

The Effect of For-Profit Laboratories on the Accountability, Integration and Cost of Canadian Health Services

Abstract

Canadian public health systems pay for-profit corporations over a billion dollars a year to provide essential medical laboratory services. Canada's history of using the private sector to deliver laboratory services is a useful window on the effects of using for-profit corporations to provide publicly funded services. Private laboratory companies are less accountable and transparent than public providers which makes public debate on laboratory policy more difficult. Using for-profit laboratories hinders integration and increases the cost of laboratory services. Two useful steps towards ending for-profit provision would be to stop fee-for-service funding and integrate all laboratory work under the same public administrative structures.

In 2012 Canadian governments will pay private corporations over a billion dollars for medical laboratory services making them among the most privatized of Canada's essential medical services (British 2010; Jamieson 2010; Ontario 2006; Rondeau 2010).ⁱ Three multinational companies, LifeLabs, Gamma Dynacare and Canadian Medical Laboratories (CML), will receive the lion's share of this money. Canada's forty-year history of using the private sector to deliver this core medical service in five provinces provides a useful window on the effects of using for-profit corporations to provide publicly funded medical laboratory services.

Consideration of this issue is particularly relevant because, despite calls from the *CMAJ* to move beyond the public-private debate, it is alive and well (Canadian 2007). Whether health care services should be provided by public, non-profit providers or by the private, for-profit sector remains one of the more contentious questions in Canadian public policy.

Canada is not alone in using for-profit companies to provide some portion of its medical laboratory services. The United States uses hundreds of different corporations to provide the bulk of its services. Australia, which is similar to British Columbia, Ontario and Manitoba in the financing and ownership structure of its laboratory services, uses private companies paid fee-for-service from a national public insurance program to provide most community laboratory services while inpatient services are paid for out of hospital budgets, which are funded by the individual states (Medical 2011). Britain has just started to use for-profit providers as part of its efforts to bring market forces to bear on the National Health Service (Beastall 2008). What these countries share with Canada is an increased reliance on private providers, increased concerns about the cost of laboratory services and a debate on the wisdom of using publicly funded for-profit providers.

Effects on Accountability

A requirement for greater accountability in health care is the ability to have an open, informed policy discussion. But because private sector corporations can plead business confidentiality increased for-profit delivery has led to increased secrecy, which has limited the debate on laboratory policy.

In the 1970s and 1980s Ontario's laboratory quality assessment programs published detailed information by type of ownership and size of laboratory.ⁱⁱ After 2004 Ontario's Quality Management Program–Laboratory Services (QMP–LS), having long since abandoned any breakdown by type of laboratory, stopped providing detailed information on both the total errors and the number and type of significant errors made by laboratories. Ontario's Auditor General, Jim McCarter, lamented that due to the increased secrecy he was “unable to determine whether the quality-management program for laboratory services was functioning as intended” (Office 2005: 167). QMP–LS, as all provincial quality assurance programs, oversees both public and for-profit laboratories.

In 1987 the Ontario Legislature's Select Committee on Health published detailed information on the laboratory sector including how much was paid to each private company (Callahan 1987). In 2010 it took two years to gain access through the freedom of information process to how much each corporation is paid by Ontario's public health insurance program (OHIP) for laboratory services. Similar problems were encountered when I attempted to gain access to recent studies on the laboratory industry, information on quality and information on how much was paid to the private sector lobby group for research and how it was spent.

Section 17(1) of Ontario's Freedom of Information and Protection of Privacy Act 1990 excludes from public discussion information that contains scientific, technical, commercial or labour-relations information provided in confidence to the

government when disclosure of that information might harm the company providing the information. In contrast, the Ontario government publishes hospitals' infection rates, mortality ratios and hand-washing compliance. In Manitoba a freedom of information request led to the release of documents on the public sector laboratories, but the investigators were not able to win the release of information on the quality of the private labs (CBC News 2008). Private labs in Manitoba, as in Ontario, are primarily paid by public dollars to deliver an essential medical service, but the public is not allowed to know whether they are producing quality results.

Effects on Integration

Integration is one of health care's current Holy Grails. Indeed, Ontario's new regional health networks are called Local Health *Integration* Networks. Billions of dollars of public money are being spent on an "Infoway" to integrate Canada's electronic medical records, laboratory data central among these, and in the UK a major reform being undertaken is the creation of managed laboratory networks to integrate services.

While integration among different public non-profit providers has proved difficult, adding the extra layer of a parallel for-profit system significantly complicates the process. In British Columbia, Manitoba and Ontario separate administrative structures, payment mechanisms and data networks are maintained for the private sector's community work and the public hospitals' inpatient services. For example, the integration of Ontario's laboratory records with patient records, a provincial need identified as early as 1981 (Ontario Council 1981) is made more complex by the existence of three competing for-profit laboratory electronic record systems operating alongside multiple hospital systems (Ontario Hospital 2006). Bayne (2003) notes a similar problem in British Columbia. One of

the more successful attempts to integrate laboratory records has been in Nova Scotia, which only has public laboratories (Chernos 2009). In Wales, Scotland and Northern Ireland, where the incorporation of market structures within the National Health Service has been resisted, they have been more successful in developing integrated laboratory networks, while England, where market structures have been more fully implemented, lags behind (Beastall 2008). Operating two parallel laboratory systems could also work against the most effective use of staff: a growing problem as staff shortages increase in all areas of laboratory medicine (CMAJ 2008; Davis 2002).

The experience in Alberta and Saskatchewan provides some indication of the potential harm integration poses for private providers. Over the fifteen years since all laboratory services were integrated under the control of the regional governments the role of for-profit laboratories in Alberta has been significantly diminished and in Saskatchewan for-profit laboratory provision has effectively ended.

Effects on Cost

Whether the use of private companies will increase or decrease public health care costs continues to be the subject of rancorous debate in Canadian politics. Unfortunately for those who support more private involvement, the weight of evidence and basic logic argue strongly that the use of for-profit laboratories increases health care costs.

Dennis Timbrell, then Ontario's Minister of Health, in 1977 framed the debate on who should provide laboratory services when he told the Ontario Medical Association executive that the public interest demands respect for the fact that "all"

laboratory work, “is paid from public funds... there is only one customer [the government].”ⁱⁱⁱ

The logic of the argument for using the public sector institutions, primarily hospitals and public health laboratories, for all laboratory services is straightforward. Hospitals need on-site laboratories to promptly meet the needs arising from emergencies and to satisfy their daytime inpatient requirements. For most hospitals this means significant unused capacity and often underutilized staff in the evening and at night. Community laboratory work could be done in hospitals with equipment that has already been paid for, at times when it is not being used, in buildings that are already heated and maintained. The cost of processing this work becomes the marginal costs of extra staff, more reagents, and wear and tear on the machines and buildings.

This is Economics 101 as the provincial government in Ontario was recently reminded by a report on the last community, non-profit providers in the province. The report states that, “automation and operating synergies enable incremental test volumes to be accommodated at low marginal costs” (RPO 2008). While it is not known how much excess capacity exists in the public hospitals, the situation, especially for the automated analyzers and the more routine tests, probably has not changed a lot since 1994 when the head of the Ontario Hospital Association commented, “there is massive reserve capacity in the hospital laboratories ... a fully staffed evening shift could absorb the private laboratories’ workload without difficulty” (Ontario Hospital 1994). A 2008 study for the Ontario Ministry of Health looked at twelve different communities which used the hospital laboratory for all tests and found that the local hospitals were able to process the community laboratory work in less than four hours per day (RPO 2008). The consultants also identified excess capacity in Ontario’s private sector and it is reported that BC

Biomedical operates its main lab only thirty-five hours per week (Sutherland 2004). Excess capacity in either the public or private sector is paid for with public funds and, except for the redundancy necessary to accommodate fluctuations in demand, is a waste.

The above method of determining cost is not the one advocated by the private laboratory industry. They want to compare the discrete unit cost of providing a test in a for-profit laboratory to the cost of performing the same test in a hospital, arguing that the public should only pay for the lowest cost test. But there are a couple of daunting problems with the unit cost approach.

Comparing costs in hospital labs to private labs is at best difficult: it has bedevilled analysts for decades because of their differences. Hospitals need to provide stat services, do more esoteric and reference work, provide a greater percentage of the labour intensive pathology, cytology and microbiology tests and the hospital system provides services to many small and marginalized communities, which carries an inherently higher cost. Private laboratories need to pay their shareholders and run a system of collection centres and transportation services. To complicate matters further hospital labs and private labs often use different workload measures.

Despite the difficulties in comparing the costs in the public sector to the for-profit labs there have been many attempts to do so. The results are, at best, neutral in support of the benefits of for-profit delivery. The Ministry of Health in Saskatchewan undertook a study in 1991 that found that all community tests could be done in public laboratories at 30 percent of the cost of using for-profit labs. This cost is based on the extra staff, reagents, material and overhead needed to keep the hospital laboratories open longer to process the community tests. Further, the unit

costs for five common tests, biochemistry panel, T4, iron, antistreptolysin O and urine culture, were 75% less in the provincial lab than in the fee-for-service labs (Saskatchewan 1991).

At the other end of the findings, a 1997 study done by Coopers and Lybrand for the Ontario Ministry of Health, which was only released after a lengthy freedom of information process, found that, after considering the problems of incomparable data and adding 25 percent to hospital costs for overhead and specimen procurement, the cost per reported test in a hospital was \$7.44 compared to \$6.33 in a private laboratory.

More recently the 2008 RPO study found that in twelve small Ontario hospitals that were still processing their community's laboratory work the cost was \$22 per community patient while the for-profit laboratories cost \$33. A recent article in the *Globe and Mail* examining the rapidly rising costs of Vitamin "D" testing found that the private laboratories in British Columbia charged \$94 per test, Ontario private labs \$52, Ontario hospitals \$32 while the Saskatchewan government lab did the test for \$17 (Mittelstaedt 2010).

Another indication of the excess money spent on for-profit laboratories is that through the 1970s, 1980s and 1990s, the expense of relatively uncontrolled fee-for-service provision resulted in costs rising faster in the private sector than in hospitals (Bayne 2003; Cooper and Lybrand 1997; Fagg 1999; Kilshaw 1992; Ontario Ministry 1994). To control costs, in 1993 Ontario cut payments to private labs by 10 percent (Ontario Ministry 1993), Alberta in 1994 by 53 percent (Fagg 1999), Manitoba in 1995 by "over 20%" (Coopers and Lybrand 1997) and BC in 2004 by 20 percent (Smith 2004). Australia and the United States went through

similar efforts to control for-profit laboratory costs in the 1980s and 1990s (Berger 1999; Conyers 1999).

But the most compelling evidence that using hospitals to process community laboratory work saves money comes from two programs in Ontario: the Hospitals In-Common Laboratory (HICL) and the Hamilton Health Sciences Laboratory Program (HHSLP). Both HICL and HHSLP ran a network of community specimen collection centres, provided in-home pickup and service to nursing home residents, and used hospitals to process most community specimens in financially stable long-term arrangements.

For thirty years HICL provided community laboratory services for fee-for-service rates that averaged 75 percent of the rate paid to the commercial laboratories;^{iv} dipping as low as 67 percent in 1982.^v And these savings to the public system are understated. Because HICL paid the hospitals for the tests processed in their labs it was recycling money in the public laboratory system rather than paying it out in private profits.

The costs savings in HHSLP were less definitive because the program was financed through the hospitals' global budgets and calculations suffer many of the same problems as the other unit cost comparisons; yet published results indicate savings similar to HICL. HHSLP's test costs in 1990-91 were 26.4 percent less than if a for-profit laboratory had performed the same work (McQueen 1993a) and the HHSLP total program costs from 1977 to 1990, including inpatient and academic responsibilities, were 16% less (McQueen 1993b). As part of a province-wide move to process inpatient laboratory work and community work in different facilities both the HICL and Hamilton programs had ended their community work by 2010.

Most provinces in Canada only use non-profit labs to perform publicly financed laboratory work. Alberta and Saskatchewan have shown that it is possible to re-publicize contracted laboratory work, and the fact that all private laboratories operate under fixed-term contracts makes it possible to shift work back to the public sector at the end of the contracts. Two useful steps towards ending for-profit provision would be to stop fee-for-service funding and integrate all laboratory work under the same public administrative structures.

Based on the real world experience of HICL and the Hamilton project, it is reasonable to assume that the Canadian health care system could save a minimum of \$250 million per year by moving all publicly funded medical laboratory work into an integrated public non-profit medical laboratory system. Such a move would have the added benefits of facilitating the integration of medical records, staff and administration and improving public accountability of the health care system, both of which should lead to better cost control.

References

- Bayne, Lillian. 2003. *BC Laboratory Services Review*. British Columbia Ministry of Health.
- Beastall, Graham. 2008. "The Modernization of Pathology and Laboratory Medicine in the UK: Networking into the Future." *Clinical Biochemistry Review*, volume 29.
- Berger, Darlene. 1999. "A Brief History of Medical Diagnosis and the Birth of the Clinical Laboratory: Part 4—Fraud and Abuse, Managed Care and Lab Consolidation." *Medical Laboratory Observer*, December.
- British Columbia Ministry of Health Services. 2010. *MSP Information Resource Manual: Fee-For-Service Payment Statistics – 2008/9*.
- Canadian Medical Association Journal*. 2007. "Editorial: It's time to take back the health care debate." November 6, 177(10).
- Callahan, Robert, Chairman. 1987. "Select Committee on Health: Interim Report." Third Session, Thirty Third Parliament 36 Elizabeth II, Province of Ontario.
- Chernos, Saul. 2009. "Speedy Lab Results: From Lab to Computer – Test Results are Flowing Electronically and Automatically." *Technology for Doctors* 5, 4 (October).
- CMAJ*. 2008. "Canada Lags in Standardized Protocols for Medical Labs." 179,2 (July).
- Conyers, Robert. 1999. "Editorial: Modifying use of Pathology Services." *Medical Journal of Australia*, 170, 8-9.
- Coopers & Lybrand. 1997. "Ontario Ministry of Health Laboratory Services Funding Models." Ontario Ministry of Health, March 31.
- Davis, Kurt. 2002. "Responding to the Medical laboratory Staffing Shortage: The Canadian Perspective." *Clinical Leadership and Management Review* 16,6 (November/December).
- Fagg, Kelly L., Phil Gordon , Bonnie Reib , Joseph T. McGann , Thomas E. Higa, David W. Kinniburgh, and George S. Cembrowski. 1999. "Laboratory restructuring in metropolitan Edmonton: a model for laboratory reorganization in Canada." *Clinica Chimica Acta*, 290, 73-91.
- Ford, Jason and Louis Wadsworth. 2008. "Pathology Practice in Canada." *CMAJ* 179, 4 (August).
- Kilshaw, Miles et al. 1992. "Review of Diagnostic Laboratory Services: A Report to the Minister of Health Province of Saskatchewan."
- Jamieson, Roger, Communications Analyst, Doctors Manitoba. 2010. Personal Communication.
- Medical Benefits Reviews Task Group. 2011. "Review of the Funding Arrangements for Pathology Services: Final Discussion Paper." Australian Government, Department of Health and Aging. March 2011.

- McQueen, M. J., and A. J. Bailey. 1993a. "A Cost Accounting Prototype in the Clinical Laboratory: The Hamilton Health Sciences Laboratory Program." *Clinical Diagnostics Today*. March, 11-12, 29-33.
- McQueen, M.J., and A.J. Baily. 1993b. "Hamilton Health Sciences Laboratory Program: A Provider Developed Model for Hospital, University and Community Services." *Healthcare Management Forum*, Fall/Autumn, 6(3), 35-42.
- Mittelstaedt, Martin. 2010. "Some provinces getting a bad deal on vitamin D tests." *Globe and Mail*. Toronto, Ont., Jan 20, A.7
- Office of the Auditor General of Ontario. 2005. *Annual Report*. Queen's Printer, Toronto, December 6.
- Ontario Council on Health. 1981. *Final Report of the Task Force on High Technology Diagnostic Laboratory Procedures and Equipment: Part 1 – Data Management*. Ontario Ministry of Health.
- Ontario Hospital Association. 1994. "Response to Laboratory Services Review External Advisory Sub-Committee Social Contract Study Summary Report." Toronto.
- Ontario Hospital e-Health Council: Hospital Laboratory Information Systems Advisory Group. 2006. "Laboratory Information System Integration: A Survey of Current and Proposed Local or Region Models of Connectivity." Toronto: Ontario Hospital Association
- Ontario Ministry of Health. 1993. "Ontario Association of Medical Laboratories / Ministry of Health: Memorandum of Understanding." Signed December 17.
- Ontario Ministry of Health. 1994. *Laboratory Services Review*. Ministry of Health, February.
- Ontario Ministry of Health and Long-Term Care. 2006. "Agreement Between : Ontario Association of Medical Laboratories and Her Majesty the Queen in Right of Ontario, Represented by the Minister of Health and Long-Term Care." March 29.
- Rondeau, Adam, Canadian MIS Database, Canadian Institute of Health Information. 2010. "Table 3: Reported Clinical Laboratory Spendings – Fiscal Year 2007-2008." Personal Communication.
- RPO Management Consultants. 2008. "Laboratory Pilot Projects Review: Final Report." Ontario Ministry of Health and Long Term Care, March 31.
- Saskatchewan Health. 1991. *Comparative Costs of Laboratory Services*. February 20. Report attached to a letter from Glenda Yeats, Associate Deputy Minister, Saskatchewan Health to the Saskatchewan medical Association, February 21, 1991.
- Smith, Charlie. 2004. "BCMA Offers to Cut Lab Fees." *www.straight.com*, March 4. Accessed February 20, 2010.
- Sutherland, Jim. 2004. "Even after cuts in funding, BC BIOMEDICAL is our No. 1 employer for the third year in a row. Here's how they do it." *Globe and Mail*, Friday, December 24, p. 46.

Sutherland, Ross. 2010. *False Positive: Private Profit in Canada's Medical Laboratories*. Fernwood Publishing, Winnipeg.

ⁱ The billion dollar total is a conservative extrapolation from recent spending in Ontario, Manitoba, Alberta and British Columbia on for-profit laboratories. Payments from the federal government, territorial governments, public health departments and public hospitals to private laboratories are not included in this figure, but if they were it would be significantly higher.

ⁱⁱ “Laboratory Proficiency Testing Program Annual Report – May 1979.” Ontario Archives, RG10 -39, Box 5.

ⁱⁱⁱ “Memorandum re: Meeting with Executive of Ontario Medical Association – Wednesday, June 2/76 – 1530 Hours.” Ontario Archives, RG10-18, barcode 112932, box 2, file 0-128173.

^{iv} Ontario Council of Health. 1982. *Report of the Task Force on Laboratory Services*. Archives of Ontario. RG 10-247, Container #8, Acc. 28303, B212503.

^v Hospitals In-Common Laboratory Inc. Report of the Chairman of the Board and President to the Annual Meeting on June 22, 1983, D. Murray Young. Archives of Ontario, RG10-247, container #8, Acc. 28303, B212503.