in activities with negative (positive) externalities."

Economic theory would suggest that for-profit companies would be more likely to indulge in activities with negative rather than positive externalities. Especially publicly traded companies cannot afford to provide positive

externalities because (other things being equal) such actions would put them at a competitive disadvantage compared with those firms, which did not provide positive externalities. For example, it is often less expensive for "dirty" industries to release their pollutants into the environment than to pay the costs of pollution reduction. The costs of environmental degradation may include human health problems, loss of land for other uses (e.g. agriculture, recreation) or simply the loss of the quality of life associated with a clean natural environment. If a company tries to act conscientiously and protects the environment it may well be run out of business if its competitors degrade the environment and offer lower prices. It is exactly this reasoning which has led to much greater regulation of the environment in the past 30 years. Progressive companies also tend to demand tighter regulation to "level the playing field".

In a similar fashion, for-profit health care organizations have an incentive to avoid costs of production where they can, even if these actions raise costs for other individuals or society as a whole. It would be expected that commercial enterprises would relatively underspend on such externalities as research, education, community planning, and volunteers. There are also benefits that accrue to society from the sense of altruism associated with the knowledge that one's society cares for its most vulnerable citizens. Health care is a key part of our national identity, particularly in English Canada. Canadians like to consider themselves a caring people sometimes in contrast to our American neighbours who are viewed as more aggressive, commercial, and less caring of the disadvantaged.

Why are we rushing to profitize our long-term care and home care services?

Presently in Canada, 70% of health care funding comes from public sources, a decrease from 78% in 1975. There is considerable difference between sectors. Over 98% of physician funding is public and over 90% of hospital funding is public but public funding accounts for less than 50% of expenditures for prescription drugs and continuing care (CIHI 1999). As Canada has increased the share of health care privately financed in the 1990s, this has led to poorer performance of the system. Dr. Julio Frenk, a director with the World Health Organization, noted after the WHO had ranked Canada thirtieth on its survey of 191 national health systems, that Canada lagged behind other nations because it had eroded its universal health care system with more out-of-pocket charges. (Kenna 2000) Dr. Frank further observed, "Canada with 70 percent of total health care expenditures being public is the lowest of the G-7 industrial nations outside the United States."

There has historically been little for-profit delivery of acute care services in Canada. However, Canada does have a mix of non-profit and for-profit organizations providing home care and long-term residential care and the provinces have recently increased the proportion of services delivered by for-profit providers. Given the evidence from the acute care literature, this is unlikely to be wise policy direction. This paper examines the international research literature comparing the relative performance of for-profit and non-profit continuing care organizations. The literature was reviewed for the impact on costs, quality of care, and such intangibles as volunteers, and civic society. The overall results are shown in table 1. At the end of this paper, lessons are drawn for policy-makers and others interested in this field.

Methods

The impact of for-profit delivery was investigated through a search of the scientific literature and contacts with experts in the field. The database of the US National Library of Medicine was searched for peer-reviewed, comparative studies of for-profit ***vs*** non-profit long-term care (institutional or home-based), which examined quality of care (structure, process, or outcome), economic outcomes, or other outcomes (e.g. impact on volunteers) and were published after 1980. References were traced. Published authors were contacted for additional studies. Interviews were conducted with experts in Canada, the United States, the United Kingdom, Australia, and New Zealand. The published literature was also searched for review articles and editorials.

Results

Overview of literature

The literature search resulted in the retrieval of 43 peer-reviewed, comparative studies, which examined institutional services. There were 9 peer-reviewed, comparative studies, which examined home care services.

Most of these studies are cross-sectional in nature and use multivariate statistical methods to investigate associations between ownership classification and financial, quality or other outcomes. The quality of the studies is quite variable (more about this in the discussion section). Only 2 studies are from Canada with 46 from the US, and 4 from other jurisdictions.

Long-term residential care

Quality of care

Overall, the literature found that non-profit long-term care institutions provided higher or equal quality of care. There were only a few examples of for-profits providing better quality of care. However, most studies rely upon structural and process indicators with few studies reporting on actual patient outcomes.

Thirty-nine studies reported on quality of care. Quality can be defined according to structure, process, or patient outcome. (Donabedian 1968) Donabedian's framework conceives that appropriate structures lead to appropriate care processes, which then lead to better patient outcomes. In general, the health care quality literature initially focussed on structure and process but more recently has highlighted the importance of outcomes. However, outcomes comparisons are methodologically more difficult to complete.

Studies of structure of care

Four studies investigated physical plant and environmental characteristics and all found in favour of non-profits. Nyman (1988) found that non-profit institutions had better room maintenance and plant maintenance. Lemke (1989) and Gardiner (1999) found that patients in non-profits had more control over their physical environment. Greene (1981) found that non-profits spent more on food than for-profit institutions.

As reported in the cost section, the literature indicates that non-profit institutions tend to have more staff and a higher staff mix than for-profits. Non-profits also tend to provide higher remuneration. These factors and the higher involvement of staff in the development of care-plans are associated with decreased turnover. Residents value staff continuity because they assist in the performance of intimate personal tasks. Continuity has also been found to improve outcomes for long-term care (Cohen-Mansfield 1997, Spector 1991), primary health care (Wasson 1984), and home-care wound management (Turner 1994).

Four studies reported on staff turnover and all found that non-profits had lower turnover rates. (ANA 1991, Banaszak-Holl 1996, Rosko 1995, Spector 1991) Studies of personnel turnover indicate that turnover can be reduced through better wages and benefits, involvement of lower paid workers (like nursing aides) in care planning, and continuing education. Non-profit homes tend to have more of these positive factors than for-profits.

Administrators also have higher turnover rates in for-profit homes. (ANA 1991) This can lead to poorer quality of care as well. Dwore (1996) found that for-profit hospitals also had higher turnover of chief executive officers than non-profit hospitals.

Studies of process of care

Completion of advanced directives can improve quality by tying care provision more closely to resident and family preferences and values. Castle (1998D) reported that non-profit nursing homes were more likely than for-profits to complete living wills and "do not resuscitate orders" for their clients than for-profits after the implementation of the US Patient self-determination Act. The completion of these advance directives was associated with having more staff.

Castle (1997-8B) reports that non-profit nursing homes were more likely to have pain management programs but less likely to have specialized hospice programs than for-profits. Castle (1998B) reports inconsistent differences according to ownership for provision of mental health services. The raw data showed increases in mental health evaluations and treatments in non-profits but analysis by logistic regression showed inconsistent direction of differences according to such factors as size, chain status, and certification. (More about this point in the discussion section.) Castle (1999A) found that for-profit homes were more likely to use anti-psychotic drugs (although not anti-anxiety or antidepressant medication) while no difference was found in psychotropic drug use between the different facilities (Castle 1999B).

All US nursing homes are inspected annually by federal inspectors.[1] Three studies have investigated the relationship between citations of deficiencies by federal inspectors and ownership status. All three have found that non-profit institutions were less likely to be cited for deficiencies than for profits. (Holmes 1996, Castle 2000, Harrington 2000B).

Studies of patient outcomes

One Canadian study has reported on outcomes of care (Shapiro 1995). Shapiro's study of Manitoba continuing care investigated the likelihood of hospital admission for eight conditions, which should be sensitive to the care provided by long-term care institutions. Her group found that non-profits had lower admission rates for four conditions (dehydration, pneumonia, falls, and fractures) and similar rates for the other four (anemia, urinary tract infection, gangrene, and decubitus or skin ulcers).

Five other studies looked at decubitus ulcers and two found lower rates in non-profits (Aaronson 1994, Mukamel 1997) while three found no difference (Mukamel 2000, Rosko 1995, Spector and Fortinsky 1998). It might be that the overall rate of decubitus ulcers was too low in the Manitoba study for the investigators to have found a true difference.

The use of restraints is increasingly seen as an indicator of poor quality care (Castle 2000). Restraints are usually intended to protect clients whose poor judgement might lead them into dangerous situations. However, restraints have been found to be associated with increased incidence of accidents and fractures. Four studies reported on the use of restraints by ownership status and two found lower use in non-profits (Castle 1998C, Mukamel 1997) while two found no difference (Aaoronson 1994, Rosko 1995).[2] Castle (1998C) in a study including all US federal certified nursing homes concluded that non-profits were much more likely to be restraint free. In another study of restraints, Castle (2000) concluded that non-profit nursing homes were less likely to be cited by federal investigators for deficiencies in the use of restraints.

Mukamel (1997) found that non-profits had higher rates of dehydration but cautioned that this indicator probably isn't valid because it fails to distinguish between poor care (e.g. failure to ensure adequate fluid intake in a disabled, cognitively impaired client) and serendipity (e.g. rapid fluid loss due to acute illness). This was the only case in the literature retrieved where for-profit homes had better results on any morbid quality indicator.

[1] The inspections are repeated within 9 to 15 months.

[2] However, Aaronson and Rosko both used the same database and, therefore, their work could be considered to be one study.

Spector and Seldon (1998) studied all US nursing homes with a 1987 data set and found that residents in non-profit nursing homes were statistically significantly less likely to develop an infection than residents in for-profit facilities.

Davis (1993) investigated Kentucky nursing homes using a quality index composed of rates of decubitus ulcers, urethral catheterization, use of restraints, chemical restraints, and drug errors. He found that non-profits had statistically significant better performance on the overall index. He did not disaggregate his index into its components for separate analysis.

Intrator (1999) investigated continuing care facility characteristics associated with hospitalization of residents in 253 nursing homes in 10 states. She found no statistical differences in the hospitalization rates of residents in for-profit or non-profit institutions. She did find that increased physician involvement and the use of so-called "physician extenders", e.g. nurse practitioners, did decrease the hospitalization rate. Non-profits were more likely to have more physician involvement or the use of "physician extenders".

These studies typically controlled for socio-economic status by using percentage of Medicaid[1] patients and percentage of private pay patients as independent variables.

Quality of care -- mortality

Usually mortality is the gold standard indicator of quality of health care. Operative mortality and institutional mortality is often used to assess acute care services. However, most Canadians resident in continuing care institutions are over 85 years of age and their prime concern (and those of their families) is quality of life not necessarily life extension. Therefore, mortality is not a particularly useful indicator of quality of long-term care.

The issue of mortality in long-term care was highlighted in a recent Canadian study of advanced clinical directives. Advanced directives offer older people and their families an opportunity to chose the level of intervention, which they wish before a life-threatening illness develops. Hamilton geriatrician, Dr. Willie Molloy (2000) recently completed an experimental investigation of an advanced directive. He found that many residents of continuing care institutions did not want acute care if they became ill. Three Ontario nursing homes were randomly allocated to an experimental group, which used Molloy's LET ME DECIDE directive and three were used as controls. After 18 months of follow-up, there were similar numbers of deaths in both groups but the LET ME DECIDE nursing home participants used 61% fewer acute hospital days. The investigators estimated that overall health care costs were 33% lower for the participants in the LET ME DECIDE homes than for the controls.

Another methodological issue is that deaths may be reported as occurring outside of the continuing care institution if the patient was transferred to hospital prior to death. The presence of palliative care services might bias that institution to having more deaths than others. (Spector 1991)

Therefore, it is difficult to use mortality as an unequivocal quality indicator in continuing care. In some cases a death might represent poor quality care while in other circumstances it might represent good quality care. The literature indicates a mixed picture for mortality in continuing care institutions by ownership. West (1983) conducted one of the few cohort studies in this comparative literature. She followed residents after they had been admitted to Dallas-area nursing homes and found that non-profits had strikingly lower seven-month mortality rates than for-profits (15% vs. 46%). Spector and Seldon (1998) and Castle (1997-8A) also found a reduced risk of death for residents of non-profits. However, Spector (1991) and Zinn (1993) found higher death rates in non-profits and four studies found no difference in death rates including a Manitoba study conducted by Evelyn Shapiro (Bell 1990, Shapiro 1995, Castle and Shea 1998 Mukamel 2000).

There is more consideration of these methodological issues and others regarding the measurement of quality in the discussion section of this document.

Costs

[1] The US Medicaid program provides coverage to those meeting certain low-income criteria.

Overall it appears that for-profit institutions have lower per diem costs but there are important limitations to the literature in this area. In particular, none of the studies estimated overall health care costs but rather only the costs of residential care. Secondly, it may well be that the lower costs of for-profits are due to poorer quality.

Overall 14 studies reported on costs. None of the studies reported on overall health care costs. All focussed only on the costs of care for the institution. Thirteen of fourteen studies found that for-profit care cost less per patient day than non-profit care while the other found no difference in costs. However, it is very disappointing that no study reported on overall health care costs. Residents of long-term care institutions have high utilization of hospitals, medical care, and pharmaceuticals. Less care or poorer quality care within a residential institution could translate into higher costs in other parts of the system. Also, for-profit companies can reduce the costs of certain kinds of care to attain business while increasing prices for other services, which may be less price sensitive.

Probably the best guidance on this issue comes from Silverman (1999), mentioned previously. Silverman concluded that introducing for-profit hospitals increased overall community health care costs. Even if per diem rates are lower, it appears that for-profits can shift costs to other parts of the system (perhaps because they have less effective regulation). Health spending was higher and increased faster in communities where all beds were for-profit compared with communities where all beds were not-for-profit. Spending grew fastest in those communities that had converted all their beds to for-profit care during the study period.

In the literature, the main reason for the lower costs in for-profit residential care was lower costs for staff. Ten of twelve studies, which investigated staffing, found that staff costs were increased at non-profit institutions while the other two found no difference. All three studies, which reported on wages and benefits, found higher remuneration at non-profit institutions. (Gertler 1994, Hughes 1993, Rosko 1995)

Six of seven studies which reported on staff mix found a richer, better-trained combination of staff in non-profits (Cohen 1996, Elwell 1984, Gertler 1994, Harrington 1998, Harrington 2000B, West 1983) while the other study found no difference in mix (Harrington 2000A). These studies found that non-profits had more hours of licensed nurses, physicians, and, so-called "physician extenders" (nurse practitioners and physician assistants). Non-profits also spent more on training of staff.

Two Canadian non-peer-reviewed reports support the conclusions in the published literature. A study by the Ontario Association of Non-Profit Homes and Services for Seniors found that Ontario non-profit institutions had higher expenditures per patient day than for-profit homes (OANHSS 1997). The non-profits spent more on nursing care but less on overall administration. A 1995 OANHSS study showed that the mainly non-profit municipal homes for the aged paid higher wages and benefits than the Province's mainly for-profit nursing homes.

Home care

Quality of care

Overall, the scant literature in this area indicated higher or equal quality of care from non-profit home care agencies than for-profit companies.

Studies of structure of care

Three studies reported on the structure of care and all found in favour of non-profit services. (Hollander 1994, Schmid 1993A, 1993B). As mentioned previously, turnover leads to poorer quality of care. Hollander (1994) reports that annual homemaker turnover was lower in British Columbia non-profit home care agencies than for-profit agencies (37% vs. 50%). Schmid (1993A) reports lower annual turnover in Israeli non-profit home care agencies than for-profit firms (13% vs. 23%). He also reports lower absenteeism and fewer complaints about non-profit staff. Non-profit agency administrators were more likely to monitor their staff and make "surprise visits" to clients' homes. Schmid (1993B) reports that Israeli non-profits provided better fringe benefits and more inservice training than their for-profit counterparts.

Studies of process of care

Only one study reported on process of care. Shuster (1991) interviewed nurses with for-profit and non-profit home nursing agencies and concluded that their time allocation was similar.

Studies of patient outcomes

Only one study reported on outcomes. Schmid (1993c) interviewed clients of Israeli for-profit and non-profit home care agencies. He concluded that clients of non-profit agencies were more satisfied with their care. Clients of non-profits rated these agencies as adapting better to working in clients' homes.

Costs

Three studies compared costs between for-profit and non-profit home care agencies and all concluded that non-profits had lower costs.

Williams (1994) used data from interviews with a US nationally representative sample of 921 home care patients. He found that for-profits had higher costs than private non-profits, which, in turn, had higher costs than public agencies. Overall, Williams concluded that similar patients accrued four times the charges from for-profit firms than they would from public home care agencies. This cost difference was due to increased numbers of visits from for-profit home care staff. At the time, home care was reimbursed on a fee per visit basis so there was an incentive to provide more intensive and longer servicing.

Schlenker (1995) investigated the costs of home care services delivered by capitated organizations (health maintenance organizations) and fee-for-service organizations. He concluded that regardless of payment modality, for-profits had higher costs. Leon (1997) concluded that comparable US home care patients had 31% higher costs if for-profit providers cared them for.

While there have not been any peer-reviewed published studies on Canadian home care costs, there is indirect evidence that for-profit care is more expensive. In 1997, the Manitoba government attempted to contract out 25% of Winnipeg's home care services to the for-profit sector. (Krueger 1997, Shapiro 1997) Even though originally 30 for-profit firms had displayed interest, ultimately, only Olsten applied for a contract. Furthermore, Olsten withdrew after only six months because they could not make money on what was being paid for public sector care.

Other differences between for-profit and non-profit home care

There are several examples of the beneficial externalities which accrue from the non-profit provision of long-term care and home care, including research, education and training, integration of care, volunteers, and reduction of the costs of regulation.

Research, education and training

These areas are now under pressure because providers are increasingly unwilling to provide these functions without specific funding. For-profit firms are much less likely than non-profits to provide continuing education and training to their staff. Such continuing education is correlated with improvements in quality of care. As a result, the public sector or individual workers will have to provide the resources for such education and training.

Integration and coordination of care

Another externality is community planning for integrated care. Even in parts of Canada with regional health authorities, continuing care is provided by an array of for-profit and non-profit agencies with the involvement of groups representing caregivers and consumers. There is a need to bring organizations together and plan community networks. Banaszak-Holl (1998) examined the development of community care networks in the United States and concluded that non-profit agencies were central for planning networks and coordinating referrals.

Volunteers

Volunteers are extremely important to Canadian health care organizations. Over one million Canadians volunteer in health care organizations providing millions of hours of unpaid labour. (Volunteer Canada 1998) An American study estimated that volunteer time equaled 8% of the paid workforce hours. (Wolff 1993) In the United States, more than 80% of volunteer time goes to non-profit organizations where it represents 70% as many hours as paid labour.

There is no peer-reviewed study, which compared volunteers in long-term care or home care by ownership, but Wolff studied volunteers in Wisconsin hospitals. Her group found that, of those 55% of volunteers, who had a preference, 99% preferred to volunteer at non-profit organizations with 1% preferring for-profits.

Fraud and the cost of regulation

Fraud has never been documented to be a serious problem in Canada's health care system. However, in the United States fraud and improper claims submission was identified as a major problem in the 1990s. The world's largest health company, Columbia/HCA owns approximately 400 hospitals and has annual revenues in excess of $20 billion (US) Columbia. Since 1997, Columbia has been under investigation by the US Justice Department for fraudulent billings to Medicare, Medicaid, and other US Federal programs. On May 18, 2000, Columbia and the Justice Department announced a tentative, $745 million (US) partial settlement for alleged fraud committed by Columbia's hospitals, laboratories, and home health agencies. (Brinkerhoff 2000, Eichenwald 1997)

Fraud also led the US government in 1997 to place a moratorium on approving new home health agencies for their Medicare program. While non-profits have also been guilty of improper claims submission (Pear 2000), the main offenders have been for-profit firms and individual providers. There are signs that the new American regulatory efforts may have reduced fraud and improper claims submission in the US (Thornton 1999). However, there has been a considerable increase in non-patient related costs to ensure compliance with new regulatory standards. (Cantone 1999, Eiland 1999). This adds to the already heavy administrative charges within the US health care system.

Discussion

Limitations of the literature

Lack of Canadian literature

Only two of the comparative studies are Canadian. The vast majority of peer-reviewed studies are from the United States. However, both Canada and the United States have mixed public and private funding for long-term care and home care as well as mixed for-profit and non-profit delivery. Even if the American literature is not immediately transferable to Canada it does bear serious analysis and study.

Weak research designs

Most of the comparative studies in the literature use rather weak designs. Almost all the investigators used retrospective (e.g. cross-sectional) methods. There are few prospective studies.[1] Cross sectional studies generally provide less valid results than other research designs. (Sackett 1991).

The investigators have generally used a number of multivariate statistical methods to isolate the impact of certain independent variables from others. However, multivariate methods are limited in their ability to deal with complicated chains of causation. For example, the literature indicates that non-profit services tend to have more staff and a richer staff mix with more expensive personnel (e.g. licensed nurses and physicians). If a study investigates the impact of various factors on quality (e.g. decubitus ulcers or preventable hospital admissions) and controls for staffing then the relationship between ownership and quality might be obscured. This conclusion would be fair if

[1] There are few cohort studies and no randomized trials.

there were no causal relationship between non-profit status and increased staffing. However, it seems that non-profit ownership directly leads to higher quality staffing. This is problem is sometimes referred to as "overcontrolling".

In a similar fashion, some recent studies have investigated the impact of various factors on the deterioration of physical function by using last noted function as the baseline. (Mukamel 1997, 2000) However, Arling (1997) observes that if previous function is related to previous performance by the institution then one should not completely control for this variable in the investigation.

While better statistical methods could improve the validity of these cross-sectional studies, it would be preferable to have stronger research designs initially. In fact, it seems that it should be reasonably easy to replicate West's (1983) cohort study where patients were followed prospectively upon admission to a variety of Dallas area nursing homes. In most provinces the current protocol for admission to a long-term care institution gives the institution relatively little choice about who they admit and residents are now prospectively rated for dependency. These assessments, primarily being conducted for administrative purposes could be used to control for entry case-mix. The chronological history of initially comparable residents living in different kinds of institutions would provide many useful insights, which could be used to improve the quality of continuing care.

Measurement of quality

In other areas of health care, quality indicators are easier to develop. For example, mortality is typically the "gold standard" indicator for quality studies in acute care (e.g. cancer, heart disease). However, as mentioned previously, the priority for most residents of long-term care institutions is quality of life not mere survival. The same analysis applies to some hospitalizations. A hospital admission may represent good care or bad care for a continuing care patient.

The US system has been developing indicators for quality, which track outcomes and are constructed from administrative data. One of the leaders in this emerging research area, Dana Mukamel (1997) from the University of Rochester has identified that meaningful quality outcome measures should have four properties:

1. The measure should be either a desirable or an undesirable outcome.
2. It should be based on an outcome that can be affected by health and nursing care.
3. The quality measure should be based on the average outcome rate for a sufficiently large sample of patients treated by the same provider.
4. The measure should account for factors that affect the probability of the outcome but cannot be controlled by the provider.

These criteria are sensible but they are difficult to implement. Given the size of most institutions and the infrequency of some key indicators (e.g. decubitus ulcers), it is particularly difficult to comply with point #3. Because of the difficulty of reliably and validly measuring outcomes, some observers recommend using structure and process indicators, which are strongly linked with outcomes. In any event, it is clear that Canada needs to develop more reliable and valid indicators to measure the performance of long term care and home care.

Measuring costs

Health economists identify the importance of measuring overall costs as well as those, which pertain to specific payers relevant to the study question at issue. (Drummond 1997) However, none of the 17 studies, which examined costs (14 for institutions, 3 for home care) reported overall costs. All reported only on the costs for long-term care or home care, typically reporting costs per patient day. However, users of continuing care services are high users of acute care, medical care, and pharmaceuticals. It is also readily apparent that improvements to the quality of continuing care can save overall health care costs. (Molloy 2000) Therefore, it is difficult to use the information from the costing studies because they are not comprehensive.

Conclusions

Quality

Overall quality appears to be better with non-profit service delivery. This difference appears to be related to better staffing in non-profit services. Non-profits tend to have more staff and a richer staff mix with higher numbers of licensed nurses, physicians, and physician extenders (nurse practitioners or physician assistants). Increasingly, researchers and policy-makers are focussing on staffing as an easily measured metric for quality of care. Given the very high dependencies of the persons who receive most continuing care services, having adequate numbers of properly trained staff appears to be fundamental to quality of continuing care and reducing costs in other sectors of health care. This research has led the Clinton administration to recommend new staffing rules for nursing homes, which receive federal funding. (Pear 2000)

Costs

The published, peer-reviewed, comparative literature used in this study is limited in its ability to answer questions about costs. None of the studies cited measured total costs so the conclusions that non-profit long term institutional care costs more or, that non-profit home care costs less cannot necessarily be considered valid. The best guidance to these questions come from population-level studies such as Silverman et al. (1999) which have concluded that the greater the penetration of for-profit care into a community, the greater the health care costs.

There are also reports of clients (especially home care clients) being pressured by for-profit providers to purchase additional services. Bruce Vladeck, then the director of the Health Care Financing Administration (which administers the US Medicare Program) testified before a senate committee in June 26, 1997 on the problems of fraud:

> "The 'invisibility' of the home health setting invites profiteers to prey on disabled elderly patients who may often be isolated, uninformed, and lacking the support of friends and family. We are finding continuous problems with unnecessary home health services. In home health settings the physical isolation of the beneficiary is often an open invitation to unethical providers seeking ways to provide care based on financial incentives, rather than care that is actually needed." (Vladeck 1997)

In Canada, there were concerns raised in the debate about Alberta's bill 11 that some doctors were suggesting patients pay more to get faster service or so-called "enhanced services". (Taft 2000) There have also been anecdotal reports of home care recipients being pressured to purchase enhanced services from private vendors. (Shapiro 1997) Finally, Fuller (2000) notes that Dynacare Health Group and Comcare Canada (two for-profit health care companies) have formed Danapharm Clinical Research Inc. (DCRI) to oversee a variety of services for pharmaceutical companies including recruiting patients for clinical trials. In its promotional material, DCRI claims that, "Our parent companies, Comcare Canada Ltd. And Dynacare Health Group Inc. provide DCRI with easy access to community-based home health…"[1]

This analysis is in keeping with the theory that for-profit health care companies will find it easier to enhance profits by expanding revenues rather than controlling costs. (Evans 2000) As noted by many analysts, health care is different from other consumer goods because it is usually very difficult for consumers to compare prices and quality the way they do with other consumer goods. (Evans 1984) Furthermore, particularly for institutional services there are other barriers to

[1] Found at http://www.centerwatch.com/provider/prv24.htm

full functioning markets. Hirth (1999) claims that it is often traumatic for residents to switch long-term care institutions and notes, "Thus, long-term care has the character of a once-and-for-all purchase."

It may be difficult for consumers of health care services to know whether various "service enhancements" are really worth the price. It may be particularly difficult for consumers to refuse such purchases when they may feel they risk offending their landlord and caregivers.

Regulation costs come from patient care

As mentioned previously, for-profit care requires more regulation than non-profit care and these resources come from funds which otherwise would be available for patient care. Non-profit care also requires regulation. However, the costs of regulation (establishment of standards, monitoring, enforcement) are lower for an institution operated by a non-profit organization (regional health authority, religious denomination, or community group) than for an institution operating within a complex economic environment featuring public/private finance and competing for-profit institutions.

For-profit care and Civic Society

Finally, policy-makers are increasingly concerned about the "civicness" of our modern society. Connections between individuals and community organizations are increasingly noted as knitting society together. (Putnam 1993) Putnam, in his study of Italy's regions, notes that those regions with greater civicness developed more effective government services (e.g. day care centres, health clinics) which reinforced civic spirit. Non-profit health services attract more volunteers, play the major role in planning community networks of services, and provide more support for research and education. Canada has a long tradition of non-profit health care services, which are integral parts of our communities. It would be a shame if Canada lost these bastions of our civic society.

Table 1. Impact of for-profit services on continuing care

Long-term Care Institutions	Home care Services
Health care costs Government costs ***reduced initially then may well increase*** Overall costs ***likely to be increased***	**Health care costs** Government costs ***likely to be increased*** Overall costs ***Likely to be increased***
Quality of care Patient outcomes ***worse*** Staff turnover ***increased***	**Quality of care** Patient outcomes ***worse*** Patient/family satisfaction ***worse*** Staff turnover ***increased***
Intangibles Continuing education ***decreased*** Volunteers ***likely decreased*** Civil society ***likely decreased***	**Intangibles** Continuing education ***decreased*** Volunteers ***likely decreased*** Civil society ***likely decreased***

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