



PUBLIC PRIVATE PARTNERSHIPS IN CANADIAN HEALTHCARE  
A CASE STUDY OF THE BRAMPTON CIVIC HOSPITAL

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## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>6</b>
EVALUATING P3's -- WHAT IS SUCCESS? .....	7
PPPS IN HEALTH CARE.....	8
THE CANADIAN HEALTH CARE SYSTEM .....	8
METHODOLOGY.....	9
CASE STUDY.....	10
A NEO-INSTITUTIONAL ECONOMIC FRAMEWORK FOR ANALYSIS .....	12
THE AUDITOR GENERAL'S REPORT, STAKEHOLDER INTERVIEWS AND THE SURVEY .....	14
RESULTS BASED ON NIE FRAMEWORK .....	15
FACTOR ANALYSIS.....	21
NIE ANALYSIS AND KEY IMPLICATIONS .....	22
CONCLUSIONS.....	26
RECOMMENDATIONS .....	27
<b>INTRODUCTION.....</b>	<b>28</b>
<b>METHODOLOGY.....</b>	<b>30</b>
CASE STUDY ANALYSIS.....	30
<b>INTRODUCTION TO PUBLIC PRIVATE PARTNERSHIPS (PPP) .....</b>	<b>32</b>
TYPES OF PUBLIC PRIVATE PARTNERSHIPS.....	34
<b>PPPS AND NEO-INSTITUTIONAL ECONOMICS .....</b>	<b>36</b>
SOCIALITY AND POLITICAL RHETORIC .....	37
RISK .....	39
EQUITY, ACCESS & IMPROVED PERFORMANCE .....	41

GOVERNANCE .....	41
AGENCY THEORY .....	42
TRANSACTION COSTS .....	43
PROPERTY RIGHTS .....	44
EFFICIENCY.....	45
EVALUATING PPP – WHAT IS SUCCESS?.....	46
<b>PUBLIC-PRIVATE PARTNERSHIPS IN HEALTHCARE .....</b>	<b>48</b>
HEALTH CARE IN CANADA.....	48
HISTORY OF PPP PROJECTS IN CANADA.....	50
COMPLEXITY OF PPP IN THE CANADIAN HEALTH CARE SYSTEM.....	52
<b>CASE STUDY .....</b>	<b>53</b>
PURPOSE/AIM OF THE STUDY .....	53
THE BRAMPTON CIVIC HOSPITAL PROJECT .....	55
<i>Decision to Build and Contractor Procurement</i> .....	55
<i>Building/Construction</i> .....	56
<i>Initial Opening</i> .....	57
<b>ANALYSIS .....</b>	<b>62</b>
NIE ELEMENT 1: SOCIALITY & POLITICAL RHETORIC.....	67
<i>NIE Element 1: Implications of Analysis</i> .....	75
NIE ELEMENT 2: RISK .....	75
<i>NIE Element 2: Risk Implications</i> .....	87
NIE ELEMENT 3: COST REDUCTIONS.....	88
<i>NIE Element 3: Cost Reduction Implications</i> .....	92
NIE ELEMENT 4: EQUITY, ACCESS AND PERFORMANCE IMPROVEMENT.....	93

<i>NIE Element 4: Equity, Access &amp; Performance Improvement Implications</i> .....	99
NIE ELEMENT 5: GOVERNANCE.....	100
<i>NIE Element 5: Governance Implications</i> .....	100
OTHER FACTORS.....	101
<b>THEMES.....</b>	<b>102</b>
<b>CONCLUSIONS.....</b>	<b>103</b>
<b>GLOSSARY.....</b>	<b>109</b>
<b>APPENDIX I – FACTOR ANALYSIS TECHNICAL APPENDIX.....</b>	<b>110</b>
SURVEY DESIGN .....	110
SAMPLE .....	111
TABLES, FIGURES AND SELECTED ANALYSES .....	111
SAMPLE OF SURVEY .....	130
<b>APPENDIX II – SELECT NEWS COVERAGE OF BRAMPTON CIVIC HOSPITAL....</b>	<b>144</b>
SUMMARY OF NEWS AND MEDIA COVERAGE OF BRAMPTON CIVIC HOSPITAL.....	144
SELECT NEWS ARTICLES.....	145
<b>APPENDIX III – PUBLIC PRIVATE PARTNERSHIPS.....</b>	<b>151</b>
PURPOSE OF PUBLIC PRIVATE PARTNERSHIPS.....	152
TYPES OF PPP ARRANGEMENTS .....	155
<b>APPENDIX IV - PPP BEST PRACTICES.....</b>	<b>160</b>
VALUE FOR MONEY .....	160
ACCOUNTING ISSUES.....	160
PPP DEFINITIONS, PRINCIPALS, BENEFITS AND VFM ACROSS JURISDICTIONS .....	162
<b>APPENDIX V - OVERVIEW OF THE CANADIAN HEALTH SYSTEM .....</b>	<b>167</b>

THE CANADIAN HEALTH CARE SYSTEM .....169  
LOCAL HEALTH INTEGRATION NETWORKS (LHINS) .....170

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## Executive Summary

The cost to deliver healthcare in developed and developing nations has been rising exponentially. Governments around the world are searching for alternative mechanisms to reduce costs while increasing the medical capacity of the system with significant investments in infrastructure. A number of jurisdictions, including Canada, have begun to utilize public-private partnerships (PPPs) as a means of achieving these objectives. Use of PPPs in Canada is a relatively new phenomenon. PPP relationships differ in a fundamental way from conventional procurement contracting. In conventional procurement, the risks are assumed to be relatively contained in a contract which is focused on a short-term infrastructure deliverable, such as construction of a road, airport, water and sewer facility or hospital. In PPPs, the key is to develop risk-sharing mechanisms that enhance the returns to both the public and private sector. PPPs are based upon a stewardship model in which the private sector takes a more aggressive role in aspects of the project to which they had previously been excluded from in the conventional procurement approach, such as design, financing, operations and maintenance. The hypothesis is that when the private sector assumes greater responsibility in the project, there will be incentives to ensure a steady stream of revenue for the private sector over the life of the project. For example, the private sector will design and build a “better” facility if they are responsible for the ongoing operation and maintenance for the next 25 years. This ongoing relationship is part of the return on investment calculation and is expected to result in better upfront design

and build considerations and more effective operations over the life of the project, benefiting the public sector.

The purpose of this study is to examine PPPs in Canada with specific reference to a case study of the Brampton Civic Hospital in the province of Ontario. The methodology is based upon a detailed literature review, in-depth interviews with selected knowledge leaders in the field, a review of the Ontario Government Auditor General's Report and a survey of healthcare professionals in the province of Ontario. Conclusions and recommendations are then drawn with respect to our findings that will be of value for future PPPs in Canada and to colleagues and other countries.

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Evaluating P3's – what is success?

There are a number of approaches to assessing the success of a PPP project, including:

- Clarity of goals and responsibilities;
- Efficient and fair sharing of risk;
- Public sector cost reduction;
- Incentives;
- Monitoring mechanisms and dispute resolution, and
- Political support within any enabling regulatory environment.

For purposes of this report international best practices were assessed. One key consideration in a PPP project is the value for money proposition. That is, the proposed PPP should yield economic benefits that exceed a Public Sector Comparator (PSC). There are a number of contentious accounting issues. Many argue that the PPP model presents a distorted view of public sector financing. This is due to the fact that with a conventional contracting relationship the debts are on the books of the government, whereas in a PPP the liabilities may be off-book. Jurisdictions, such as Ontario, which utilize fully allocated accounting principles, would not experience such difficulties. Cameral accounting would also ensure that the assets and liabilities appear on the books of the government. The adoption of International Financial Reporting Standards (IFRS) will reduce this concern.

PPPs in Health Care

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Governments in both developed and developing countries are facing the dual burden of rising health care costs and enhanced expectations for health service delivery. As well, developed countries are experiencing growth in their elderly population.

### The Canadian Health Care System

The Canadian healthcare system is nominally a public program. However, this is primarily the case with respect to physician treatment and hospital care. Many other aspects of the Canadian health care system are privately funded including the fastest-growing component, drug therapies. Sustainability of the current system is under threat due to the rising proportion of provincial budgets that are apportioned to the healthcare



component. In the province of Ontario, the healthcare component is currently 40% of the entire provincial budget and is expected to rise to an unsustainable 70% within the next 20 years if current trends continue. It is for this reason that there have been attempts to utilize the PPP methodology to deal with budget and infrastructure imperatives and to enhance efficiency and effectiveness by utilizing the specific skills of the private sector. In the past, PPP projects have been restricted to less policy sensitive areas such as road building and water and sewage facilities but this is no longer the case.

## Methodology

The purpose of this study is to examine public-private partnerships in the context of the Canadian health care system with specific reference to a case study of the Brampton Civic Hospital in the province of Ontario. The methodology is based upon:

1. Identification of a PPP hospital capital project ( Brampton Civic Hospital );
2. A detailed literature review;
3. A survey of over 2300 healthcare professionals in the province of Ontario (response rate approximately 10%);
4. Interviews with selected knowledge leaders in the field;
5. A review of the report of the Auditor General of Ontario;
6. Benchmarking key health indicators in Ontario;
7. A factor analysis based upon the survey responses regarding risk.

Our research and analysis resulted in the identification of emerging critical issues which emerged. We then drew conclusions and recommendations with respect to our findings that will be of value for future PPP in Canada and to colleagues in other jurisdictions.

## Case Study

This paper analyzes a health care related PPP in the context of a case study based on the Brampton Civic Hospital. Brampton is a suburb of the capital city of Toronto, Ontario. It has approximately one half million people and is the 11th largest city in Canada.

Demographic studies indicated in the early 1990s that the city of Brampton required additional bed facilities and as a result, planning for a new hospital began in the late 1990s. The Brampton Civic Hospital would be part of the William Osler Health Centre. The key decisions and cost estimates for the project were made in late 2003, subsequent to the decision to use the PPP model. The PPP was limited to the design, build, finance and maintenance components of the project and did not include the delivery of clinical services. Physical construction of the hospital occurred over the period 2004 to 2007. The hospital was allocated over 600 beds but due to Ministry of Health procedures the hospital opened with 479 beds in December of 2007. The government planned to phase in the remaining beds over several years. The same weekend that the new hospital was opened, another William Osler Health Centre facility, Peel Memorial Hospital, was closed. The community had not anticipated the

closing of the Peel Memorial Hospital and this transaction resulted in fewer net new beds for the community than originally anticipated.

The Brampton Civic Hospital was the first example of a health capital PPP in Ontario. Due to some of the issues and concerns with respect to the PPP exercise in the development of Brampton Civic Hospital, it provides an excellent opportunity for a detailed case study analysis.

The three project phases are as follows:

*Phase 1: Decision to Build*

- Late 1990's need for a new hospital is identified
- 2001 plans for a new hospital are announced
- 2003 PPP contract is awarded

*Phase 2: Building / Construction*

- Cost estimates are revised
- 2006 Local Health Integration Networks are established
- 2007 hospital construction is completed
- Significant cost overrun

*Phase 3: Initial Opening*

- 2007 hospital opens with 479 beds
- Peel hospital is closed

- BCH opened over the weekend
- Patient deaths
- Provincial supervisor appointed
- Senior leadership resigns

### A Neo-Institutional Economic Framework for Analysis

We have adapted the Neo-Institutional Economic framework (NIE) of analysis to examine the advantages and disadvantages of the PPP model.

The model includes quantitative and qualitative elements.

*Qualitative elements include:*

- Equity, Access & Improved Performance
- Sociality & Political Rhetoric
- Governance

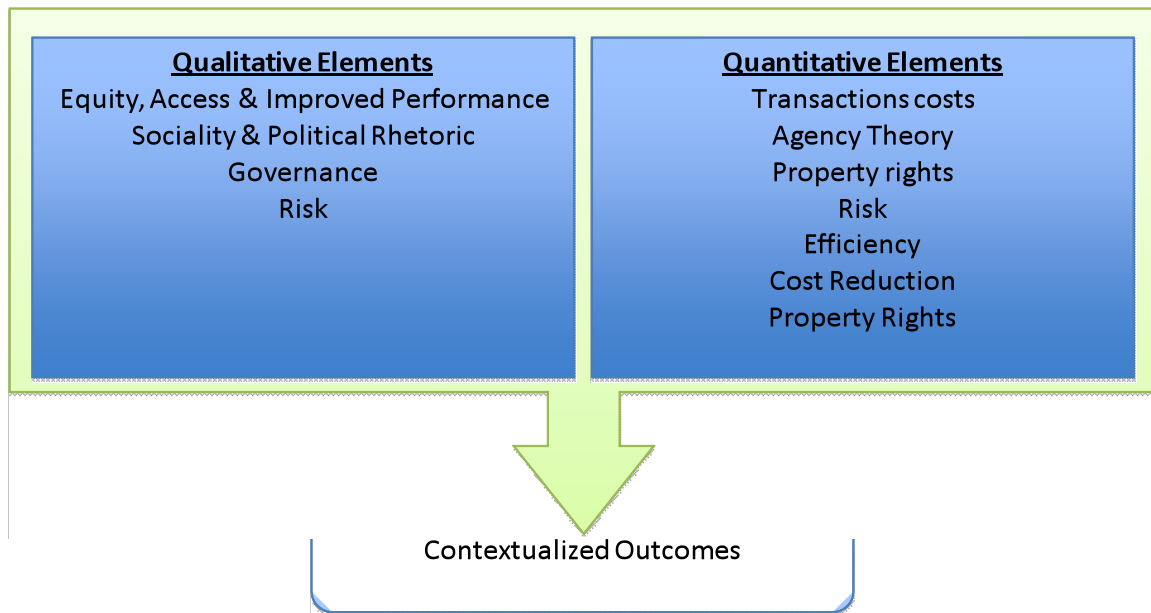
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*Quantitative elements include:*

- Transactions costs
- Agency Theory
- Property rights

For example, in this study we have utilized the quantitative elements presented in the report of the Auditor General of Ontario as well as examined the qualitative outcomes such as sociality and political rhetoric. This framework allowed the contextualization of the outcomes of the PPP project beyond the traditional quantitative analytics. This framework is presented in Figure 1.

Figure 1: NIE Framework



The sociology of institutions utilizes such variables as organizational structure, governance models, values and perceptions. In addition, agency theory and property rights are important considerations. The analysis of the case led to the conclusion that although all aspects of the NIE framework could be applied to the project, there were areas that were more problematic than others in this specific case study. In order of magnitude they are:

1. Social and Political Rhetoric
2. Risk
3. Cost Reductions and Efficiency
4. Equity, Access and Improved Performance
5. Governance
6. Agency Theory

*Transaction costs, Efficiency and Property Rights* were analyzed to a lesser extent due to a lack of publically available of information and / or applicability to the Brampton Civic Hospital case. However, when applying an NIE framework to analyze PPPs, it is important to apply all factors to the case study.

### **The Auditor General's Report, Stakeholder Interviews and the Survey**

In 2008, the province of Ontario's Auditor General published an in-depth report which reviewed the building of Brampton Civic Hospital, with a focus on the value for money outcomes and the choice to employ a PPP. This was the government's official assessment of the project and was used to inform our analysis surrounding quantitative elements of the NIE framework.

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To inform the qualitative components of the model and further understand some of the nuances of the Auditor General's Report, we conducted detailed and interviews with knowledgeable stakeholders. These interviews were conducted with:

- Academics in the health care field
- Healthcare professionals
- Government officials
- Officials from other provinces
- Consultants

These interviews were utilized to create a survey instrument that was administered to over 2300 healthcare professionals in the province of Ontario. This group provided a knowledgeable cohort, allowing us to draw strong conclusions with respect to the use of the PPP model in general in the health care field as well as specifics with respect to the Brampton Civic Hospital project.

Finally, a factor analysis was conducted. The factor analysis was based on the risk component questions in the survey.

#### Results based on NIE Framework

##### *Sociality and Political Rhetoric*

Issues of sociality and political rhetoric cannot be addressed in the contractual elements of the PPP model. However they are important aspects of the "public" component of the PPP model.

Our in-depth discussions with **stakeholders** suggested that even within the knowledgeable health care community, the meaning and purpose of the PPP model is not well understood. For example, there is a perception that the public asset(s) is/are being sold to the private sector from which they will then make a profit. Amongst the general Ontario population the majority perception with respect to private sector participation in health care is one of concern.

The **survey** indicated that healthcare professionals in the province of Ontario were generally positive with respect to the design and build component of the PPP model. This also included the provision of selected nonclinical activities. As well, there was receptivity to be utilization of a design -- build -- finance -- maintain (DBFM) approach. With specific reference to the Brampton Civic Hospital case study, **stakeholders** identified the lack of a formal plan to manage communications and to promote transparency amongst project participants and within the broader community. This was especially evident with the closure of the existing Peel Memorial Hospital as it was unanticipated and was not properly communicated to the community. Hospitals are an integral component of the community and the unexpected closure of the Peel Memorial Hospital caused great anxiety especially given the fact that the Brampton Civic Hospital opened with far fewer beds than the general public had anticipated. Therefore, there was a significant perception from the beginning that the community would be under serviced. These perceptual issues became so acute that the Ministry of Health placed Brampton Civic Hospital under supervision. This is a sweeping administrative power where authority of the Board of Directors and senior management is placed entirely with the supervisor. This intervention is employed only in cases deemed to be very serious. In addition to providing a supervisor, the provincial government undertook significant expenditures to address the perceived issues that had arisen.



## *Risk*

The successful development of a risk sharing techniques is critical to the long-term success of any PPP project. Incentives in the DBFM model are intended to stimulate creative behavior by the private sector in order to gain profitability over the course of the project. Our discussions with key **stakeholders** indicated that appropriate risk transfer is one of the key benefits in determining the lifecycle value of a PPP project. Our **stakeholder** discussions suggested clinical care provided by nurses, physicians and other allied health professionals remain in the public realm.

The **survey** indicated that public opinion must be adequately addressed with respect to the transfer of risk. The survey indicated that knowledgeable healthcare professionals were prepared to transfer design and construction as well as parking services to the private sector. However there was considerable concern with respect to transferring nursing services, non-nursing clinical services and hospital operations. This was somewhat surprising, as Ontario hospitals have routinely employed private-sector agencies for the provision of nursing services when a short fall occurs. Additionally, clinical services such as diagnostic imaging and laboratory services have also been contracted out in some hospitals for many years. Survey results indicated that governance structures, property rights and construction quality were critical components of risk transfer. Again, this is somewhat surprising as hospitals must, by law, remain public institutions. Therefore the concern with respect to property rights appears unfounded.

The **Auditor General of Ontario (AG)** conducted a detailed analysis of the Brampton Civic Hospital project. The focus of this attest report was risk and value for money. The AG concluded that the initial PSC which included a 13% cost overrun, valued at \$67 million, was excessive. The report also questioned the degree of competition in the marketplace at that time. As this was the first PPP health capital project, the AG reports suggested that very few contractors in the province of Ontario were capable of bidding on this type of contract. Therefore, either the PPP or traditional procurement would have been restricted to a small group. Best practice was not followed in this case as the Public Sector Comparator (PSC) was conducted after the project had been approved.

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**Stakeholders** indicated that the public sector was not fully prepared to transfer key elements of the project to the private sector. As a result, it is argued that the public did not receive the full benefits of the PPP model due to the inability to effectively transfer risks from the public to the private sector.

#### *Cost Reductions and Efficiency*

Cost reduction are one of the key benefits of the PPP model. These reductions should arise due to embedded knowledge and economies of scale in the private sector and the ability to extract margins via a competitive bidding process. **Stakeholders** indicated that there was, indeed, a lack of competition in the bidding process for the Brampton Civic Hospital project. A comparison with the PPP project in Abbotsford, British Columbia,

Canada indicated that the utilization of international firms enhanced significantly the capacity to capture best practices as well as to gain cost efficiencies. **Survey** results confirm the views of stakeholders. Only 10% of survey respondents indicated that there was sufficient competitiveness due to a lack of qualified bidders for Brampton Civic Hospital. **The Auditor General of Ontario (AG)** report questioned the rationale for a significant difference in cost estimates provided by two independent consultants. There was concern that the PSC was not adequately addressed. At that time, of the cost of public sector borrowing was significantly lower than the weighted average cost of capital of the firms bidding on the project. As a result, the AG estimated there would have been \$200 million savings over the life of the project if the public sector contracting model had been utilized instead of the PPP model. It is the norm in most developed countries that the cost of capital for the public sector will be lower than that of the private sector. However our analysis suggests that this is not the definitive rationale for assessing cost reductions and efficiencies. It is important to assess the project over its entire lifecycle to fully determine the benefits that will be attained through the PPP model. This is specifically true with respect to the characteristics of a design- build- finance- maintenance model which should provide the private sector the incentive to achieve cost efficiencies over the life of the project.

#### *Equity, Access and Performance Improvements*

Performance does not exist in a vacuum. To adequately assess performance it is necessary to benchmark against best practices both domestically and internationally.

For the purposes of this exercise we have focused our best practice research on the performance of Ontario hospitals. **Stakeholders** indicated that the media driven perceptions with respect to the quality of care were important in determining public acceptance of the Brampton Civic Hospital model. The occurrence of a number of deaths and other adverse events during the opening of the hospital suggested that there were significant performance issues and that these issues were the direct result of the utilization of a PPP model. We compared hospital standardized mortality ratios for the William Osler Health Centre, of which Brampton Civic Hospital is a component. The data indicates that the risk-adjusted experience at William Osler Health Center is better than benchmark with respect to the expected number of deaths. With respect to metrics of patient satisfaction, the William Osler Health Center had been performing below provincial average prior to the establishment of Brampton Civic Hospital.

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The **survey** of health care professionals in the province of Ontario indicated that almost 60% believed that the involvement of the private sector resulted in issues with respect to the delivery of care. A number of respondents expressed concern with respect to the potential privatization of health care services in the province. This, of course, represents a fundamental misunderstanding of the PPP model used in the Brampton Civic Hospital project. A deeper meaning may be that healthcare professionals are concerned that private sector participation in the PPP model represents the beginning of a long-term movement towards private, for profit, health care.

## *Governance*

Critical to the successful execution of a PPP model is the governance structure, which is specified in the contracts. A comparison of the Brampton Civic Hospital **contract agreement** with current best practice in the province of Ontario revealed several areas of difference including more complexity in the contracting mechanisms, a lack of robust dispute resolution mechanisms and more apparent protection for the private sector partner.

**Stakeholders** confirmed that contract complexity was a key issue with respect to the governance of the project. The vast number of schedules and agreements created an arrangement that was complex and difficult to manage by the public sector. Clearly defining accountability structures in the formal contract agreement is important to the successful execution of PPP projects.

## **Factor Analysis**

One of the questions in the survey focused on the area of risk. There were a number of specific questions with respect to risk transfer in the Brampton Civic Hospital case. In the absence of longitudinal data it was not possible to conduct trend analysis. We then utilized an exploratory factor analysis to determine whether or not risk transfer grouped to underlying constructs. This methodology allowed us to group issues and characteristics by a common set of themes.

Based on statistical significance we identify 12 key variables from the analysis. The risk factors for identifying as the:

- Control or attest function
- Goal alignment
- Issues of complexity and governance

We then constructed a factor matrix in order to determine the key themes that have merged with the statistical analysis. The three key themes that emerged are as follows:

- Communications based on well articulated goals
- Public sector control of the key risk factors

- Timing, flexibility, best practice and governance in the four stages of design -- build -- finance -- maintain

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### **NIE Analysis and Key Implications**

There was considerable concern within the community with respect to the efficiency and effectiveness of the new hospital. These concerns were exacerbated when a number of deaths occurred upon opening of the new hospital. Key interest groups in the community suggested that these deaths were the result of private participation in the design, development and building of the hospital. The private contractor was also responsible for many of the non-clinical services and certain operating and maintenance provisions. A media review indicated that there was considerable concern with respect

to the operations of the hospital and the role of the private sector in the perceived poor clinical outcomes.

The analysis and key implication, by NIE element is as follows:

#### 1. Sociality & Political Rhetoric

- In a politically sensitive area, such as healthcare, the case presents a very strong argument for the need to have a robust communications plan
- Community management was poorly done including communications and stakeholder engagement
- Unique needs of the community were not met or well-managed in this case
- PPP is a new model in Canada, evolving model – not well understood

#### 2. Risks

- Sound methodology exist for transferring risk – case study suggests that project specific implementation is challenging and actualizing of theory was difficult
- A best practice methodology was not followed and as risk not effectively transferred
- Knowledgeable and experienced participants must be involved to assist in accurate risk estimate and assurance of transfer
- To effectively transfer risk control over key elements must be relinquished by the public sector

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The project experienced a prolonged process from design to build, finance and maintenance. The process did not provide sufficient flexibility to address emerging issues, such as:

- Population growth
- Changes in capital cost estimates
- Inability to transfer risk
- Building modifications to incorporate new technologies
- A difficult transition with the weekend closure of the Peel Hospital and the opening of the Brampton Civic Hospital

### 3. Equity, Access & Improved Performance

- The perception of access and delivery issues in PPP's was not supported by an analysis of mortality rates and patient satisfaction
- William Osler Health Center patient satisfaction outcomes remained consistent prior and subsequent to the opening of BCH
- Analysis suggests with respect to the privatization effects on equity and access in the PPP model
- Public perception that this model is a precursor to private healthcare and therefore is not well received or understood in Ontario



#### 4. Cost reductions

- PSC and VFM were not done correctly for BCH as compared to best practice
- Cost of capital in developed countries is always less for the public sector– but over a 25 year timeframe the efficiencies of the private sector in the operations and maintenance of the facility may result in lower costs
- Cost overruns associated with changes in the design of the facility due to technology enhancements were not adequately considered. Contracts should incorporate flexibility to allow for design revisions
- Presumption that public sector time is free – not well represented in case study's PSC
- Proper accounting ensures that projects are appropriately reflected on the government accounts – in Ontario current accounting practices are full-costs and therefore liability is represented

#### 5. Governance

- Lack of in-house resource expertise at the hospital with no government agency at the time to provide expertise or oversight to the PPP project
- Nature of contract, dispute resolution, etc. (qualitative elements)

#### 6. Agency Theory

- DBFM better model to try to integrate the interests of the public and private sector given incomplete contracts

## Conclusions

There were no doubt a number of serious issues with respect to the Brampton Civic Hospital public -- private -- partnership model. Our conclusion is that none of these problems were the direct result of private sector participation in this project through a PPP approach. This was confirmed by an assessment of the benchmark metrics provided by the various data gathering agencies. The metrics indicate that deaths and negative clinical outcomes were no different at Brampton Civic Hospital than what would be expected in a large general (non-teaching) hospital.

The obvious conclusion is that there was a major breakdown in communications and application of best practice PPP methodologies at every stage of the project. Design changes were not adequately taken into account to reflect technological change from the original design parameters to the final requirements for a modern hospital. Project participants did not adequately inform the community with respect to the closure of the Peel Memorial Hospital. As a result, the community was unprepared for the initial outcome which resulted in no net new beds added to the regional hospital capacity. It is apparent that a number of stakeholders took the opportunity derived from this lack of communication to present a negative picture with respect to the involvement of the private sector in healthcare.

## Recommendations

Based upon our analysis and conclusions, we propose the following recommendations:

1. A formal communications and engagement plan for managing public perceptions, particularly in Canada given the sensitivity of 'privatization' of health services will assist in the management of critical issues in a timely manner
2. As the PPP model evolves into more policy sensitive areas such as healthcare, care must be taken to clarify the nuances of the PPP model in order to effectively manage the elements of sociality and political rhetoric that can have significant influence on PPP project outcomes
3. Opportunities to enhance the current model include additional support to health service providers post-construction and enhance communications with the public to improve PPP project outcomes.

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## Introduction

It is a broadly accepted fact that the rising cost of delivering health services across developed nations is a critical issue for governments, which are responsible for financing the majority of health expenditures. Specifically, total spending on health care as a percent of GDP in OECD nations grew from 7.8% in 2000 to 9% in 2008 without substantial improvements in health outcomes (Organization for Economic Co-operation and Development, 2010). The challenges of ever-growing costs and issues with respect to sustainability of the health systems are exerting pressure on policy makers to be more responsive to patient needs while maintaining/enhancing quality of care (Organization for Economic Co-operation and Development, 2010). These challenges coupled with the recent economic pressures and challenging equity markets, have led many governments to explore the public private partnerships (PPPs) as a mechanism to raise capital, curb spending and ultimately achieve better health outcomes (Organization for Economic Co-operation and Development, 2010).

In Canada the use of PPP is a relatively new method of financing and capital development. However, Canadian governments are increasingly turning to PPPs to build or upgrade infrastructure assets (The Conference Board of Canada, 2010). In the early 1990s, the Canadian governments (both provincial and federal) began exploring the use of PPPs; since that time over 100 PPP transactions have been conducted with consortia of private sector vendors (The Conference Board of Canada, 2010). While other OECD nations may be more advanced in their use of PPPs as a mechanism to finance, build

and maintain infrastructure assets, across all nations this is still an emerging policy tool. Further, within the health care sector in developed nations the PPP model is even less mature. Our study examines the unique nature of the PPPs in the building and upgrading of health capital assets. The study aims to use a specific case study to better understand the lessons learned from form of capital project. The purpose of our analysis is to assess the benefits and drawbacks of PPPs as a policy tool, the various types of PPP models and the advantages and disadvantages of each model. Finally, our study included an analysis of the perceptions of various stakeholders involved or impacted by a PPP project in health care to better understand the current views and understanding of the arrangements among stakeholders in the health care community in Canada.

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## Methodology

### Case Study Analysis

The purpose of this study is to examine public-private partnerships in Canada with specific reference to a case study. We have chosen a case study methodology in order to examine and understand a particular Canadian health capital project. The Brampton Civic Hospital (BCH) was chosen as the project to study. The hospital was constructed using a PPP model between 1999 and 2007. As a pilot PPP project for the province of Ontario in Canada, the case has been reviewed by several Canadian organizations and ample data was available to inform our analysis.

To inform our case study, we have conducted an in-depth literature review applying a neo-institutional economics (NIE) framework. The NIE framework examines the benefits and costs of the PPP from a sociological point of view. It includes both quantitative and qualitative elements to determine contextualized outcomes. Literature was reviewed with a focus on the element identified in the NIE framework related to PPP capital projects.

Qualitative elements of the NIE framework were explored via a survey of over 2,300 health professionals in the province of Ontario and in-depth interviews with knowledge leaders across the industry. The survey was distributed electronically to health care professionals across Canada at various organizations and levels of seniority. The Technical Appendix provides a detailed overview of the survey approach, results and a sample of the questionnaire. In order to examine the quantitative elements, a

2008 report by Ontario's Auditor General was used to study the quantitative outcomes of the case. This report was supplemented with interviews and survey results to better understand public perception of PPP, the sociality and political rhetoric inherent to this model and the familiarity of the health care professionals with the PPP model. Interviews were focused on both primary and secondary stakeholders and the survey was aimed at secondary stakeholders. Specifically, interview participants included knowledge leaders in the following fields:

- Academics in the healthcare field
- Hospital staff directly involved in the project
- Government officials
- Officials from other provinces
- Consultants

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## Introduction to Public Private Partnerships

Partnerships between public sector and private sector organizations have gained popularity in recent years as a mechanism to modernize aging government-owned infrastructure and create new facilities. The concept of partnership is built upon the theory that capital projects and public services can be delivered by private firms under contract to the state (Flinders, 2005). Labeled “public private partnerships” or “PPPs” these partnerships are used primarily as a procurement vehicle for government organizations to build or upgrade infrastructure. They are intended to benefit all parties by sharing risks, rewards and responsibilities.

PPP relationships are developed through extremely intricate bidding processes and contracts, multi-firm consortia, and rely heavily on complex financial arrangements (Blanken A. , 2008). The rationale for the emerging popularity of these relationships is that a purely public approach (or traditional procurement approach) to projects may result in government failure, slow and inefficient decision making, governance, organizational design and lack of competition and efficiency (Kwak, Chih, & Ibbs, 2009). Comparatively, a strictly private approach can result in market failures such the uneven distribution of infrastructure (Kwak, Chih, & Ibbs, 2009). In recent years the focus has shifted to the quality of service delivery and not who is delivering the services (Flinders, 2005). PPPs are considered to be the primary alternative to traditional contracting out or the privatization of services and are therefore viewed as the most preferable alternative as it supports the strengths of both the public and private sector participants



(Hodge & Greve, 2007). PPPs are also unique because they extend beyond the design/bid/build phase to include operation and maintenance over the long-term.

In their paper “Dispelling the Myths: A Pan-Canadian Assessment of Public Private Partnerships for Infrastructure Investments”, the Conference Board of Canada illustrates the well the primary difference between a conventional project and PPP project by offering the following key features of each:

**Figure II: Key Features of PPP and Conventional Procurement Methods**

Key Features of PPP and Conventional Procurement Methods	
PPP Projects	Conventional Projects
<p>Private sector stewardship, whereby overall control of project execution is transferred to the private sector partner. The completion of milestones is determined by an independent certifier and overseen by the private sector partner. The public sector owner must step back and allow the PPP consortium and its contractors the freedom to manage each phase of the project in a way that best meets the contractual obligations. However, the public sector owner ultimately retains ownership of the asset, including the right to make changes to the requirements or even to terminate the PPP arrangement.</p>	<p>Project stewardship by the public sector or a contract management firm. Overall control of the project execution rest with the public sector owner (or a contract management firm acting on behalf of the public sector owner). The public sector owner (or its contract management firm) would typically have engineers on site to supervise and direct the project and to inspect and approve the work at key completion milestones.</p>

*Source: The Conference Board of Canada, 2010*

According to the Conference Board of Canada model, the key distinguishing feature between a PPP project and a conventional project procurement and execution methodology is the role that the private and public sectors play in stewardship of the project. In the PPP project, it is the private sector that takes on ultimate responsibility for the successful execution of the project and therefore assumes most of the risks associated with the project. Conversely, in a traditional procurement methodology, although the public sector may procure additional resources to support the project execution, the public sector retains stewardship and therefore ultimately accountability and responsibility for execution of the infrastructure project, and as such limited risk is transferred to the private sector in this model.

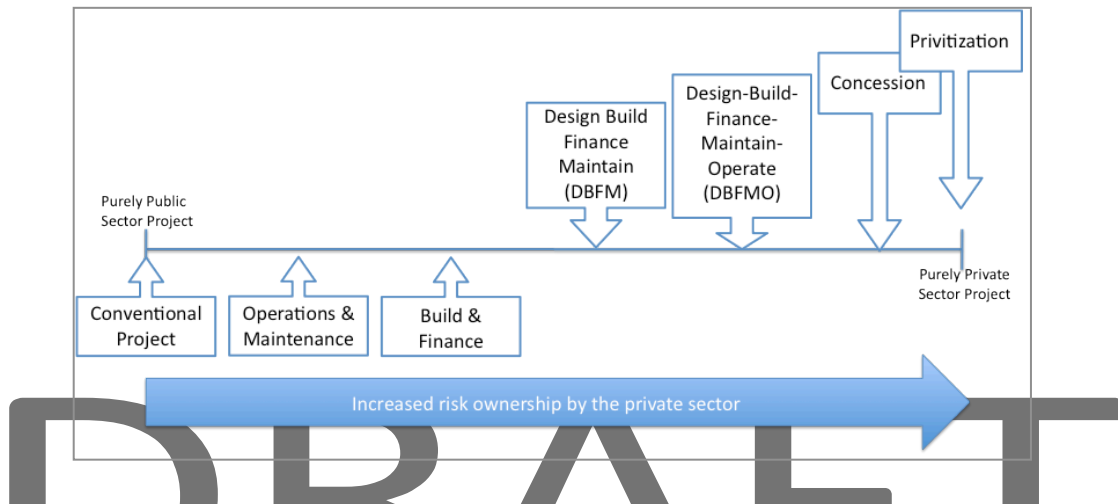
## Types of Public Private Partnerships

# DRAFT

Depending on the nature of the project, the role of the private sector will vary. A number of different types of PPP project exists across a spectrum of privatization as depicted in the Figure 2 below. On the left-hand side we see examples of conventional public sector projects. As we move to the right side of the spectrum the role of the private sector increases in terms of stewardship, accountability, responsibility and risk ownership. For example, in a operations and maintenance PPP project the public sector would procure a private sector contract to provide operations and maintenance services for infrastructure but would maintain responsibility for the design, build, financing of the capital asset. Conversely, in a design-build-finance-maintain-operate or DBFMO PPP project type, the public sector would contract with a consortium of vendors who would together provide the design and build services for the project, would raise the required

capital and finance the infrastructure investment through construction, and provide maintenance and operations services for the building over a fixed term. Appendix I provides more detailed information on the various types of PPP arrangements and the benefits and drawbacks of each model.

**Figure III: Types of PPP Projects**



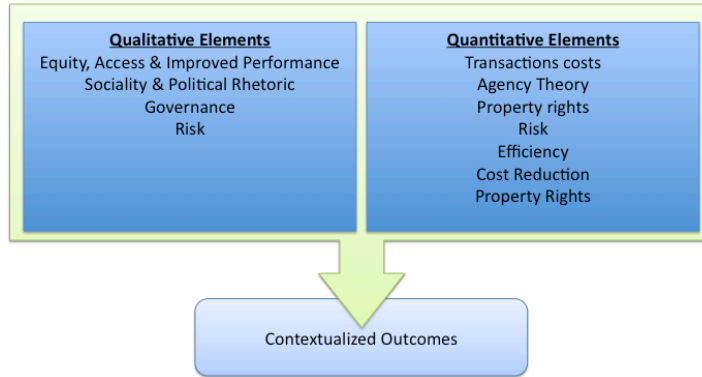
The decision to pursue a PPP arrangement is usually made based on a value for money (VFM) assessment, which involves comparing the cost of pursuing the project in the private sector with the costs to be incurred using a conventional procurement method. This is traditionally done through a public sector comparator (PSC) analysis. The interpretation and execution of the described PPP best practices across OECD countries varies. In Appendix II a summary is provided of the various interpretations across jurisdictions in which PPP are commonly employed. In addition, Appendix III discusses current best practices with respect to PPP execution as articulated in the literature.

## PPPs and Neo-Institutional Economics

In order to discuss the theoretical advantages and disadvantages of PPPs, a Neo-Institutional Economic (NIE) framework was used to analyze the literature. The advantages of employing a NIE framework is that neo-institutional theories focus on the sociology of institutions and take into consideration the context of outcomes rather than the profit-maximizing behavior of neoclassical economics (Royer, 1999). NIE focuses on the environment in which decisions are made and the social and political constraints and requirements that are super-imposed on pure market forces.

The sociology of institutions can refer to such things as organizational design, prior commitments, governance models, values, norms and perceptions. Transaction costs, agency theory and property rights are also important considerations within an NIE framework. These elements are highly applicable to the study of PPPs and have been used to examine why theoretical outcomes with respect to PPPs are not always realizable in practice. Further, given the unique outcomes based nature of health care, the NIE framework's focus on outcomes rather than profit-maximizing behaviours is ideal for use in analysis of PPP arrangements for health capital projects.

Figure IV: Overview of NIE Framework Elements



Institutions operate in an “institutional environment” where they are influenced and rewarded by demonstrating legitimacy and survival capabilities (Meyer and Rowan, 1977 in Scott 1987). PPPs also operate in these environments and therefore, the application of rules, norms and implicit social contracts can have important implications for the outcomes and expectations of capital projects. Scott (1987) argues that institutions form social order through a shared social reality, as a class of elements or as distinct societal sphere. PPPs can be considered as a distinct societal sphere as they represent not only a unique institutional arrangement but can also be considered a policy tool with representational meanings and underlying principles (Angerer & Hammerschmid, 2005). PPPs can then be evaluated within the context of transaction costs, agency theory, property rights analysis, governance, risk and complexity.

### Sociality and Political Rhetoric

Sociality or implicit social relationships can have a substantial impact on trust, mutual understanding and moral responsibility within the partnership. However, the absence of boundaries, increases the potential for politics and roles to be

misunderstood (Borchert, 2004; Sadran, 2004; Johnston and Gudergan, 2007). The challenge of the PPP arrangement, as with most partnerships, is that this information is generally not included in the contractual obligations. Therefore, the implicit social contract is wholly dependent upon 'actor behaviour' of the various stakeholder groups (Johnston & Gudergan, 2007) and dispute resolution mechanisms.

The macro perspective of political rhetoric has many facets and the implications of context can vary substantially from project to project. The three main considerations with respect to PPPs are the political climate in which the project is evaluated, the climate in which the project proceeds and the climate in which disputes are resolved.

Time of implementation is especially important for the health care sector, as policies influencing the implementation of the project are likely to change (Blanken A., 2008). Additionally, time of implementation can have an effect on value for money (VFM) considerations and the initial perceptions or community acceptance of the project. Because of the intimate link between government and private sector in these types of projects, shifts in government can also have implications on existing projects in progress. Political risks can also be more difficult to mitigate because they may include aspects of political symbolism. The PPP may become a representation or a vehicle of a political agenda or policy and as a result, must succeed or fail, at any cost (Johnston and Gudergan, 2007).

Rosenau (1999) argues that PPPs have the potential to create conflicting interests due to the varied pursuits and value systems of the two sectors involved in the contract. The private sector is predisposed to prioritizing shareholder return and taking

measured risks where as the public sector is influenced by regulations and authorities, political opinion and the achievement of societal goals (Rosenau, 1999). Additional problems arise due to the fact that public taxpayers may not welcome the idea of PPPs due to a perceived lack of transparency in the private sector. Full disclosure may also be an issue for the private sector who has an interest in protecting proprietary information to ensure their competitiveness (Rosenau, 1999; Flinders, 2005)

## Risk

Risk transfer is often cited as one of the major benefits of the PPP model and can refer to technical-rational risks, social risks and any other dimension that may affect the outcome of the partnership. Risk can have different implications to each of the stakeholders, be both positive and negative and stakeholders can have differing perspectives as to what constitutes a risk (Johnston & Gundergan, 2007). In PPP arrangements, risks are inherent in the project so the emphasis should be placed on the optimal allocation of risk or risk transfer. This can “incentivize” partners to ensure that objectives of the agreement are met (Reeves, 2005). Risk transfer has the opportunity to be extremely beneficial to the public sector but if not appropriately managed insufficient risk is transferred to the private sector (Flinders, 2005). There is very limited literature with respect to what is the optimal allocation of risk in hospital PPP arrangements but at a minimum, the success of the transfer of risk should be factored into the analysis of these arrangements.

In a study conducted by the Canadian Council for Public Private Partnerships (CCPPP) in 2003 regarding hospital PPP projects, the authors argued that the valuation

of risk transfer is a difficult exercise in PPPs, yet allocating a financial value to risk transfer is one of the few ways to objectively measure VFM of PPP arrangement against a traditional procurement approach (Canadian Council on Public Private Partnerships, 2003). In a proper risk analysis, there will be recognition that a conventional capital procurement process exposes the public to a number of risks including risks related to design and construction, operation, legislation, regulation, technology, residual value, finance and employment risks. Unique to hospital capital projects is the risk demand and supply imbalances and the ability for the hospital to meet the service demands of its region upon opening. Experience in the UK has demonstrated that the risk of construction costs remains one the most significant risks. In the National Health System (NHS) cost overruns have historically been 34% above the outlined business case estimates and 11% above the full business case estimates (Canadian Council on Public Private Partnerships, 2003).

Risk transfer may be more suited to non-essential services. Governments cannot allow essential services such as education and healthcare to fail, so the ability of the public sector to transfer risk to the private sector becomes non-existent and therefore no longer a benefit of partnership (Flinders, 2005). Under the Private Financing Initiative (PFI) in the UK, some failed partnerships have required the government to step in and subsidize a service and yet the core essence of the PFI contract is that the private sector should take on appropriate risk in return for the appropriate reward (Profiteering from Public Services: Issue 1: Novemeber 2001).



## Equity, Access & Improved Performance

Cost reductions and improved performance is often cited as a beneficial outcome of PPPs. If these cost efficiencies are narrowly defined and externalities (both long term and short term, expected and unexpected) are discounted, then partnering is not expected increase costs (Rosenau, 1999). Cost reduction can be at the expense of other dimensions of performance so that efficiencies are at the expense of quality or scope of the project (McKee, Edwards & Atun, 2006).

Externalities are of important consideration and are often ignored when measuring cost performance due to the fact that they are difficult to forecast but at times they ignored all together (Rosenau, 1999). The problem is that in the long run, they can result in substantial increased costs and changes to VFM considerations.

Equity can be promoted through increased competition (Rosenau, 1999). This is simulated either via bidding mechanisms or a need to innovate and therefore enhance performance. Equity can also become a form of risk where there is an expectation the public provision of services is equitable as it is expect to be in the provision of basic health services in Canada.

## Governance

The nature of PPPs require that inherent in the governance model is recognition that 'mutual adjustment' will be required, acceptance of mutual responsibility and 'social coordination' (Hodge, 2004; Lowndes and Skelcher, 1998). Governance problems for these types of partnerships typically arise due to technical-rational issues, social

repercussions or due to risk considerations, which are also considerations within the context of neo-institutional theory.

Governance with respect to accountability is important especially with such policy sensitive areas such as health care. If formal mechanisms are not in place to resolve disputes or change features of the agreement this can become a source of failure of the arrangement or at a minimum, delay the project. The degree to which these processes need to be formalized depends on the complexity of the project and the number of parties involved.

### Agency Theory

Agency theory, or the principal-agent problem, describes issues that arise when a not-for-profit entity or firm, the agent, acts on behalf of another individual or firm, called the principal (Buitelaar, 2004). To ensure that interests are aligned between both parties, mechanisms such as profit sharing, commissions or efficiency wages are employed. It is important that arrangements between agents and principles reflect risk-bearing costs and efficiently organize information to minimize problems resulting from asymmetrical information (Hill & Jones, 2007). This relationship is stipulated under contractual obligations. PPPs, depending on the adequacy of the contractual arrangement, have the potential to be highly exposed to agency problems based on the nature of the agreement. This was especially evident in the United Kingdom's Private Financing Initiatives (PFI) when contracts were not required to share gains received from refinancing at lower rates. A provision was later added to all contractual

obligations to ensure that refinancing was also beneficial to the principal as well as the agent (Profiteering from Public Sector Services: Issue 1: November 2001).

## Transaction Costs

Transaction costs are the costs associated with arranging and executing transactions and result when there is the potential for a party involved to behave opportunistically, for example seeking private benefit at the expense of the common good (Buitelaar, 2004). Costs are incurred in the action and prevention of this type of behaviour. The term transaction costs can also be used more broadly to refer to the resources required to reduce uncertainty or perform “due diligence” (Parker & Hatley, 2003).

Transaction costs are cited as one of the main reason that PPPs are not always successful in practice (Reeves, 2005). This is primarily due to the complex nature of contractual agreements or institutional arrangements. Contracts, especially within the context of PPPs, are fundamental to a transactional analysis because if appropriately constructed (i.e. a complete contract), they can lower the transaction costs of the agreement (Royer, 1999). Unfortunately, all encompassing contracts are difficult to create, as it would require that all parties foresee any potential events as well as agree on all recourses. Due to this limitation of bounded rationality, incomplete contracts are the reality of PPP transactions. Incomplete contracts generally result from asymmetrical information of the parties involved or difficulty in measuring or dictating required performance outcomes and thresholds for the parties involved [ (Buitelaar, 2004) (Royer, 1999) ].

Accountability is central to the success of the partnership and the area in which the most variability and problems can occur. It is difficult to argue that the public or private sector is more accountable, or that partnering for policy increases or decreases accountability (Rosenau, 1999). The government is accountable in two senses; firstly, when private capital is unavailable or withdrawn, and secondly, when partnerships fail through bankruptcy and inability to meet agreed upon goals. The public sector is then the provider of last resort when the project involves essential public services (Rosenau, 1995).

Regardless of the performance of the public sector the service must still be provided. PPP contracts have the potential to encompass performance criteria and explicit deliverables that ensure the project or service achieves standards. Financial penalties can be applied to ensure that the private sector is meeting their obligations and delivering the level of service that was promised (Flinders, 2005). Provisions can also be included that immediate control is returned to the public sector in the event that the contract is breached with respect to quality or any other key contractual obligations (Flinders, 2005).

### Property Rights

Standard property rights models, as opposed to transaction cost economics, assume that all bargaining before and after an investment is efficient (Royer, 1999). In practice, this is usually not the case.

Residual rights of control are important with respect to the health care sector when PPPs are employed. Hospitals are often transferred back to the state after some

pre-determined period of time or in light of failure of contractual obligations or performance, for example in La Trobe Hospital in Victoria Australia. Residual rights may become an issue in these situations as the rights are not explicitly stated as the result of incomplete contracts and can cause problems for the state and private sector during and after the transfer.

## Efficiency

A frequently cited fundamental rationale for entering into a PPP is that these arrangements are able to deliver increased efficiencies over services provided by the public sector (Flinders, 2005). This is in part due to the approach of the private sector to maximize performance and minimize cost or be eliminated by the competition and by the fact that private sector has access to technology and knowledge that may not be as readily available to the public sector. Based on studies of the PFI in the UK, overall the evidence for gained efficiencies are mixed and may suggested that PPPs are more suited to some sectors such as managing prisons but not others such as hospitals (Dunnigan & Pollock, 2003).

There is some controversy surrounding the establishment of efficiency. The main issue being that methodologies are inconsistent from sector to sector / project to project when attempting to determine VFM and the public sector baseline. In the UK PFI initiatives employ a Public Service Comparator (PSC), which is an estimate of cost using traditional procurement methods. The challenge is that there have been some reports that officials in the UK have “frequently overestimated the PSC in order to gain approval for projects and then generate impressive efficiency gains on competition”

(Hodge & Greve, 2007). Without a regulatory body or outside verification of costing methodologies, the efficiency argument can become moot.

### Evaluating PPP – what is success?

The challenge surrounding the evaluation of PPPs is at the most basic level, what constitutes success? Is a PPP successful because the project did not require refinancing? It is successful if shareholders received a targeted internal rate of return? If the public is satisfied with the services delivered or if the project is on time, on budget and within scope, does that result in a successful PPP? How does one gauge which factors are the determinants of a positive outcome and which stakeholders take priority or should take priority in these partnerships?

What constitutes success is varied in the literature and from the perspective of various stakeholders but there are some over-arching constructs that are labelled “success factors” of PPPs. Angerer & Hammerschmid (2005) state that these factors include “clear goals and responsibilities, an efficient and fair sharing of risks, incentives, monitoring and political support within an enabling regulatory environment”.

When evaluating the merit or success of a PPP the most rudimentary decisions must be considered. This includes the decision for the public sector to engage in partnerships in the first place, the level of risk transferred by type of partnership chosen, and the objectives that were set for the partnership. The appropriateness of the partnership can also vary across sector (Rosenau, 1999). Part of the challenge of evaluating the success of these relationships is that there is:

“a lack of independent evaluators; poor evaluation rigor; poor definition of the “counterfactual” against which the PPP is judged; evaluations by auditors general who, in most jurisdictions, cannot question government policy; the use of inaccurate discount rates for time value-of-money estimates of net benefit; inaccurate estimates of risk transfers from the public to the private sector; and predicted benefits being estimated at an early stage of a long-term contract, so that optimism and political sensitivity are both high. As well as the debatable value for money, critics have also charged that transaction costs have been high and competition weak despite being more reliable in terms of on-time delivery for major projects” (Hodge & Greve, 2007, p. 9).

**DRAFT**

## Public-Private Partnerships in Healthcare

According to Blanken and Dewulf, “governments are increasingly looking for ways to cope simultaneously with both booming health care costs and decreasing governmental budgets” and public-private partnership arrangements have emerged as one mechanism to manage this set of problems (Blanken & Dewulf, 2010). The literature reveals that this movement away from traditional public sector procurement approaches is motivated by the potential to transfer risks and some revenues to the private sector in order to create efficiency and control costs in the health sector. Blanken and Dewulf argue that despite the emerging trend towards use of PPP arrangements in the health sector it remains unclear to what degree these arrangements are able to respond to changing demands in the health care sector (Blanken & Dewulf, PPP in Health, 2010). The unique nature of the health system means that there are few proven methodologies by which to accurately measure the ‘success or failure’ of a PPP project in this sector. Further, the unique nature of the health system creates an increased relevance of the qualitative elements of the NIE model. Given the policy-sensitive nature for healthcare, stakeholder perspectives become increasingly powerful and qualitative measures which gauge the social and political constraints impacting the outcomes of PPP projects.

### Health Care in Canada

In Canada 70% of health care is publicly funded ranking Canada in the bottom third among OECD countries in terms of the proportion of healthcare that is funded



through the public system (Chodos & MacLeod, 2004). Physicians in Canada are paid by the public sector as independent contractors on a fee-for-service basis. Hospitals are not-for-profit entities with independent boards of directors but are dependent on public funding for the majority of their operating capital (Mickleburgh, 2010). The Canadian federal government is responsible for setting and administering national principles under the Canada Health Act (CHA), and the individual provinces and territories are responsible for delivering care within their jurisdictions (Health Canada, 2006). As such, coverage varies from province-to-province in terms of what services are insured by provincial health plans.

As in other developed nations, increasing pressures on Canada's publicly funded healthcare system have elevated the sector's interest in PPPs for hospital capital projects significantly (Canadian Council on Public Private Partnerships, 2003). In 2010, the annual OECD Economic Report for Canada cited health-care reform as a key challenge for Canada in the coming years. According to the report, the Canadian health-care system "offers top notch care for legislatively-defined essential services, without charge, to all residents". The report concludes that Canada's health outcomes are good but cites pressure for health-care cost control as a constant issue. With constraints set to tighten further in the face of current deficits and slow economic recovery in Canada, sustainability of the Canadian health system will be a critical issue as the country moves forward (Organization for Economic Co-operation and Development, 2010). Appendix IV provides more detailed information on the Canadian health care system.

The problem of sustainability of the health system is particularly evident in Ontario where, according to the 2010 Ontario Budget, health care spending accounts for 46 cents of every provincial program dollar and, if left unchecked, cost drivers could push health care spending to 70 cents of every program dollar in 12 years (Ontario Budget 2010). Ontario is Canada's largest province in terms of population with over 13 million people across the province in 2010 (Statistics Canada, 2010). In the province health care is coordinated and delivered at the provincial level through the Ministry of Health and Long-Term Care (MOHLTC) and fourteen Local Health Integration Networks coordinate health service delivery in Ontario or regional health authorities. The LHINs were established in 2006 through legislation that afforded these regional bodies authority to plan, integrate and fund health services in each of their local regions (Ontario LHINS, 2009).

# DRAFT

History of PPP Projects in Canada

Over 100 PPP transactions have occurred in Canada since the early 1990s to build or upgrade infrastructure assets (The Conference Board of Canada, 2010). In Canada, PPP arrangements are not about the privatization of public assets and ownership for any new assets remains with the public sector at the end of the contract term. The Conference Board of Canada study describes two waves of PPP projects that have occurred in Canada since 1990s described in the box below.

**Figure V: History of PPP Projects in Canada**

History of PPP Projects in Canada			
Since the early 1990s governments across Canada have been using PPP arrangements to build or upgrade infrastructure assets. Beginning in 2004/2005, governments across Canada began establishing PPP agencies or offices located within central agencies or line departments of provincial governments. As such, PPP projects in Canada can be described as occurring in the two major 'waves' described below.			
Wave	Years	Description	Projects
1	1990 – 2004	Projects that reached financial close before the establishment of the PPP agencies or offices Public sector owners acted as their own PPP procurement authorities	Confederation Bridge Highway 407 ETR Brampton Civic Hospital
2	2004 – onwards	for the first time Project which reached financial close under the direction or guidance of a PPP agency or office PPP projects were managed, co-managed, or guided through PPP agency or office	Sierra Yoyo Desan Resource Road Gordon & Leslie Diamond Health Care Centre Abbotsford Regional Hospital & Cancer Centre

Introducing PPP structures in Canada has been constrained to relatively policy-insensitive areas such as building construction and maintenance, in an effort to reduce financial pressures elsewhere in the system. As health care has historically been a politically sensitive topic for Canadians, PPP arrangements to support the health system have been used relatively infrequently. Traditionally, Canadian hospital projects have tended to utilize private sector participation in only limited ways such as for design,

build or outsourced operations and aspects of infrastructure delivery (Canadian Council on Public Private Partnerships, 2003).

### Complexity of PPP in the Canadian Health Care System

In considering PPP projects in the health sector in Canada, and more specifically, Ontario, the complexity of the transaction or project is an important consideration. In health care there are many elements of complexity including the dynamic nature of the health care demand and supply. Changes in the future patterns in health provision in a hospital are difficult to predict (Blanken & Dewulf, 2010). Three primary areas are cited as key areas that influence the changing dynamics of health provision including changes in the catchment population, changes in medical technologies and changes in policy (Blanken & Dewulf, 2010).

The changing dynamics of the health system creates unique challenges in the context of a PPP project as numerous actors in the partnership have to be coordinated, the complexity of service is increased and the political environment is more prevalent. Particularly difficult to health care projects in Canada is the multiple layers of governance and decision-making. For example, in Ontario a hospital would be required to interact with the Health Capital Division of the Ministry of Health and Long-Term Care, the Local Health Integration Network that coordinates service provision for their catchment area. In addition, the infrastructure and construction complexities and governance must be addressed including federal, provincial and municipal regulatory bodies. Complexity is an important consideration for the Brampton Civic Hospital case study.

## Case Study

### Purpose/Aim of the Study

Given the recent interest in public private partnerships as a mechanism to meet infrastructure needs in the public sector while managing government deficits, this case study examined what the critical success factors are for provincial governments to effectively capture the theoretical value of PPP arrangements in the execution of infrastructure projects in the health sector. To examine these questions, a pilot project in Ontario, Canada where a public-private partnership arrangement was used to build a hospital was chosen. It is our hope that the information collected as part of this case study will inform the execution of PPP arrangements and/or development of associated policies in other OECD countries and will be a mechanism for disseminating lessons learned to inform future similar endeavors in the province of Ontario. Finally, the case study was also used to conduct an analysis of the perceptions of healthcare stakeholders affected by or with the potential to affect the outcomes of PPP projects in order to better understand current views and perceptions of PPP arrangements among stakeholders in the health care community in Canada.

**Figure VI: About Brampton, Ontario, Canada**

About Brampton		
<p>The Brampton Civic Hospital is located in Brampton, Ontario, Canada a growing suburb of Toronto, Ontario, Canada. With a population of approximately 433,806 people in 2006, Brampton was Canada’s 11<sup>th</sup> largest city (Brampton Economic Development Office, 2009). A comparison of key socio-economic indicators for Brampton reveals that the population is growing primarily through immigration, particularly from the South Asian community – in fact between 1996 and 2001 the South Asian population, particularly Punjabi Sikhs, grew from 34,000 to 63,000 (City Direct, 2010).</p>		
Key Indicators	Brampton	Ontario
Percentage of Population who are recent immigrants	7.4%	4.8%
Percentage of the Population who are visible minorities	38.8%	19.1%
Population Growth (2006)	3.3%	1.5%
<i>Source: Government of Ontario, 2006</i>		
<p>The need for a new hospital in the area was identified in the early 1990s as steady population growth in Brampton was stressing the system’s ability to provide necessary health services to the region. As such, in the late 1990s the Ontario government announced that a new hospital would be built in the Brampton area to fulfill these needs. In May 2001, the provincial Minister of Finance announced that the hospital would be built using a PPP model (Auditor General of Ontario, 2008).</p>		

## The Brampton Civic Hospital Project

The Brampton Civic Hospital is an infrastructure project that began in the late 1990s in response to the need for a new hospital in the Brampton region. Brampton Civic Hospital is part of the William Osler Health Centre (WOHC), one of Ontario's largest hospital corporations serving the Etobicoke, Brampton and surrounding areas in Ontario, Canada (Auditor General of Ontario, 2008). The project timeline can be split into 3 major phases:

1. Decision to build and contractor procurement;
2. Building, and
3. Initial operation.

### Decision to Build and Contractor Procurement

The initial decision to build the Brampton Civic Hospital was made by the Health Services Restructuring Commission. This commission was established in 1996 with a four-year mandate to make decisions regarding restructuring Ontario's hospitals and make recommendations to Ontario Ministry of Health and Long-Term Care on reinvestment and restructuring of other parts of the health system (Government of Ontario, 2000). From the time the decision to build the hospital was made, there were two major leadership changes in the Ontario government. The decision to build the hospital was made under the leadership of the New Democratic Party (NDP)'s Premier Bob Rae. In 2001, the Progressive Conservative (PC) party overtook the NDP and Mike Harris become Premier. Finally, in 2003, Dalton McGuinty of the Liberal Party was

elected to power. The timeline below depicts the changes in government, the key decisions and the cost estimates for the project from the late nineties to 2003 when the contract to design, build and provide non-clinical services for the hospital over a 28-year period was awarded to the successful vendor, the Health Infrastructure Consortium of Canada (HICC).

### Building/Construction

The physical construction of the hospital occurred over the three-year period of 2004 – 2007. During that time there were two key changes relating to governance. The first was the creation of Infrastructure Ontario (IO), a crown agency with the mandate to oversee all alternative financing and procurement (AFP) projects in the province. AFP was a term developed by the Ontario government to describe various types of PPPs. The second major change was the passing of the Local Health Integration Network Act in March of 2006. The legislation established fourteen regional bodies in the province to oversee the funding, planning and integration of health services in the province of Ontario. The Brampton Civic Hospital fell under the mandate of the Central West LHIN.

Throughout the building period the cost estimates for the hospital construction changed. Initially, following the finalization of a \$467 million CAD contract with HICC for design, construction and provision of non-clinical services over a 28-year period, WOHC updated the cost estimates to build the facility under the traditional approach to \$525 million. This included \$67 million dollars in design and construction risks that the hospital estimated could be transferred to the private sector under the PPP



arrangement – this amounts to a 13% cost overrun with respect to the government procurement model.

### Initial Opening

The hospital initially opened with 479 funded beds in December 2007. The government intended to phase in the remaining beds over the years as demand for services grew in the Brampton community. Prior to the opening of the hospital, the William Osler Health Centre decided to temporarily close another site, the Peel Memorial Hospital. The decision to close the site was made based on discussion in the months leading up to the opening of the Brampton Civic Hospital based on resource availability, both human and financial. In the weekend leading up to the hospital's opening, a "flash cut" was undertaken to move patients, staff, records and equipment from the Peel Memorial Hospital to the new Brampton Civic campus. In total, 234 patients were transferred to the new facility (CBC, 2007).

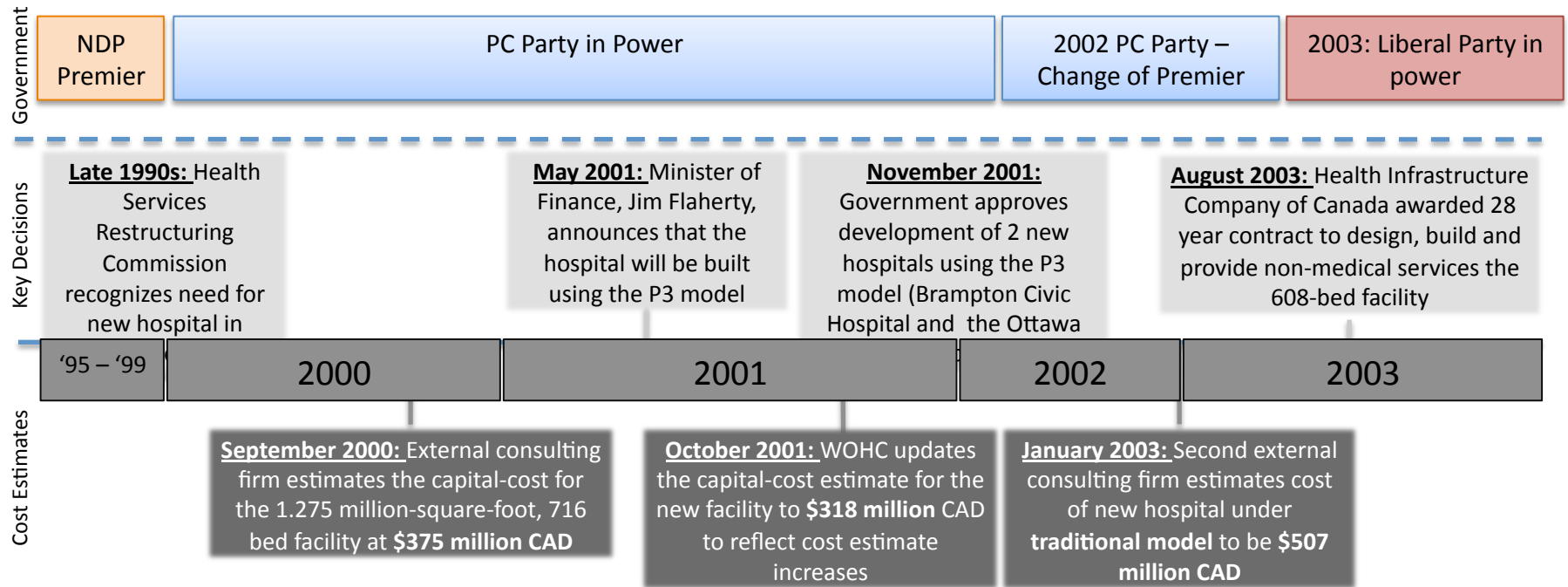
In December, following the deaths of two patients who were admitted through the Emergency Room at Brampton Civic Hospital, concern in the community began to grow. The patients' families and the media speculated that the long waits and lack of sufficient staff in the Emergency Room had led to medical errors in the deaths of the two patients. The concerns of the community peaked in December 2007 when over 1,500 people marched in protest through the streets of Brampton demanding the government take action. The political opposition and community advocacy groups blamed the PPP arrangement for the medical issues at BCH.

In late December 2007, the Premier of Ontario appointed a hospital supervisor. The provision for the appointment of a hospital supervisor is an article in the Public Hospitals Act of Ontario. Under the Act, a hospital supervisor can only be appointed at the recommendation of the Minister when it is considered in the public's best interest to do so. The Lieutenant in Council must approve the appointment and the government must give 14 days notice to the board before the appointment. When in place, the supervisor has the exclusive rights to exercise all the powers of the board and CEO (Service Ontario, 2010).

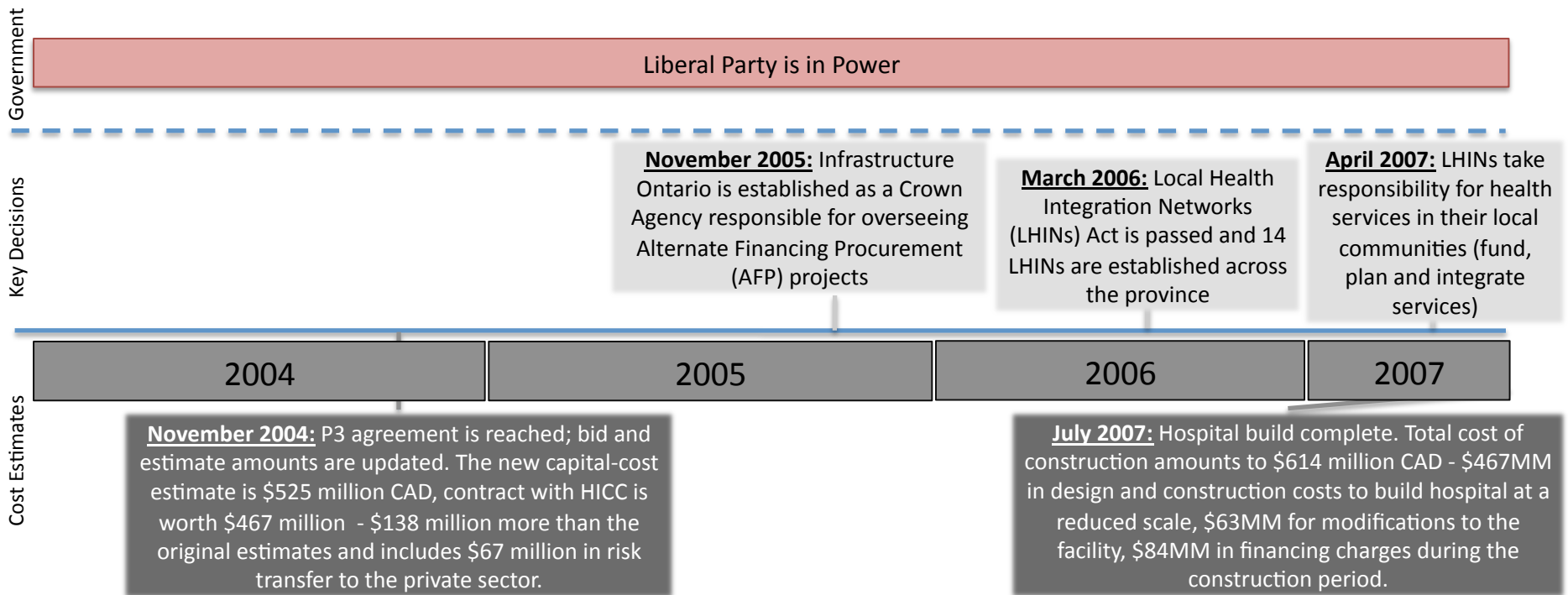
Figure VII: Case Study Timeline for Phases 1, 2 & 3

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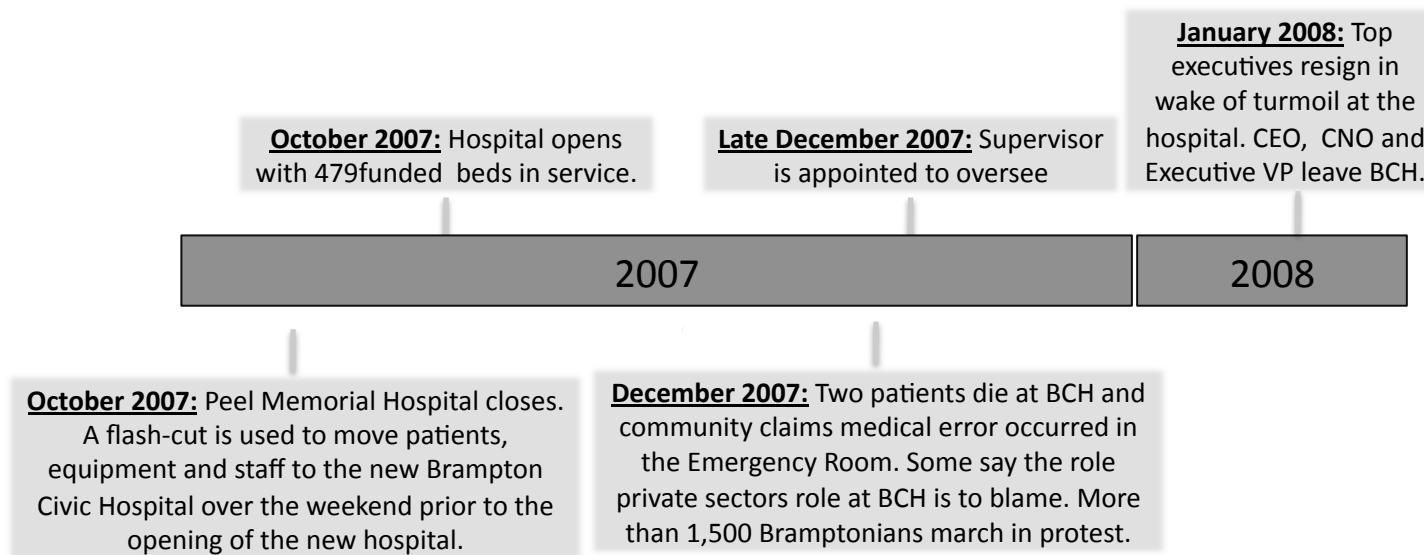
## Phase 1: Decision to Build



## Phase 2: Building / Construction



### Phase 3: Initial Opening



## Analysis

Due to the relative novelty of PPP arrangements in the Canadian health care system, it was important that a variety of sources were explored and analyzed to better understand the implications of the model in a politically complex sector. We initially conducted a literature review of PPPs in both the health care sector and other policy sensitive areas to better understand some of the challenges surrounding this type of arrangement. We studied a variety of PPP literature but overwhelming, existing frameworks focus on controlling for the financial elements of PPPs and less on the qualitative elements of the PPP model. Employing an NIE framework for analysis allows for the incorporation of social costs and benefits in the evaluation of PPP outcomes. The NIE framework takes into account key qualitative elements such as good governance, dispute resolution mechanisms and the political operating environment. The additional benefit of an NIE framework is that it does not neglect quantitative factors in the evaluation of PPP outcomes, such as the magnitude of transaction costs and the completion of a public sector comparator (PSC).

Brampton Civic Hospital was chosen as a case to test the application of the NIE framework to PPP for a variety of reasons. Firstly, as one of the first hospitals in Ontario built as a PPP, it was a pilot project from which much can be learned. Second, at the time of the hospital's construction there were very minimal mechanisms in place at the provincial level to resolve disputes. Since the completion of Brampton Civic Hospital, the Ontario government has created Infrastructure Ontario (IO), an agency responsible for

oversight and project management of PPP infrastructure projects (Infrastructure Ontario, 2010). Infrastructure Ontario has created the *Infrastructure Planning, Financing and Procurement Framework for Ontario's Public Sector* or IPFP Framework. This framework establishes 5 fundamental principles of public infrastructure projects in Ontario (Infrastructure Ontario, 2010):

1. The public interest is paramount.
2. Value for money must be demonstrable.
3. Appropriate public control/ownership must be preserved.
4. Accountability must be maintained.
5. All processes must be fair, transparent and efficient.

As Brampton Civic Hospital was constructed prior to the creation of IO, we were able to evaluate the outcomes of the Brampton Civic Hospital using the NIE framework and subsequently comparing the NIE model to the present IO framework. Our goal is to identify what gaps may continue to persist in Ontario despite the existence of the IO framework. Thirdly, an in-depth value-for-money audit of the financial outcomes of the Brampton Civic Hospital project was conducted by Ontario's Auditor General (Auditor General of Ontario, 2008). The provincial Auditor General is an independent audit office serving Ontario's Legislative Assembly responsible for conducting value-for-money, attest, and compliance audits of governments, Agencies of the Crown and other broader public sector organizations (Ontario Auditor General, 2010). In 2008, the results of the Auditor's value-for-money audit of the Brampton Civic Hospital PPP were published. The report captured findings and VFM audit results regarding the PPP project and has been

used in our analysis to support the quantitative review of the Brampton Civic Hospital PPP.

Our analysis of the Brampton Civic Hospital led to the conclusion that although all elements of the NIE framework in some way influenced the observed outcomes of the Brampton Civic Hospital project, some elements were more influential in this case than others. In order of magnitude they were:

1. Social and Political Rhetoric
2. Risk
3. Cost Reductions
4. Equity, Access and Improved Performance
5. Governance

*Agency Theory, Transaction costs, Efficiency and Property Rights* were analyzed to a lesser extent due to a lack of publically available information or applicability to the Brampton Civic Hospital case. However, when applying an NIE framework to analyze PPPs, it is important to for all elements to be studied.

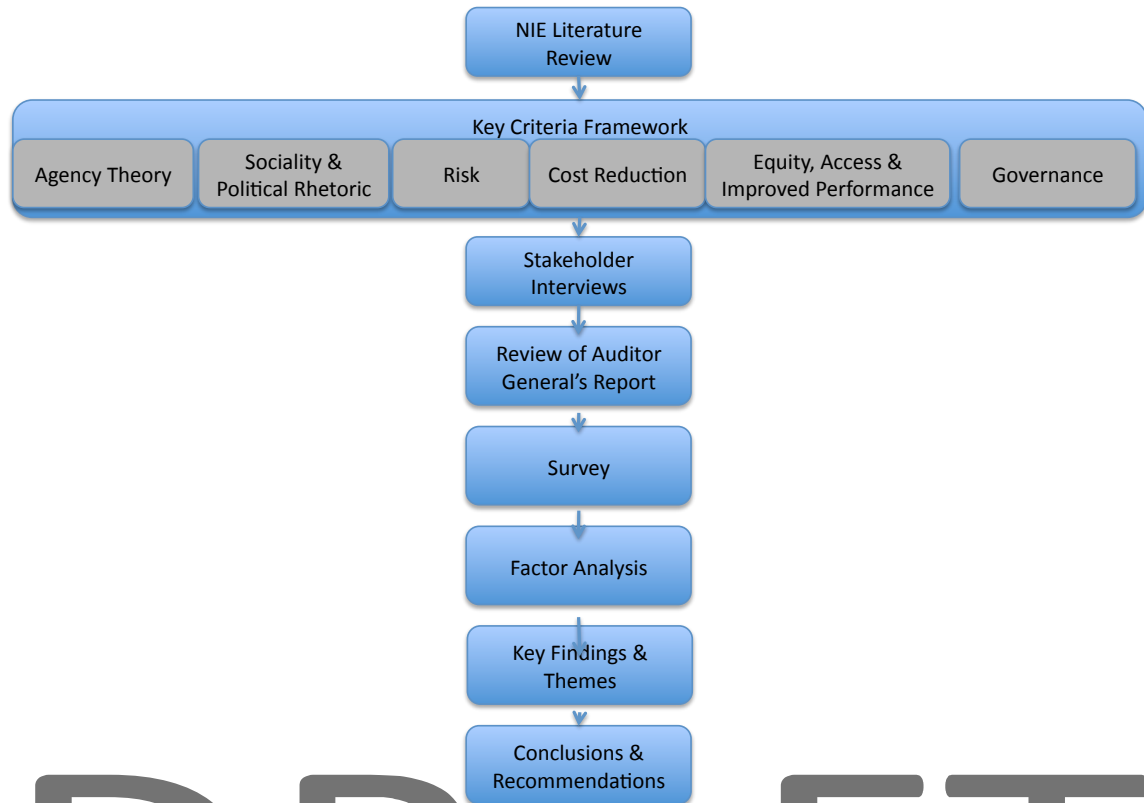
We used our 6 key NIE framework elements above to structure questions for our interviews. We applied a stakeholder framework where each interviewee was asked the same questions. Responses were compared for consensus as well as identification of reoccurring themes (Technical Appendix). Questions were intended to explore general perceptions about PPPs and specific circumstance and outcomes related to the Brampton Civic Hospital. The interviews, data from the Auditor General's Report and our literature review informed the development of our survey questionnaire. The intent



of the survey was to understand and evaluate current perceptions and knowledge of PPPs within an informed population of the Canadian health care sector. How this group perceives the model can highly influence both the general public's acceptance of the model and can influence the Ontario government with respect to their decisions to use this model for infrastructure and capital projects. Participants were surveyed about their options and perceptions of PPPs in general, PPPs within the health sector and the Brampton Civic Hospital case. Finally, health outcome and the performance of the hospital were also evaluated to assess the success of the project, as the quality of output is the ultimate dimension of success when evaluating performance in the health care sector. The quality of the outputs of Brampton Civic Hospital relate to both the operating environment and the operations themselves. Figure 8 provides a summary of the analysis framework.

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Figure VIII: Analysis Framework



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In the following section we discuss each of the six (6) key elements of the NIE framework related to the Brampton Civic Hospital project, integrating our main findings from the following key sources:

1. NIE literature review,
2. The Auditor General's report,
3. Interviews and survey results.

Implications of the findings are discussed including how they influence future health care related PPP projects in Ontario.

## NIE Element 1: Sociality & Political Rhetoric

*Sociality and Political Rhetorical* are elements of PPP that cannot be addressed in contracting but must be managed equally as carefully. This factor truly addresses the “public” aspect of the PPP as governments are held accountable by their constituency and as such, the perceptions and understanding of stakeholders in the general public are important considerations to PPP projects, particularly in policy-sensitive areas such as health care. As such, our analysis of sociality and political rhetoric relating to Brampton Civic Hospital focuses on understanding stakeholder perspectives re: PPPs.

*Sociality and Political Rhetorical* can affect the outcomes of the project at key phases including:

1. Decision to use a PPP for a health capital project;
2. Execution of the PPP; and
3. During dispute resolution.

### Stakeholders

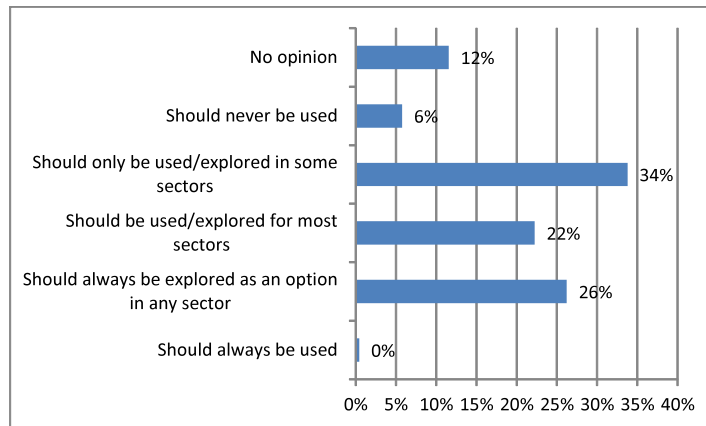
Stakeholder interviews highlighted a variety of considerations that make the PPP model politically more difficult to employ. Most of the issues identified in our study were related to the novelty or ‘newness’ of the model in Ontario. Stakeholders felt that Ontarians do not generally understand the details of the PPP model and there is a perception of not-for-profit services being “sold” to the private sector. This makes the model “psychologically challenging” for Ontarians because there is no understanding of the extent to which private sector businesses are already involved in Ontario’s health care system, with generally positive outcomes.

Stakeholders also indicated that there were two main issues with the optics of the model, the perception that there are long-term escalating costs when the private sector is involved in a public sector project.

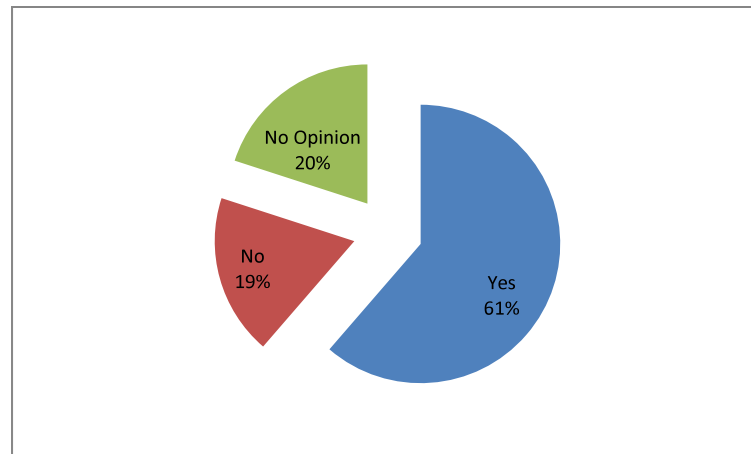
### Survey

Survey results indicated that participants felt that the use of PPPs was appropriate in some sectors and not others. The majority of participants indicated PPP were appropriate for designing and building hospitals as well as the provision of non-clinical services (Technical Appendix). Respondents who self-identified as PPP knowledgeable also indicated that a Design-Build-Finance-Maintain or DBFM model was appropriate for hospitals builds as well as the provision of non-clinical services as the following figures indicate.

Figure IX: Response to Survey Question "What is your general impression of the use PPPs in Canada?"



**Figure X: Survey Responses to Question "Do you feel that the PPP model is appropriate for designing and building hospitals as well as the provision of non-clinical services?"**



The main concern cited by participants was that the private sector making money in the public domain was inappropriate (see Figure IX). This may be an artifact of the public administration and provision of health care services in Ontario. This concept of an intolerance for a private role in the provision of health care services in Canada was also reflected in the stakeholder interviews.

### **The Brampton Civic Hospital Stakeholders**

Stakeholder interviews revealed a variety of problems relating to the perception of the Brampton Civic Hospital project. From our interviews, we concluded that there was no clear or formalized plan to manage communications with the public and promote transparency with respect to the PPP project. As the project proceeded and the hospital was to open several issues emerged that created political tension. One issue that was particularly politically sensitive was that the Brampton Civic Hospital was originally intended to be the second hospital in Brampton. As the opening of the new hospital approached, it became apparent there were insufficient resources (human and

financial) for two hospitals to be operated in the area. As a result, it was decided that the Peel Memorial Hospital in Brampton would have to be closed and all existing staff would be transitioned to the new hospital. Staff, patients and physical resources were moved from the Peel Memorial Hospital to the new Brampton Civic Hospital site over a weekend, employing a “flash cut” method. Streets in Brampton were shut down to facilitate the movement of patients, staff, equipment and records.

The closure of the old hospital led to three key issues:

1. The closing of the Peel Memorial Hospital became a significant social and political issue. Hospitals are institutions in their communities and as a result of the Peel Memorial Hospital closure, influential stakeholders were concerned.
2. The “flash cut” method employed for moving staff from Peel Memorial to Brampton Civic Hospital created anxiety both internally amongst hospital staff and outside the hospital in the Brampton community. Hospitals are complex systems with a variety of protocols, rehearsed responses and repetitive actions. All of which require familiarity with the environment and the team to ensure seamless execution of health services.
3. The closure of the hospital created the perception that the area was going to be underserved. The community felt they needed two hospitals and after years of anticipation, they would only have one.

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4. The unrest and dissatisfaction in the community also acted as a catalyst for PPP opposition groups in the community and provided an opportunity for opposition groups to push their own political agendas.

Although, the fact a PPP model was used for the construction of Brampton Civic Hospital cannot be directly linked the closure of the Peel Memorial Hospital, the resulting perspective that the PPP was responsible. A clear and formalized communication plan would may have helped clarify the real issues.

### **Response to Stakeholder Concerns: Government Intervention**

One of the unique issues that arose with the case of the Brampton Civic Hospital was the appointment of a supervisor to oversee the management of the hospital. A series of events lead to the appointment of a supervisor including the provision of additional funding, the appointment of a hospital coach and finally the intervention of the government to appoint a supervisor. According to the governing provincial legislation, the Ontario Hospitals Act, the supervisor has the following abilities and responsibilities. He or she is (Canadian Legal Information Institute, 2011):

- Able to exercise all the responsibilities of the hospital board, the corporation, its officers and members in governing the hospital
- Responsible for providing direction to Senior Management as necessary and to his/her own judgment

In October 2006, the government of Ontario announced that they would provide unanticipated emergency funding to the new Brampton hospital in the amount of \$18.9 million to fund the purchase of equipments and furnishings (Ontario Government,

2006). Two months later, the provincial government made a second unanticipated funding announcement indicating that they would contribute an additional \$34 million to help Brampton Civic Hospital; \$24 million was allocated to capital funding for equipment and related accommodations (e.g. electrical fixtures and building structures) and \$10 million to support operational funding requirements (Ontario Ministry of Health and Long-Term Care, 2006).

On December 31, 2007 the government officially appointed a supervisor for Brampton Civic Hospital – Ken White. Mr. White, a former hospital CEO, was given the mandate of focusing on improving communications between the community and the hospital, reducing emergency department wait times and ensuring the hospital had sufficient nurses and other staff to meet the needs of patients at the hospital (Ontario Government, 2007). Important considerations are that:

- The appointment of a Supervisor to a hospital is an unusual occurrence in the province
- While little quantitative data is available on the history of supervision in Ontario, several cases in which supervisors have been appointed are documented to demonstrate the serious nature of the role

Publically, there is little consensus as to why the hospital underwent supervision. Some of the reasons cited could be attributable to the PPP, others, the operation of the hospital. However, it is clear that the supervisor's initial focus on improving communications with the Brampton community, demonstrates the significance of the issues that arose with respect to the political and social rhetoric in the case.



Interviews with senior public official were more revealing with respect to the circumstances surrounding the appointment of a supervisor. Interviewees expressed the view that the reason an advisor was appointed was due to the anti-PPP movement in the community and that the media was encouraging the negative response to the closure of Peel Memorial Hospital. One interviewee indicated that the placement of a supervisor was important politically because it made the government accountable to the public for what was felt to be a lack of services and resources in that community. The Supervisor also improved community relations with the hospital by putting a Punjabi Communicator in place to speak to the community on behalf of the hospital.

#### **Survey**

Survey results indicate that amongst the broader health sector community, there was a lack of transparency surrounding the reasons for implementation of a supervisor. This was evident in the varied responses received as to what specific factors led to hospital supervision in the case of Brampton Civic Hospital. Responses are summarized in Table I on the following page.

**Table I: Summary of survey response to question “What issues led to Brampton Civic Hospital being placed under supervision in 2008?” (N = 77)**

General Performance Issues	48%
Exceeded Budget	43%
Problems with Administration	40%
Increased ED Wait Times	35%
Not Meeting Service Volume Obligations	31%
Clinical Service Quality	30%
Don't Know	23%
Problems with Physicians	21%
Problems with Nursing Staff	21%
Increased Surgical Wait Times	18%
No Opinion	12%
Increased Mortality	12%
Problems with Non-Clinical Services	10%

Note: Participants were allowed to pick any many responses as they felt appropriate

Survey results also revealed that half of the participants felt that after the appointment of the supervisor, performance improved at the Brampton Civic Hospital. The other half believed that performance remained the same.

**Table II: Survey responses regarding performance a Brampton Civic Hospital**

Diminished Performance	4.8%
Same Performance	47.6%
Improved Performance	47.6%

## NIE Element 1: Implications of Analysis

In a politically sensitive area such as health care, the Brampton Civic case presents a very strong argument for the need to have robust communication plans in place in order to address the concerns and needs of the community when engaging in a PPP project. Effective stakeholder engagement supported by structured and open communications is an important consideration and must address concerns surrounding private sector involvement in health care. PPPs are an attractive model to meet infrastructure needs in the health care systems in developed nations. As PPP implementation and management models evolve, it would be prudent to include more robust and rigour mechanisms for engaging the public both to increase awareness and understanding of the advantages and true nature of PPP and to promote effective community engagement in PPP projects.

## NIE Element 2: Risk

Developing risk-sharing mechanisms that enhance the returns to both the public and private sector is one of the most commonly cited advantages of the PPP model. The literature on risk and risk transfer specifically related to PPP projects is robust. There are many different types of risks that must be considered and addressed in any PPP project.

In a recent publication on Public Private Partnerships by Deloitte and Touche, they stated that there are over 75 generic risks that can be identified in most PPP projects, however most fall into one of the following three broad categories of risk (Deloitte & Touche Presentation, 2009):

1. Policy;
2. Design and Constructions; and
3. Maintenance and Operation.

Our analysis focused on understanding how risk in any of the broad or narrow categories can be effectively managed by in PPP project, and in particular what unique risk management needs may arise for a health capital project. As such, in our analysis risk is treated as a single dimension; however we recognize the complexities inherent to risk management in PPP projects at the micro risk level.

PPP's are based upon a stewardship model that allows the private sector to take a more aggressive role in aspects of the project to which they had previously been excluded in traditional procurement models, such as design, financing, operations and maintenance. The PPP model has also evolved to include incentives for desirable behaviour from the private sector. For example, in the DBFM model incentives are theoretically created for the private sector to design and build a “better” facility if they are to be responsible for the ongoing operation and maintenance for, say, the next 25 years. This ongoing relationship is part of the return on investment calculation and is expected to result in better upfront design and build considerations and more effective operations over the life of the project.

Although the literature regarding risk transfer is robust our research revealed that capturing the theoretical value articulated in the literature with respect to risk transfer can be difficult. Specific challenges are discussed below.

### **Stakeholders**

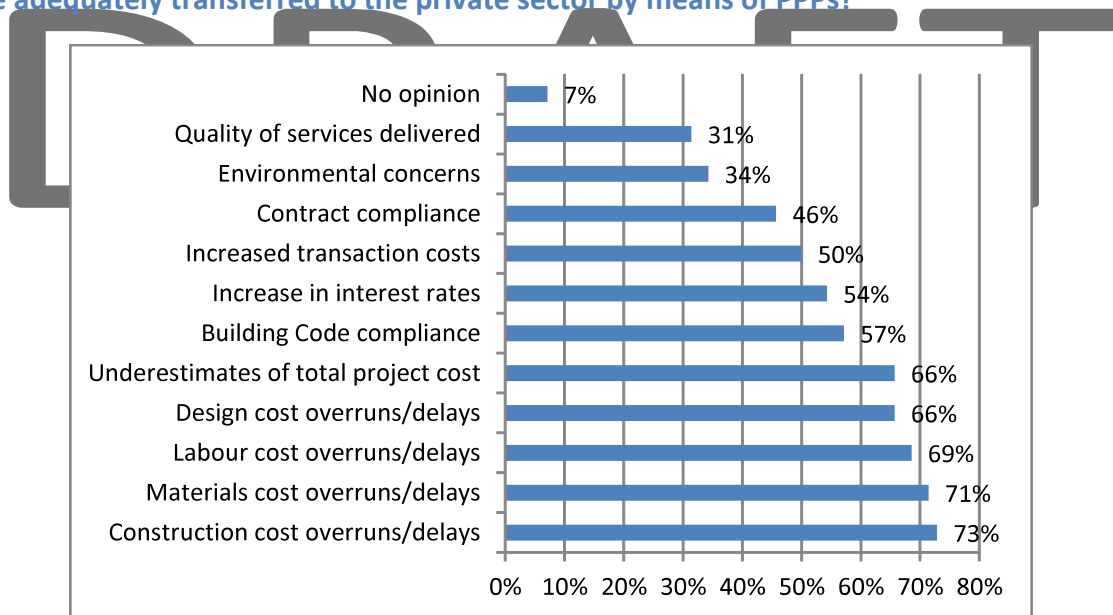
The attractiveness of risk transfer was evident in the stakeholder interviews. The main benefit was cited as full maintenance of hospitals resulting from a fundamental understanding of life cycle value. When asked which aspects of the project should be transferred to the private sector one respondent with extensive health care experience (both private and public sector) felt that everything should be transferred except for the core business, the direct clinical care provided by nurses and physicians. The attractiveness of this model is that high risk/high cost operations can be outsourced to the private sector and there is an appetite to move any services that the private sector can do more efficiently at a lower cost, controlling for quality.

### **Survey**

Survey results revealed that one of the challenges of executing best practice with respect to risk transfer is public opinion. Public appetite for risk transfer has the potential to influence greatly decision-making in the health sector and, as such, the efficiencies of health care related P3 projects. Our research indicated that while there is a willingness to transfer construction and design of the hospital as well as Parking Services to the private sector (Technical Appendix), there was an overwhelming objection to transferring Nursing Services, Non-Nursing Clinical Services and Hospital

Operations (Technical Appendix). This result was somewhat surprising as many Ontario hospitals regularly employ private sector agencies to provide nursing services when there are staffing shortfalls. The outsourcing of clinical services such as Diagnostic Imaging and Laboratory Services has also become more commonplace in Ontario. Public opinion and intolerance for ‘privatization’ of health care in Canada may partially explain the observed results. However, what is clear from the survey results as it pertains to public-private partnerships across the spectrum, from health capital projects to the provision of nursing and laboratory services, is that the role of the private sector is still not well known or well understood even amongst the health care community.

**Figure XI: Survey Responses to question "Which of the following risks do you feel can be adequately transferred to the private sector by means of PPPs?"**



Note: N = 70

Survey participants were also polled on what elements they felt needed to be in place for risk transfer to effectively occur. Respondents indicated that of primary importance are governance structures, property rights and reviews of construction

quality. Most surprising was the second most popular response. Lack of clarification of property rights is related to issues surrounding complete contracting (or lack there of) and does not play a role in the current PPP model in Ontario. This may highlight the need for more publically available information or education on PPPs in Ontario's health care sector.

### **Factor Analysis**

Risk transfer and the acceptance of risk transfer is a conceptually critical idea in the PPP model. Based on our interview data, it became evident that there were going to be challenges surrounding the acceptance of risk transfer. An exploratory factor analysis was used to determine whether or not risk transfer grouped to underlying constructs. A factor analysis reduces correlation data to a smaller number of constructs to determine if there are any underlying consistencies. This type of analysis can demonstrate if there are inherent groupings in the responses.

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**Table III: Survey respondents' ranking of factors that must be in place for risk transfer to occur in a PPP model**

Factor	Mean	Rank	SD
Good Governance Structure	1.40	1	0.614
Comprehensive Contracts	1.66	2	0.76
Review of Construction Quality	1.66	3	0.668
Clarification of Who Maintains Property Rights	1.77	4	0.786
Review of Design Quality	1.79	5	0.883
Similar Goals and Values of Public and Private Sectors	2.06	6	1.051
Understanding of Private Sector Motivation	2.21	7	1.141
Profit Sharing Between Public and Private Sector	2.38	8	1.208
Understanding of Public Sector Motivation	2.47	9	1.12
Supportive Political Environment	2.51	10	1.14
Simplicity of Scope	2.87	11	1.096
Multiple Firms Involved	3.34	12	1.185
Similar Organization Structures of Firms	3.55	13	1.119

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A correlation matrix of all 13 risk transfer variables indicated that all variables should be included in the factor analysis. A scree plot was used to determine the number of factors.

**Table IV: Initial and rotated factor matrix of risk transfer variables based on screen plot**

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of	Cumulative	Total	% of	Cumulative	Total	% of	Cumulative
		Variance	%		Variance	%		Variance	%
1	3.746	28.816	28.816	1.739	13.375	13.375	2.297	17.67	17.67
2	1.865	14.343	43.16	2.571	19.778	33.153	1.789	13.759	31.43
3	1.46	11.234	54.394	1.213	9.334	42.487	1.437	11.057	42.487
4	1.076	8.276	62.67						
5	0.899	6.915	69.585						
6	0.874	6.724	76.309						
7	0.75	5.772	82.082						
8	0.616	4.736	86.817						
9	0.543	4.18	90.998						
10	0.406	3.126	94.124						
11	0.371	2.853	96.976						
12	0.248	1.909	98.886						
13	0.145	1.114	100						

Extraction Method: Maximum Likelihood.

Three of the factors accounted for 42.49 per cent of the total variance, indicating that a model with three factors would be sufficient to represent the data.

**Table V: Factor grouping of risk transfer variables after rotated factor matrix (loading)**

Rotated Factor Matrix(a)	Factor		
	1	2	3
Similar Organization Structures of Firms		0.336	0.478
Good Governance Structure	0.453	0.343	
Similar Goals and Values of Public and Private Sectors		0.678	
Comprehensive Contracts	0.596		
Profit Sharing Between Public and Private Sector	0.439		
Clarification of Who Maintains Property Rights	0.458		
Understanding of Public Sector Motivation			0.609
Understanding of Private Sector Motivation	0.607	0.563	
Supportive Political Environment		0.545	
Simplicity of Scope			
Multiple Firms Involved			0.986
Review of Design Quality	0.729		
Review of Construction Quality	0.583		

Factor 1- Controlling mechanisms -- Factor 2- Goals and Alignment -- Factor 3-Complexity/Governance

Analysis indicated that responses loaded on three main themes control or attest functions, goals & alignment and complexity & governance (Appendix X). Based on statistical contribution to the model, control/attest function appears to account for majority of correlation. This was not surprising because if the public does not trust the

model or less accepting of it, it would suggest that there would be a need to ensure that there is more control in place. However, this is in stark opposition of the idea of risk transfer and the basis of the PPP model. The whole idea is to contract out the risk by paying a premium for others to bare it. It is inherent inefficient if risk is contracted out and then controlled. In essence, risk is then paid for twice, firstly by paying a premium to transfer and secondly, by having public sector workers monitoring it when they could be engaged in other activities.

The alignment of goals, the environment and an understanding of entity motivation is important and suggested to be a key success factor in our literature review. Interestingly, political factors were grouped with goals and values. This suggests an overarching supportive environment to be in place for risk transfer to occur. Our research indicates that it is the intangibles, such as acceptance of the model and management of communication which impacts the political climate that makes some of these projects more successful than others and was a contributing factor to the problems surrounding Brampton Civic Hospital.

The third factor, complexity/governance was interesting in that constructs such as simplicity of scope and some political factors did not load on the factor but are suggested to major contributors to challenges surrounding risk transfer and complexity. This may be indicative of the novelty of the model and the fact that respondents would require a comparative understanding and have viewed iterations of the PPP model in both simple and more complex arrangements to understand the implications.

## Auditor General's Report on Brampton Civic Hospital

The report completed by the Auditor General of Ontario provided insights into the issue of risk transfer and value for money in the Brampton Civic Hospital case. Three findings were highlighted in his report that suggest that one of the challenges for public sector participants is the estimation of risk that will be transferred to the private sector. Specifically, the audit revealed that:

1. Original estimates for risk transfer for the project included \$67 million in risks transferred to the private sector. This was equivalent to expecting a 13% cost overrun if the traditional construction method was used, which was deemed as excessive.

2. In order for risk transfer to occur, there must be sufficient competition in the marketplace to ensure that risk can actually be transferred to the private sector. The audit concluded that due to the limited number of companies in the province of Ontario willing to do the work or undertake a project of this size, the same companies would have been bidding for and doing the work regardless of which procurement method was chosen. Therefore the AG questioned why the public sector comparator assumed that the risk of overruns would be so significantly greater in the public design-build-finance and would be different under the P3 approach.

The results of the Auditor's reveal that best practice, as articulated in the PPP literature, was not followed in the decision to build the Brampton Civic Hospital using a PPP arrangement. Firstly, the public sector comparator was completed following the

decision to pursue a PPP arrangement rather than in order to decide if the model was suited to this project. As a result, estimates of risk were made after the initial decision to pursue a PPP and therefore it was difficult to accurately measure the risk transfer benefits of the arrangement.

## **Interviews**

Our in-depth interviews with stakeholders revealed that one of the challenges in the BCH project was that project participants and leadership were not necessarily experience in working in a P3 mode. Without prior knowledge and experience in P3 arrangements, the estimates of risk transfer made by the hospital were inaccurate and as a result made it difficult to measure the impact of the project from a risk transfer perspective.

In-depth interviews with stakeholders revealed that despite the understanding of the theory of risk transfer to the private sector, in the case of BCH, the government was unwilling to transfer control of key elements to the private sector. The contract arrangement that is in place for the 28 year period with the HICC is very detailed and the hospital maintains much of the control over items were risk transfer could have occurred. For example, a review of the agreement between the William Osler Health Centre (WOHC) and The Health Infrastructure Consortium of Canada (THICC) revealed that in addition to the 30 page summary contract, 29 separate schedules were developed which composed the main body of the document suggesting vast complexity in the day-to-day management of the contract over the 28 term. As a comparison, a

recent PPP project for the build and finance of two Ontario hospitals for the Hamilton Health Sciences had only 5 supporting agreement schedules (IO, 2010).

More specific examples of where complete risk transfer to the private sector was difficult to execute on this particular health capital project include (William Osler Health Centre, 2004):

1. On Page 7 of the summary agreement between WOHC and THICC under the section *Changes in Circumstance*, the contract indicates that any changes in law that effect the project agreement materially in terms of costs will be split between WOHC and THICC equally subject to a specified maximum after which THICC will be charged no more.

2. WOHC also requests in the agreement that THICC provide a construction schedule that is sufficiently detailed to enable WOHC to ensure that construction is proceeding as planned. The contract indicates that as THICC will receive no payment until construction begins this is a powerful incentive to ensure that construction is completed on-time. More recent approaches to provisions for delays in construction have included incentives such as having the private sector assume any additional interest charges in the event that construction is delay. As this increases the private partners total overall project costs, it reduces the return for the project and creates an incentive for delays in construction to be avoided. As such, detailed reviews of construction schedule are less essential by the public partner.

The review of the BCH contract and comparison to more recent project agreements for similar health capital PPP suggests that there was a reluctance of WOHC to relinquish control and hence effectively transfer risk to the private sector for key elements. It appears that in the building of BCH under a P3 model and the execution of the agreement with the private sector, the public may not have achieved the same efficiencies compared to other infrastructure projects because the public may not be as willing to outsource as many components of the project to the private sector.

### **NIE Element 2: Risk Implications**

Although the literature is robust and sound methodologies exist for transferring risk from the public to the private sector, it is evident that certain qualitative factors need to be in place for this to occur. Our study of Brampton Civic Hospital suggests that it is an example of a scenario where the public sector was not able to effectively capitalize on opportunities for risk transfer via a PPP arrangement for several reasons.

1. Following a best practice methodology of completing a public sector comparator and value for money assessment prior to the decision to pursue a PPP arrangement is critical.
2. Knowledgeable and experienced participants should be involved to assist in accurately estimating these costs associated with risk transfer in order effectively measure risk transfer.
3. The unwillingness of the public sector to relinquish control to the private sector of certain elements may compromise the ability to execute the theory with respect to risk transfer as the public sector must be willing to relinquish control

to the private sector for decision-making on elements transferred to the private partner.

### **NIE Element 3: Cost Reductions**

Cost reductions should be one of the primary beneficial outcomes for the public sector when considering the utilization of a PPP model. Two typical scenarios that result in cost reductions are savings from economies of scale and the reduction of margins, competed away during the bidding process. In Ontario the key question is whether there are sufficient private sector parties that are able and willing to bid in order to support an efficient PPP market. If this is not the case, then the existence of a competitive market becomes an important consideration as to whether or not a PPP model is appropriate.

#### **Stakeholders**

The competitiveness of the market varies by province. Stakeholders indicated that they felt that Ontario may have enough firms able to compete to warrant this model but it is important to note that comparatively, the Western provinces and Quebec have access to more firms able to bid on these types of projects. These jurisdictions have increased the competitiveness of their local market by engage firms outside of their province and/or from outside of the country. For example, British Columbia in its first health capital PPP for the design, build, financing and maintenance of the Abbotsford Regional Hospital and Cancer Centre engaged with a consortium of vendors that included an international health architecture firm from Australia called Silver Thomas Hanley. Working in partnership with local firm Musson Cattell Mackey

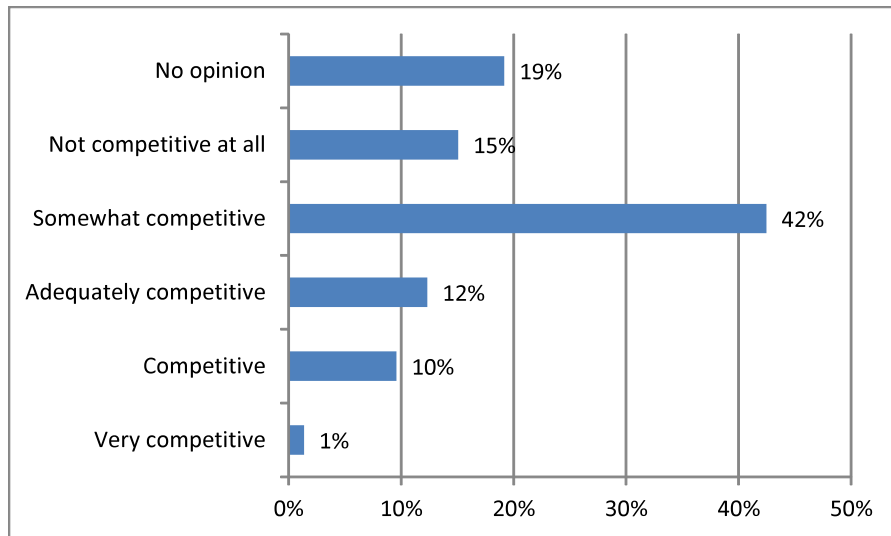


Partnership, the two were jointly responsible for the design elements of this DBFM project (Partnerships BC, 2008). Interviews also revealed that in Ontario, international vendors are being attracted into the PPP market increasing the competitiveness. For example, proceedings from a recent Ontario Hospital Association conference revealed that Spanish contractors have begun bidding on local PPP tenders.

The consensus is that the Canadian marketplace will continue to develop and competition will increase both locally with continued use of the PPP model and international firms that have participated in non-health care sector PPPs in Canada will enter into the health care space. One stakeholder felt that Ontario needs to better understand the margins on risk transfer so that there are increased efficiencies in bids.

**Survey** **DRAFT**  
Survey results reveals that 23.3% of respondents felt that the Canadian marketplace was adequately competitive to very competitive with respect to comprehensive PPP tendering for hospital infrastructure projects. Only 15.1% indicated that the market was not competitive at all.

Figure XII: Summary of Responses to question “Please rate the competitiveness of the Canadian marketplace in terms of comprehensive PPP tendering for hospital infrastructure projects”



Note: N = 73

In the future, the perception that there is adequate local competition reduces opportunities for foreign firms, thus reducing potential efficiencies of the PPP model.

### Auditor General's Report

The Auditor General's report compared cost estimates of a traditional procurement approach versus PPP procurement. The report indicated that there were several shortcomings in the analysis. For example, the Auditor General noted that the assessment was not based on a full analysis of all relevant factors and was done too late to allow any significant changes or improvements to be made to the procurement process.

More specific concerns raised by the Auditor General in his VFM assessment included:

1. Hospital did not investigate the reasons for significant differences in cost estimates provided by two independent consulting firms for the total cost estimate of building and service provision at Brampton Civic Hospital;
2. Concerns that the estimates for the government to complete the project were overestimated. Specifically, certain design and construction costs were overstated, and there were costs for non-clinical services that should not have been included in the estimates when comparing to the costs under the PPP arrangement.
3. The province's cost of borrowing at the time of the agreement was 5.45%. This was lower than the weighted average cost of capital charged by the private-sector consortium. The AG estimated that had the province financed the project itself, the savings would be approximately \$200 million CAD over the life of the project's PPP arrangement (25 years).
4. The transaction costs related to many of the professionals (lawyers, consultants, technical experts, etc.) were not included in the total cost estimates for the project.

Over the approximate three-year construction period, the total cost came to \$614 million CAD, comprising \$467 million in design and construction costs for the hospital; \$63 million primarily for modifications to the facilities to accommodate installation of equipment; and \$84 million in financing charges.

### NIE Element 3: Cost Reduction Implications

Despite public perceptions and the Auditor General's report, the PPP may still have been the preferred option. While it is true that the cost of capital in developed countries is always less for governments, this does not necessarily mean that the cost reductions related to the hospital over 25 years would continue given the efficiencies that the private sector could bring to the maintenance and operations of the hospital. As such, it is imperative that cost reductions be evaluated with all relevant costs accounted for. Simply comparing the cost of capital for the public sector to the private sector represents an incomplete analysis of the true costs associated with the building and maintenance of infrastructure over the long-term. Finally, the reality of PPPs is that the premium paid for risk transfer to the private sector must be evaluated to ensure that over the complete contract life these efficiencies will be attained.

It is evident from our analysis of the Brampton Civic Hospital case that there were substantial cost overruns and therefore cost reductions were not necessarily realized on this particular PPP project. The Public Sector Comparator and Value for Money analysis was done incorrectly and after the decision to use a PPP model was made, as opposed to being part of the decision process to engage in this model. Additionally, it is unclear as to what long-term cost savings may be realized over the complete life of the contract. Finally, our discussions with stakeholders also revealed that risk transfer was paid for but was not achieved as the contract did not effectively transfer decision-making and authority for key elements to the private sector to realize the benefits of the model.

One cost overrun of particular interest was due to changes in the design of the facility. In this case, the hospital was designed several years in advance of construction. The unique nature of health care means that there are ever changing technology and evolving clinical best practices that must be carefully considered in assessing the relationship between design and timelines. If the time frame is too long it may not be realistic to assume that the design will continue to be sufficient for the hospital. To address this problem, contracts either need to have built in flexibility to allow for revisions in design or the lead-time from design to construction needs to be shortened to reduce this risk. Alternatively, this is also a risk that could be transferred to the private sector to protect the public against cost overruns associated with design changes needed to accommodate technology. For example, IO is now making the procurement and placement of technology the responsibility of the private sector so that any design or cost impacts related to technology are the responsibility of the private sector.

#### **NIE Element 4: Equity, Access and Performance Improvement**

Within the NIE framework, *Equity & Access* are considered separate constructs from *Performance Improvement* but when evaluating a health sector project, access to care is a key measure of performance. Given this unique linkage, we have chosen to discuss these items together. Equitable access to hospital services are critical to the perception of performance in Ontario's health care system (Ontario Ministry of Health and Long-Term care, 2010).

In addition to access, indicators that measure the quality of the provision of care and patient perception of the experience, all form dimensions of the relative quality of the hospital. Measuring hospital performance is extremely complex as there are numerous indicators and measures that can be used to attempt to gain a better understanding of how a facility performs. The metrics that we included in our study are intended to be “big dot” indicators of performance but are by no means the definitive approach to measure hospital care.

### **Stakeholders**

Perception of quality of care at Brampton Civic Hospital has been a driver behind the community unrest surrounding the project. Deaths and adverse events in close proximity to the opening of the hospital sparked substantial political interest in the community. The way in which these events were presented to the public by some media outlets suggested that problems were due to the PPP. Care outcomes should be should also be analyzed at an institutional level when hypothesizing that adverse events are the result of procurement model.

### **Publicly Available Performance Indicators**

The Canadian Institute for Health Information (CIHI) and the Ministry of Health and Long-Term Care (MoHLTC) collect data on acute care discharges, ambulatory care, post-acute care and rehabilitation services. Using the data from CIHI and other ancillary data sources, the Ontario’s MoHLTC publishes hospital reports that focus on key performance indicators that are monitored at the provincial level. We primarily focused

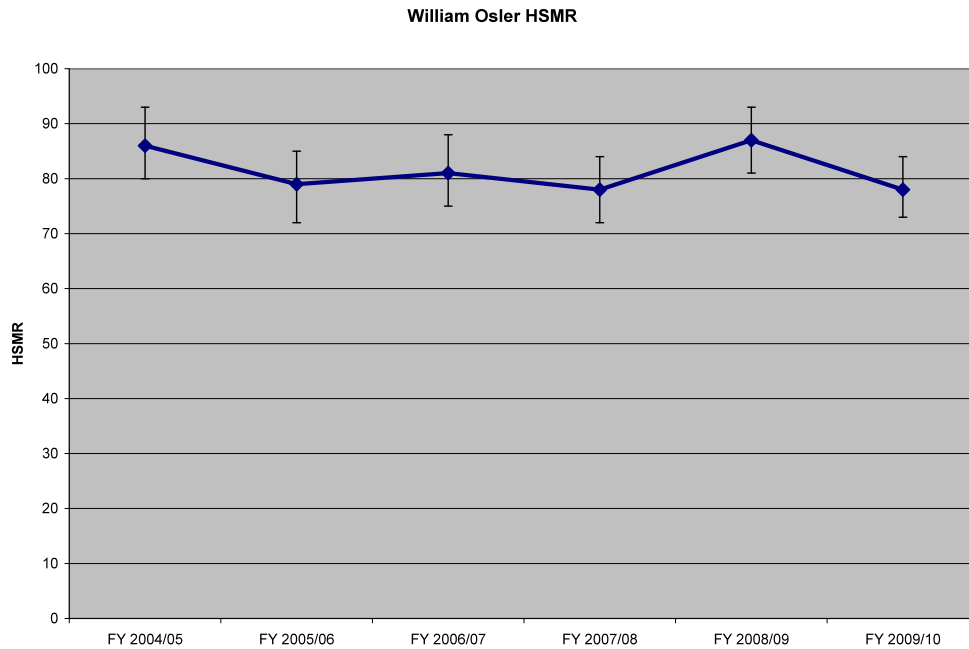
on two indicators Emergency Department Wait times and Hospital Standardized Mortality Ratio (HSMR) which are accepted as indicators of hospital performance. We also looked at the dimension of subjective patient experience as reported publically by the Ontario Hospital Association at [www.myhospitalcare.ca](http://www.myhospitalcare.ca).

### **Hospital Standardized Mortality Ratios**

The HSMR compares “the actual number of deaths in a hospital with the average Canadian experience, after adjusting for several factors that may affect in-hospital mortality rates, such as the age, sex, diagnosis and admission status of patients” (CIHI, 2008). The ratio expresses the observed number of deaths compared to the expected number of deaths. This indicator is important because it is both tangible and binary in nature. Would a patient, who died, based on actual risk factors, been expected to die. The publically available data for Brampton Civic Hospital is part of the data for William Osler Health Centre. WOHC’s HSMR performance has been trending well below 100, indicating that fewer deaths than would be expected given a set of factors, have occurred.

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Figure XIII: Corporate HSMR for William Osler Health Centre



## Patient Satisfaction

Patient Satisfaction is a qualitative dimension that addresses the overall experience of the hospital stay within different care segments. Acute and Emergency satisfaction rates the overall impression of the experience including the quality of care, trust for nurses and physicians and whether or not the patient would recommend the hospital to others. The paediatric dimension addresses similar qualitative judgments from the point of view of the parent and how they felt their child's care was addressed.

It was important to gauge the perception of care provided at William Osler Health Centre prior to the opening of Brampton Civic Hospital and after the opening. Based on the information outlined in Table IV, William Osler was performing well below the provincial average for patient satisfaction in acute care and emergency services prior to the opening of Brampton Civic Hospital site.



**Table VI: Patient Satisfaction Scores compared to Provincial Averages prior to the opening of Brampton Civic Hospital**

	<b>Current Hospital Score</b>	<b>Current Provincial Average</b>	<b>Previous Hospital Score</b>
William Osler Health Centre	Start date: April 1, 2006  End date: March 31, 2007	Satisfaction Score out of 100	Start date: April 1, 2005  End date: March 31, 2006
Emergency Overall Impressions: Score out of 100	60.5	74.1	61.2
Acute Overall Impressions: Score out of 100	77.2	82.3	77.3
Paediatric Overall Impressions: Score out of 100	72.8	84.2	Not Rated

Source: <http://www.myhospitalcare.ca>

**Survey**

The same metrics were not available publically after the hospital opening but participants in our study were surveyed with respect to their feeling of the quality of health service delivery at Brampton Civic Hospital. Respondents indicated that they felt the care was “Average” when compared to other community hospitals in Ontario (39.7%) and 21.8% felt it was “below most hospitals” (N= 78). It could be argued that public perception of the quality of care at William Osler Health Centre has remained consistent prior to and after the opening of the new site.

Survey participants were asked if they felt if the PPP arrangement resulted in issues with the delivery of care (as highlighted by the media) and of the respondents 58.3% felt that it did (N=84) (Technical Appendix).

One of the most informative and unintended results was a theme that emerged when respondents were allowed to input responses to questions. There were numerous comments relating to the privatization of health care. In some cases, the perception was that services contracted out to the private sector would result in a tiered system where not everyone would have access to care. Several respondents indicated similar concerns when they were prompted to comment on why they felt that the PPP model was not appropriate for designing and building hospitals as well as the provision of non-clinical services.

Selected Survey Responses:

- *“Not all patients will be treated equally”*
- *“Private sector cases divided care at times for those who can afford it, socialized medicine doesn't discriminate care”*
- *“The model will not be universal to all Canadians who need medical care. The marginalized citizens will never have a fair chance as much as the more affluent.”*
- *“Vested interest will dictate which patients get treated”*
- *“...Marginalized persons will be further marginalized to make room for Cadillac Care for the rich and privileged”*

These responses were unexpected and may indicate some confusion surrounding the model. The public may be mixing the concepts of privatized health care with public health care systems using the private sector to deliver goods and services. These two models have very different funding and delivery implications.

#### NIE Element 4: Equity, Access & Performance Improvement Implications

Health indicator analysis revealed that public perception surrounding the performance of the William Osler Health Centre and Brampton Civic Hospital has remained consistent. Wait times in the Emergency Department have been increased for complex patients and decreased for less complex patients. Wait times have been consistently longer than the provincial average. However, risk adjusted mortality ratios for the corporation are lower when compared to the average Canadian experience. Going forward, it would be important to better understand why the hospital is performing below average in some areas, not just for an improved customer experience but provide a better understand as to what, if any artifacts of the PPP led to Brampton Civic Hospital's current performance levels. This is important because the public may interpret perceive service delivery problems to be attributable to "PPP hospitals" and ignore any superior performance.

An unexpected observation from the survey data was the perception that if services were contracted out under the private sector, not everyone would have access to care, resulting in a tiered system. Survey questions were not designed to test this perception but it became evident as several respondents indicated similar concerns. In opposition of this perception is the fact that the literature surrounding PPPs indicates that increased access to services are an advantage of the PPP model (Rosenau, 1999). This speaks to the need of further education of the public surrounding the PPP model and transparency of projects indicating which aspects of the hospital operations are provided by the private sector and what is delivery by public sector employees.

## NIE Element 5: Governance

Inefficient governance structures have been cited as contributing factor to unsuccessful P3 projects (Johnston & Gundergan, 2007). There are critical governance links that arise in these arrangements where technical-rationality is at risk and appropriate dispute resolution needs to occur. Our research echoed this observation. Participants indicated that the number one factor for risk transfer to occur is a good governance structure (Technical Appendix) and also ensures a mechanism for dispute resolution (Padova, 2010).

The challenge is that hospitals may not have access to the resources or possess in the in-house expertise to manage the transition of the hospital to the hospital employees.

### **Brampton Civic Hospital Project Agreement versus Current Ontario Best Practice**

A comparison of the Brampton Civic Hospital summary agreement with a more recent hospital PPP project agreement revealed that the dispute resolution parameters for the BCH project were less substantial than those evolved under the Infrastructure Ontario IPFP framework. The BCH project agreement includes four points with respect to dispute resolution whereas the recent Hamilton Health Sciences project has a specific schedule to support dispute resolution mechanisms for the contract (IO, 2010).

## NIE Element 5: Governance Implications

Hospital capital projects are unique in their need for good governance. The complexity of the number and type of organizations involved in these transactions

creates an inherent need for clarity with respect to decision-making and dispute resolution. Clearly defining these accountability structures in the formal contract agreement is important to the successful execution of the project.

### Other Factors

*Transaction Costs, Efficiency and Property Rights* are important factors in the NIE model. Issues surrounding *Transaction Costs* were discussed under *Cost Reduction* factors and *Property Rights* were not discussed in any detail as they do not differ at this time in Ontario for hospitals built under either procurement mechanism. *Efficiency* is an area in which further analysis would have been informative but this information is not publically available and *Performance Improvement* may speak to areas in which improved efficiency should be targeted but was not achieved as a benefit of the PPP model.

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## Themes

One of the questions in the survey focused on the area of risk. There were a number of specific questions with respect to risk transfer in the Brampton Civic Hospital case. In the absence of longitudinal data it was not possible to conduct trend analysis. We then utilized factor, principal component, analysis. This methodology allowed us to group issues and characteristics by a common set of themes. Based on statistical significance we identify 11 key variables from the analysis. The risk factors for identifying as the:

- Control or attest function
- Goal alignment
- Issues of complexity and governance

We then constructed a factor matrix in order to determine the key themes that have merged with the statistical analysis. The three key themes are as follows:

- Communications based on well articulated goals
- Public sector control of the key risk factors
- Timing, flexibility, best practice and governance in the four stages of design -- build -finance -- maintain

## Conclusions

Our study has numerous implications with respect to the tactical and strategic execution of PPPs in policy sensitive areas such as health care. It is important to remember that Brampton Civic Hospital was a pilot PPP hospital built under a DBFM arrangement. At the time, the PPP project approach for capital projects was a novel experience in the health sector in Ontario. As a result the project occurred in an environment where both government employees and the public had little experience with the PPP model applied in the health sector. With this in mind, in retrospect many things could have been executed or managed differently but it is important to take advantage of the learnings from this case to make improvements to the execution of other PPP projects in the health system in Canada. Our conclusion is that none of the problems encountered in the case were the direct result of private sector participation in the project through a PPP approach. This was confirmed by an assessment of the benchmark metrics provided by the various data gathering agencies. The metrics indicate that deaths and negative clinical outcomes were no different at William Osler Health Centre than what would have been expected in a large general (non-teaching) hospital.

For the future, several areas for improvement were addressed in the Auditor General's of Ontario's report and it is evident from stakeholder feedback and public response in the media. In addition, based on our study we found that:

- Management of communications with the public is critical when undertaking a PPP in policy-sensitive sectors. This is particularly important in Canada given the sensitivity to 'privitization' of health services. When compared to more policy-insensitive areas such as roads, this dimension has traditionally not been an area of focus as community concerns with respect to private sector involvement appears to be less prevalent. This problem is best addressed by formal communications and engagements plans for the public to assist in the management of critical issues in a timely manner.
- The unwillingness of the public sector to relinquish control to the private sector of certain elements complicates the execution of risk transfer theory as articulated in the literature and ultimately leads to an inability to extract value and benefit from the PPP model.
- Best practice and technology in the health sector are ever changing. To ensure that hospitals are built with the most current best practices in mind, PPP contracts must accommodate these changes and remain flexible to ensure the public is protected from cost overruns associated with design changes (within a reasonable time frame). Mechanism we uncovered to manage this include minimizing the lag time between design completion and construction and pushing design risk to the private sector through contracting.
- Overall, survey results suggest that public knowledge of the PPP model is still evolving, even amongst health care professionals. Further education is necessary in order for the public to understand the implications of PPP project and to

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ensure that health care professionals have the opportunity to become advocates of the model. Investment in education is truly an important consideration as the PPP model continues to evolve and is used more frequently in Ontario.

In the case of Brampton Civic Hospital, it is apparent that some stakeholders took advantage of the discontent in the community regarding the issues that arose in the building of the hospital to present a negative picture with respect to the involvement of the private sector in health care. With a lack of knowledge of the PPP model and its intricacies, opportunities exist for stakeholders to distort the role of the private sector in PPP projects and paint them as the villain. This demonstrates the need to understand and further invest in qualitative considerations with respect to rhetoric and political discourse in the NIE framework in the development of PPP management models.

Some of the challenges presented herein on the Brampton Civic Hospital project have been addressed in the subsequently established Crown agency, Infrastructure Ontario. In their framework for PPP projects, Infrastructure Ontario provides best practice guidelines for PPP projects in Ontario and acts as the facilitator of PPP projects providing guidance and expertise needed to execute these infrastructure projects. It is our hope that the key findings from this study and the application of the NIE framework informs the future case analysis of PPPs as well as assists in the improved delivery of PPPs in Ontario's health sector.

There was considerable concern within the community with respect to the efficiency and effectiveness of the new hospital. These concerns were exacerbated

when a number of deaths occurred at the new hospital. Stakeholders suggested that these deaths were the result of private participation in the design, development and building of the hospital. The private contractor was also responsible for many of the non-clinical services and certain operating and maintenance provisions. A media review indicates that there was considerable concern with respect to the operations of the hospital and the role of the private sector in the perceived poor clinical outcomes.

There were no doubt a number of serious issues with respect to the BCH public -- private -- partnership model. Our conclusion is that none of these problems were the direct result of private sector participation in this project through a PPP approach. This has confirmed by an assessment of the benchmark metrics provided by the various data gathering agencies. The deaths and negative clinical outcomes were no different than what would be expected in a large general (non-teaching) hospital.

The obvious conclusion is that there was a major breakdown in communications at every stage of the project. Design changes were not adequately taken into account to reflect technological change from the original design parameters to the final requirements for a modern hospital. The Ontario government did not adequately inform the community with respect to the closure of the Peel Memorial Hospital. As a result, the community was unprepared for the initial outcome which resulted in no net new beds added to the regional hospital capacity. It is apparent that a number of stakeholders took the opportunity derived from this lack of communication to present a negative picture with respect to the involvement of the private sector in healthcare.

The identification of communications is one of the key themes in this analysis is consistent with the neo-institutional framework and the need to understand the important qualitative considerations with respect to rhetoric and political discourse.

## Recommendations

Based on our analysis and conclusions, we propose the following recommendations:

1. A formal communications and engagement plan for managing public perceptions, particularly in Canada, given the sensitivity of ‘privitization’ of health services will assist in the management of critical issues in a timely manner.
2. As the PPP model evolves into more complex and policy sensitive areas such as health care, careful planning must be taken to clarify the nuances of the PPP model in order to effectively manage the elements of sociality and political rhetoric that can have significant influence on PPP project outcomes.
3. Opportunities exist to enhance the current models of PPP management to include additional support to health service providers post-construction and enhance communications with the public to improve PPP outcomes.

There is potential for this model to help the province of Ontario deliver to the public improved access to health services and improved quality of care through the expansion of infrastructure. This is best achieved by managing both the qualitative and quantitative considerations applicable to predicting the outcomes of PPP projects.

Investments need to be made not only in minimizing financial risk but addressing any political and social risks that are perceived to arise in policy sensitive projects.

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## Glossary

**Acute Care Discharges** – << ODJ include CIHI definition>>

**Ambulatory Care** – << ODJ include CIHI definition>>

**Post-acute Care** – << ODJ include CIHI definition>>

**Rehabilitation Services** - << ODJ include CIHI definition>>

**PPPs** – Public-Private Partnerships

**Ministry of Health and Long-Term Care (MOHLTC)** –

**Local Health Integration Network (LHIN)** –

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## Appendix I – Factor Analysis Technical Appendix

This appendix present the technical details and further information of the survey presented in the in the main paper.

### Survey Design

The survey was designed to better understand how healthcare professionals perceive the use of PPPs in Ontario’s health care system and opinions surrounding the outcomes of a particular hospital case.

To design the survey, a preliminary literature review was conducted to better understand potential challenges that arise during the PPP process and content experts were interviewed and common themes were extracted. This information formed the bases of the questionnaire. The survey was pre-tested on a group of Schulich MBA students who were familiar with the Ontario health care sector.

The instrument used to collect data from a convenience sample was an electronically administered questionnaire comprised of 22 questions divided into four sections; demographic information, general perception of PPPs, questions requiring a working knowledge of PPPs and questions specific to Brampton Civic Hospital. Each respondent was required to self-identify that they were familiar with the topic of each section to access survey questions. This was intended to ensure that the responses represented the perceptions of a knowledgeable respondent.

All participants were prompted to respond to the demographic questions and general PPP questions. One hundred participants self identified that they had a working

knowledge of PPPs and were then prompted to answer 5 questions on PPPs and 88 respondents self identified that they were familiar with Brampton Civic Hospital and where then prompted to answer 7 questions relating to the hospital.

The 22 questions were a mix of open ended questions, likert-style questions and multiple choice. The multiple choice questions were randomized to minimize any effects of a position bias.

## Sample

The study sample was drawn from health care and related professions. Participants had either recently attended a health care conference, were alumni of the Schulich School of Business in the school's health care database, or clients of a particular health care retailer. Participants were spread throughout Ontario. The survey was emailed to 2,398 addresses with 230 responding, a response rate of 9.6%.

## Tables, Figures and Selected Analyses

### *Demographics*

Outlined below are the frequencies related to respondents' demographic information. Tables include information relating to sector of employment, position within organizations, role seniority and number of years employed in the health sector

**Table VII: Sector of Employment**

Sector	Frequency
Banking and Finance	0.4%
Biotech/Pharmaceutical	1.7%
Education	1.7%
Government and Civil Service	2.2%
Health Care	90.4%
Industry	0.9%
IT	0.9%
Not-For-Profit	1.3%
Procurement	0.4%

N=230

**Table VIII: Position in Organization**

Position within Organization	Frequency
President/CEO/CFO/COO	5.5%
Senior Vice President	0.9%
Vice President	5.0%
Senior Manager or Director	21.9%
Experienced Non-Manager	37.0%
Manager	21.0%
Entry Level	5.0%
Other	3.7%

N=219

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**Table IX: Number of Years in Health Sector**

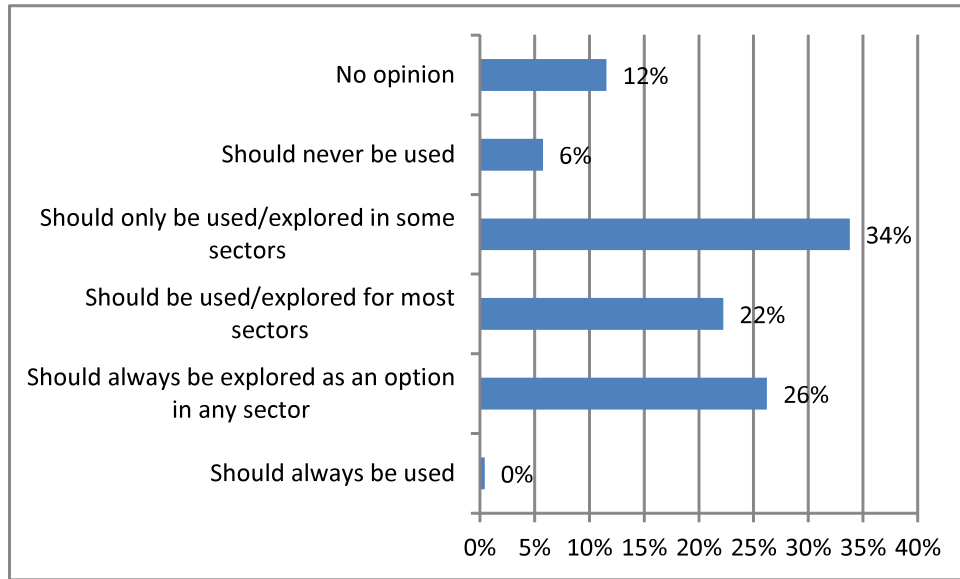
Years Experience	Frequency
Under 10	18.6%
10 to 14	11.3%
15 to 19	10.9%
20 to 24	18.6%
25 to 29	13.6%
30+	25.8%
No Health Sector Experience	1.4%
Mean Years	20.3
Median Years	20.0
Range	42.0
SD	10.8
N=221	

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*General Opinion of PPPs*

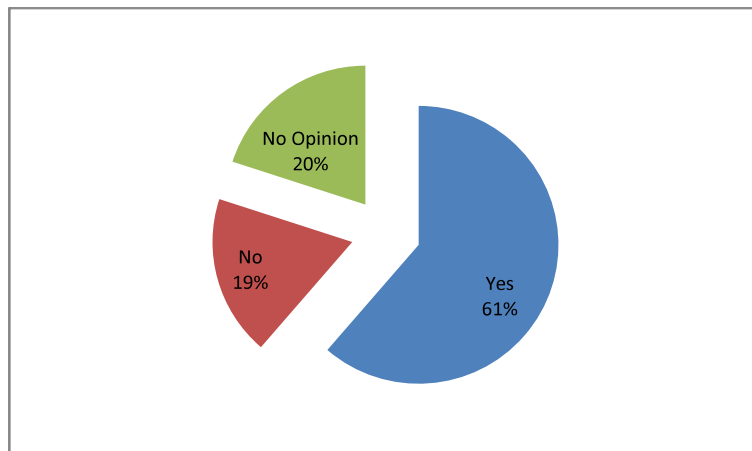
It is important to understand the general acceptance of the PPP model in an educated and influential population. If the model continues to be applied in Ontario's health care system, health care professions will interact at some point in their career with a PPP. Gauging the receptiveness to the model is important as it can affect the likelihood that PPP will continue to be used in Ontario.

Figure XIV: What is your general impression of the use of PPPs in Canada? (N = 225)



Responses to the question indicate that respondents are open to the use of a PPP model in some or most sectors and 26% felt that the model should always be explored as an option. Twelve percent indicated that they have no opinion which may indicate a lack on knowledge surrounding the model or formed opinions.

Figure XV: Do you feel that the PPP model is appropriate for designing and building hospitals as well as the provision of non-clinical services? (N = 225)



Responds for the “general use of PPPs in Canada” was compared to whether respondents felt that they were appropriate for designing and building hospitals and the provision of non-clinical services. Categories were combined for “should always be used” and “should always be explore” based on response size. “Should never be used” and “should only be used in some sectors” were also combined. The responses on the two questions were found to be significantly related,  $X^2(9,N= 225)= 91.74, p<0.000$ .

**Table X: Cross-tabulation of responses to Questions 5 and Questions 6**

		No			Always Explore	
		Opinion	Never/Some	Most	/Use	Total
No	Count	1	33	2	6	42
	Expected Count	4.9	16.6	9.3	11.2	42
	%	2.40%	78.60%	4.80%	14.30%	100.00%
No opinion	Count	19	12	5	7	43
	Expected Count	5	17	9.6	11.5	43
	%	44.20%	27.90%	11.60%	16.30%	100.00%
Yes	Count	5	43	42	47	137
	Expected Count	15.8	54.2	30.4	36.5	137
	%	3.60%	31.40%	30.70%	34.30%	100.00%

For the present study, we were interested in respondents who indicated answered that they were and were not receptive to the model.

**Table XI: Comparison cross-tabulation for respondents who answered, “Yes” and “No” to Question 6**

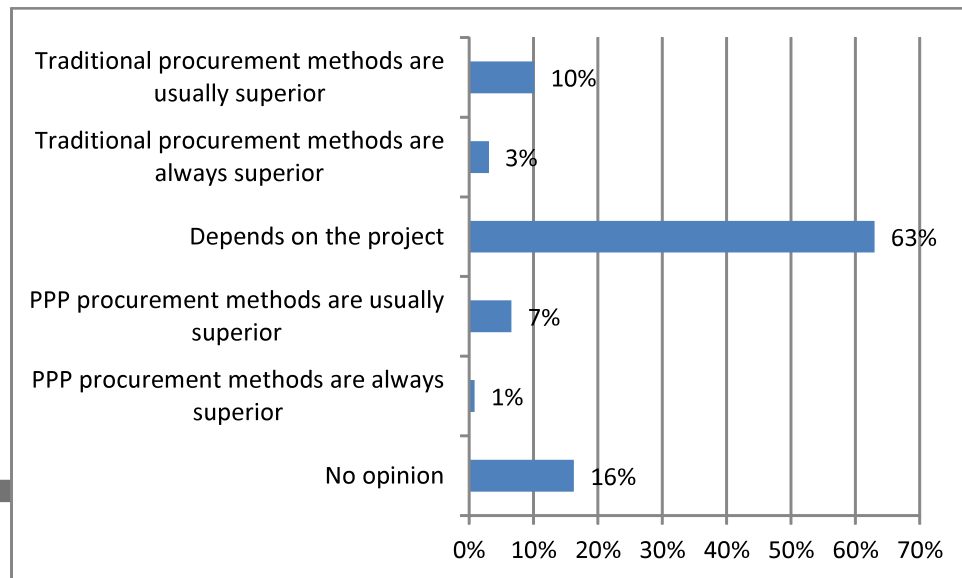
		No	Never/Some	Most	Always Explore /Use	Total
No	Count	1	33	2	6	42
	Expected					
	Count	1.4	17.8	10.3	12.4	42
	% within Q6	2.40%	78.60%	4.80%	14.30%	100.00%
Yes	Count	5	43	42	47	137
	Expected					
	Count	4.6	58.2	33.7	40.6	137
	% within Q6	3.60%	31.40%	30.70%	34.30%	100.00%

**Table XII: Response to survey regarding whether or not PPPs should be pursued**

		Never/Some	Always Explore/Use
No	Count	33	6
	Expected		
	Count	23.1	15.9
	% within Q6	84.60%	15.40%
Yes	Count	43	47
	Expected		
	Count	53.3	36.7
	% within Q6	47.80%	52.20%

The responses on the two questions were found to be significantly related,  $X^2(2, N=225) = 15.89, p < 0.000$ .

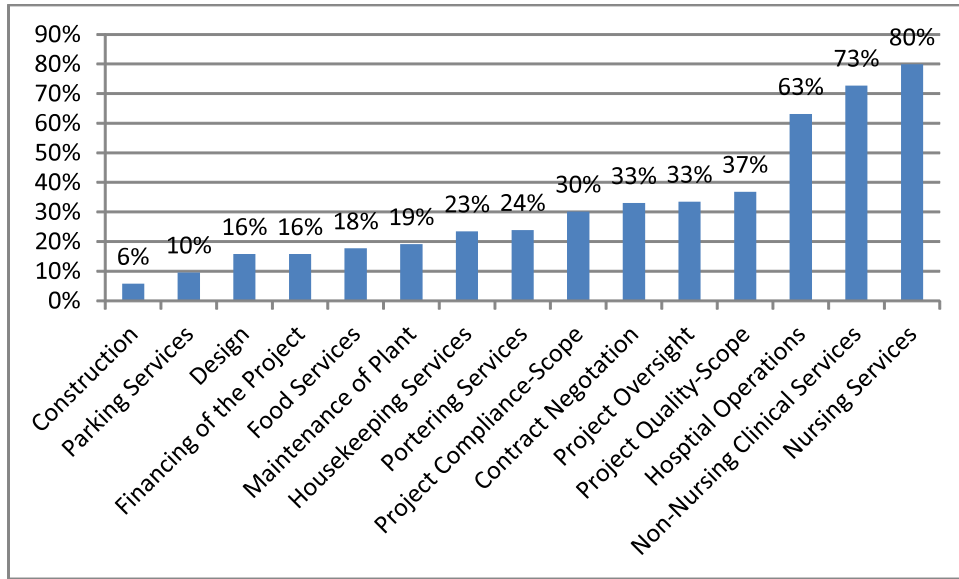
**Figure XVI: Do you feel that the design, construction and operation of public infrastructure projects are better executed under traditional procurement methods or PPPs? (N = 227)**



The response distribution was similar to our hypothesized frequencies and supports an observation that respondents are generally open to the ideal of the use of PPPs.

Respondents were asked which aspects of a hospital PPP should not be transferred to the private sector and overwhelmingly, a preference for hospital operations and clinical services to remain with the public was indicated.

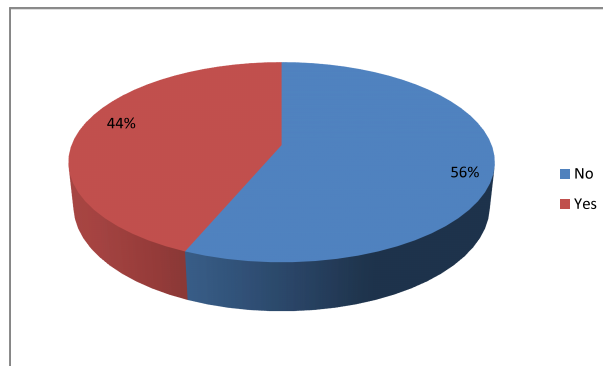
**Figure XVII: If a PPP were employed for a hospital build in Canada, which of the following do you feel should NOT be transferred to the private sector? Check all that apply (N = 209)**



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To access the questions in the following section, respondents were required to self-identify that they possessed a working knowledge of PPPs. The majority of respondents indicated that they did not (56%). This was surprising and speaks to the need of further education to the general public as to the model and the implications to the health care sector.

**Figure XVIII: Do you have a working knowledge of PPPs? (N = 229)**



Respondents indicated that they felt that the Canadian marketplace was somewhat competitive with respect to PPP tendering.

#### *Risk Transfer Factor Analysis*

Based on our interview data, it became evident that there were going to be challenges surrounding risk transfer and the acceptance of the model. An exploratory factor analysis was used to determine whether or not risk transfer grouped to underlying constructs.

Respondents were asked “Which of the following need to be in place for risks to be adequately transferred from the public sector to the private sector?”. A likert scale was employed. A one denoted that it was “Most Important” and five denoted “Least Important”. A zero option, “N/A” was available indicated that the respondent thought that it was not a relevant issue with respect to risk transfer and zero scores were discarded in the data analysis (Li, Akintoye, Edwards & Hardcastle, 2005).

**Table XIII: Survey respondents' ranking of factors that must be in place for risk transfer to occur in PPP model**

Factor	Mean	Rank	SD
Good Governance Structure	1.40	1	0.614
Comprehensive Contracts	1.66	2	0.76
Review of Construction Quality	1.66	3	0.668
Clarification of Who Maintains Property Rights	1.77	4	0.786
Review of Design Quality	1.79	5	0.883
Similar Goals and Values of Public and Private Sectors	2.06	6	1.051
Understanding of Private Sector Motivation	2.21	7	1.141
Profit Sharing Between Public and Private Sector	2.38	8	1.208
Understanding of Public Sector Motivation	2.47	9	1.12
Supportive Political Environment	2.51	10	1.14
Simplicity of Scope	2.87	11	1.096
Multiple Firms Involved	3.34	12	1.185
Similar Organization Structures of Firms	3.55	13	1.119

A correlation matrix of all 13 risk transfer variables indicated that all variables should be included in the factor analysis. The value of the test statistic for sphericity was significant (Bartlett's Test of Sphericity = 181.52,  $p < 0.001$ ) and the KMO statistic is 0.571 and is just adequate (Kaiser (1974, cited in Dziuban and Shirkey 1974: 359).

The initial rotation matrix results are show in Table IV and indicate that there are four factors with an Eigenvalue greater than 1.0 but based on the scree plot, three factors appear to be appropriate for this analysis.

Table IV. Initial and rotated factor matrix of risk transfer variables



**Table XIV: Initial and rotated factor matrix of risk transfer variables**

Component	Extraction Sums of Squared					
	Initial Eigenvalues			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.746	28.816	28.816	3.746	28.816	28.816
2	1.865	14.343	43.16	1.865	14.343	43.16
3	1.46	11.234	54.394	1.46	11.234	54.394
4	1.076	8.276	62.67	1.076	8.276	62.67
5	0.899	6.915	69.585			
6	0.874	6.724	76.309			
7	0.75	5.772	82.082			
8	0.616	4.736	86.817			
9	0.543	4.18	90.998			
10	0.406	3.126	94.124			
11	0.371	2.853	96.976			
12	0.248	1.909	98.886			
13	0.145	1.114	100			

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Extraction Method: Principal Component Analysis.

**Table XV: Initial and rotated factor matrix of risk transfer variables based on scree plot**

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	3.746	28.816	28.816	1.739	13.375	13.375	2.297	17.67
2	1.865	14.343	43.16	2.571	19.778	33.153	1.789	13.759	31.43
3	1.46	11.234	54.394	1.213	9.334	42.487	1.437	11.057	42.487
4	1.076	8.276	62.67						
5	0.899	6.915	69.585						
6	0.874	6.724	76.309						
7	0.75	5.772	82.082						
8	0.616	4.736	86.817						
9	0.543	4.18	90.998						
10	0.406	3.126	94.124						
11	0.371	2.853	96.976						
12	0.248	1.909	98.886						
13	0.145	1.114	100						

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Extraction Method: Maximum Likelihood.

Three of the factors accounted for 42.49 per cent of the total variance and the remaining ten accounted for 57.51 per cent of the total variance. A model with three factors may be enough to represent the data. Table VI outlines the factor loadings. A cut off of 0.3 was used (<http://www.ats.ucla.edu/stat/spss/output/factor1.htm>).

- Factor 1- Controlling mechanisms
- Factor 2- Goals and Alignment
- Factor 3-Complexity/Governance

**Table XVI: Factor grouping of risk transfer variables after rotated factor matrix (loading)**

Rotated Factor Matrix(a)	Factor		
	1	2	3
Similar Organization Structures of Firms		0.336	0.478
Good Governance Structure	0.453	0.343	
Similar Goals and Values of Public and Private Sectors		0.678	
Comprehensive Contracts	0.596		
Profit Sharing Between Public and Private Sector	0.439		
Clarification of Who Maintains Property Rights	0.458		
Understanding of Public Sector Motivation		0.609	
Understanding of Private Sector Motivation	0.607	0.563	
Supportive Political Environment		0.545	
Simplicity of Scope			
Multiple Firms Involved			0.986
Review of Design Quality	0.729		
Review of Construction Quality	0.583		

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Figure XIX: Please rate the competitiveness of the Canadian marketplace in terms of comprehensive PPP tendering for hospital infrastructure projects. (N = 73)

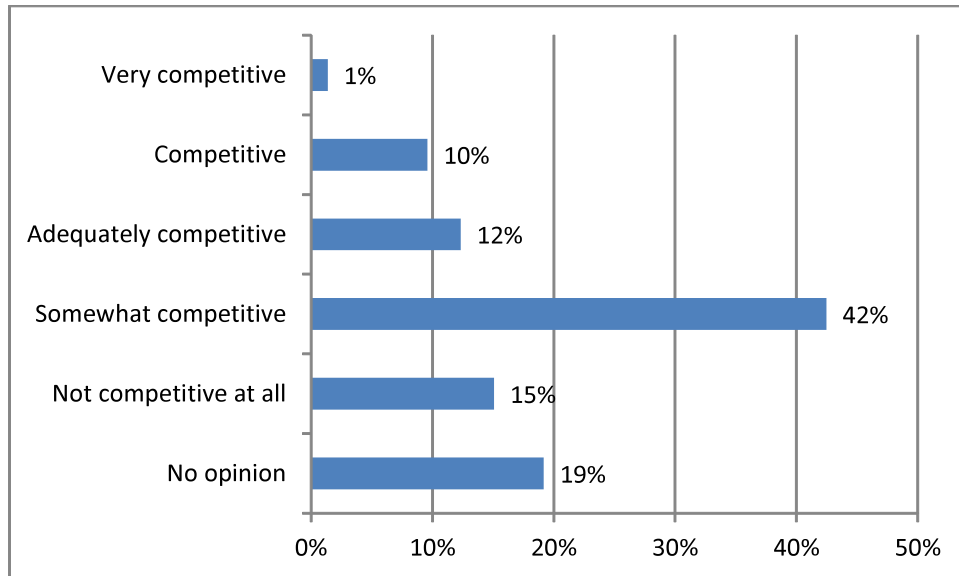


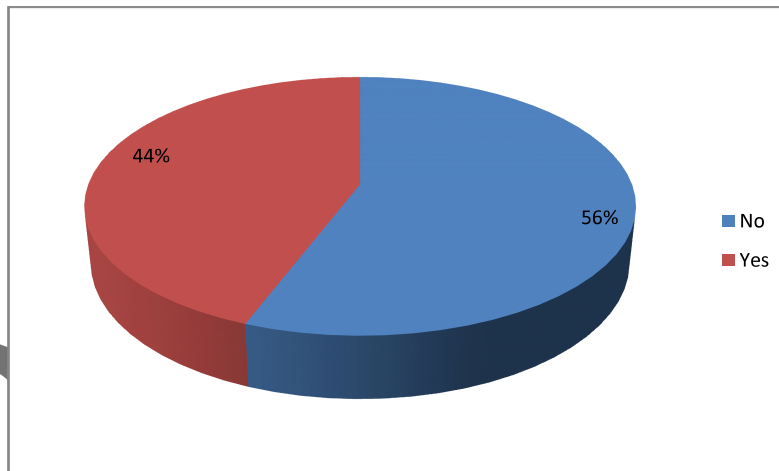
Table XVII: What improvements do you feel need to be made in Canada to improve the decision making process, tendering and execution of PPPs?

	DRAFT						Total Importance
	All Phases	Decision	Tendering	Execution	N/A	Don't Know	
Private Partner Accountability (N=67)	69%	7%	6%	7%	6%	4%	90%
Knowledge of PPPs (N=66)	64%	20%	0%	6%	5%	6%	89%
Public Partner Accountability (N=64)	72%	8%	5%	5%	5%	6%	89%
Value for Money Analysis (N=66)	55%	18%	14%	2%	5%	8%	88%
Labour Union Relationships (N=65)	51%	17%	3%	17%	6%	6%	88%
Third Party Audits (construction) (N=65)	45%	9%	8%	26%	5%	8%	88%
Contract Compliance (N=66)	61%	9%	5%	12%	5%	9%	86%
General Process Guidelines (N=66)	68%	9%	5%	5%	5%	9%	86%
Third Party Audits (financial) (N=65)	54%	12%	3%	17%	5%	9%	86%
Flexibility (N=64)	53%	16%	6%	6%	6%	13%	81%
Public Sector Comparator Analysis (N=64)	42%	23%	8%	5%	5%	17%	78%
Jurisdiction-Wide Evaluation Criteria (N=66)	56%	8%	6%	5%	5%	21%	74%
Comprehensive Auditor General Reports (N=65)	51%	9%	5%	9%	9%	17%	74%

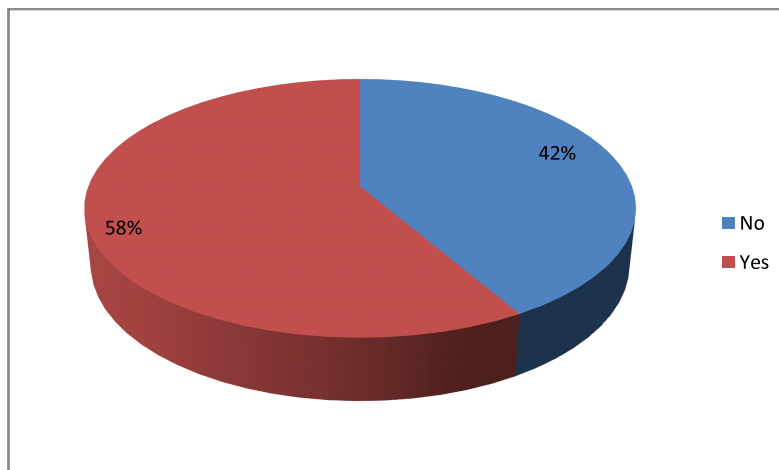
In summary, respondents felt that improvements needed to be “across the board”.

To access the next set of questions, participants has to self identify that they were familiar with Brampton Civic Hospital. Surprisingly, more people were not familiar with the hospital site.

**Figure XX: Are you familiar with Brampton Civic Hospital? (N = 199)**



**Figure XXI: Do you feel that the PPP arrangement used to design, build, finance and maintain Brampton Civic Hospital resulted in issues with the delivery of care? (N = 84)**



It is evident that the majority of respondents felt that the PPP model was responsible for issues relating to delivery of care. Respondents were then asked to indicate which part of the PPP they felt that there were issues with.

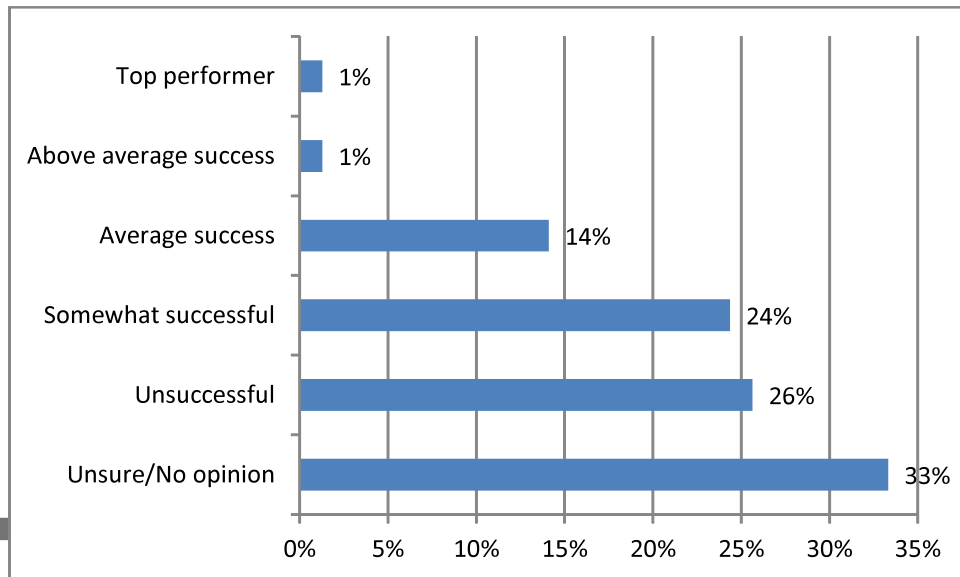
**Table XVIII: Which part of the Brampton Civic Hospital PPP did you feel that there were problems with? Check all that apply. (N = 41)**

Cost Overruns	54%
Public Relations	44%
Community Support	44%
VFM Analysis	41%
Quality Clinical Services	41%
Interior Construction	24%
Contracts	24%
Quality Non-Clinical Services	24%
Interior Design	22%
PSC Analysis	17%
Exterior Design	5%
Exterior Construction	5%
Timelines of Hospital Opening	2%
Not Meeting Service Demands	2%
Capital Equipment (Infection Control)	2%
Mismanagement of Personnel	2%

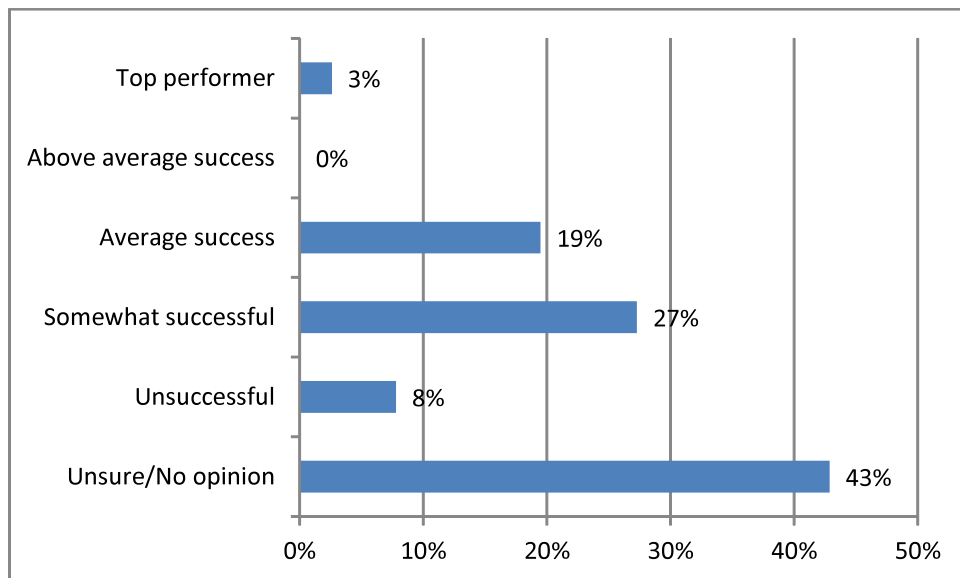
Supervision was used as tool to address public concerns that there problems at the hospital. There is no publically available data on the use of supervisors and the resulting

improvements. To address this gap, we asked the respondents to rate the success of the BCH PPP prior to and post supervision.

**Figure XXII: How would you rate the success of the Brampton Civic Hospital PPP prior to undergoing supervision? (N = 78)**



**Figure XXIII: How would you rate the success of Brampton Civic Hospital one to two years after supervision? (N=77)**



The majority of respondents indicated that they were unsure or had no opinion. This is surprising considering the knowledge base of the respondents.

To obtain a better understand of the perceptions of the quality of care at the hospital, a rating of the quality of care compared to other Ontario community hospitals was obtained.

**Figure XXIV: How do you feel the quality of health care service delivery at Brampton Civic Hospital compares to other community hospitals in Ontario? (N=78)**

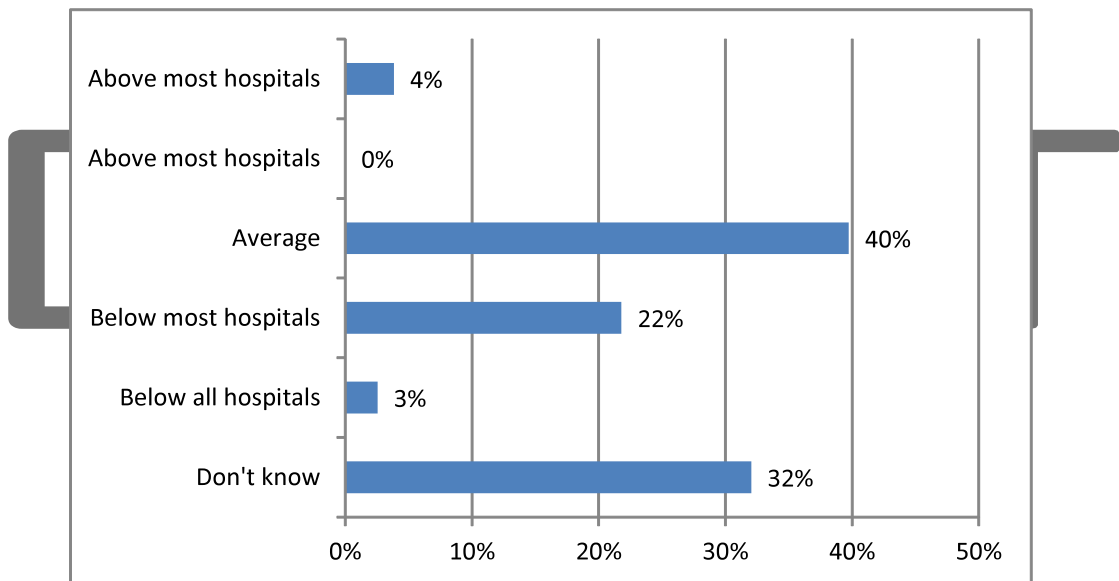
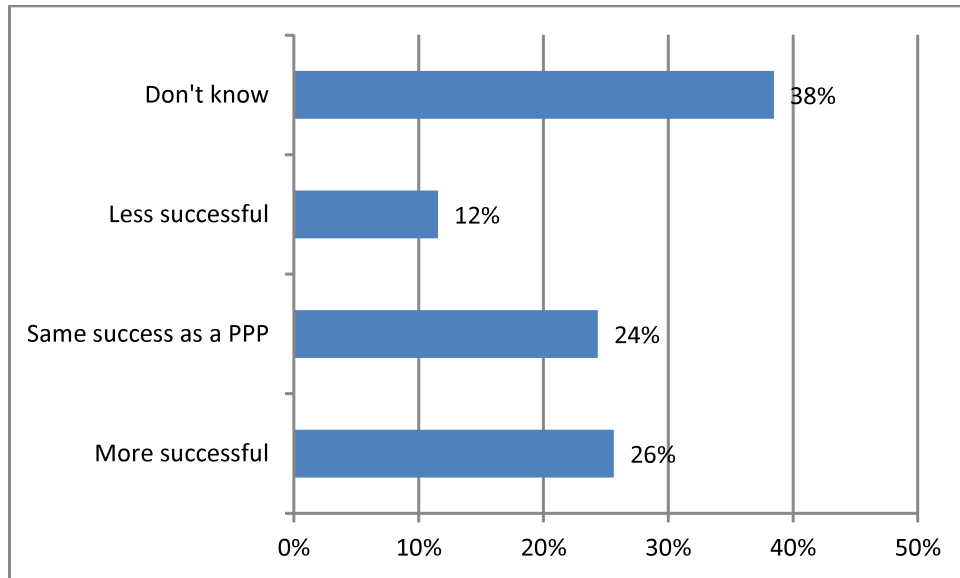




Figure XXV: How successful do you feel the Brampton Civic Hospital project would have been if it was executed using a traditional procurement method? (N = 78)



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## Sample of Survey

### 1. Introduction

Given the recent interest in public private partnerships (PPPs) as a mechanism to meet public infrastructure needs, the present study intends to better understand best practices with respect to PPPs in the Canadian health sector and how governments can effectively capture value in the execution of capital projects pursued under this model.

For the present study, PPPs are defined as an arrangement that leverages the strengths of both the public and private sectors to deliver capital projects. The survey to follow focuses on projects where the private sector is responsible for the design and construction of the structure as well as the provision of non-clinical services over a contracted period of \_\_\_\_\_ time.

The present study will be presented at an Organisation for Economic Co-operation and Development conference in Paris in March 2011. We would also be happy to share the results of our research upon its completion.

Responses from the survey will be aggregated and will be kept anonymous. If you have any questions regarding this study, please email [PPPStudy@gmail.com](mailto:PPPStudy@gmail.com).

Thank you for your participation.

#### 1. Please indicate which of the following options best describes the sector that you work in.

- Agriculture/Forestry/Fishing
- Banking and Finance
- Biotech/Pharmaceutical
- Communications
- Construction
- Education

- Energy Generation and Supply
- Government and Civil Service
- Health Care
- Industry
- Mineral Resources and Mining
- Multi-Sector/Cross Cutting
- Not-For-Profit
- Social Infrastructure and Services
- Tourism
- Trade Policy and Regulation
- Transport and Storage
- Water Supply and Sanitation

**DRAFT**

Other (please specify)

**2. Please indicate which of the following options best describes your role.**

- Administration
- Clinical/Medical
- Consulting
- Education
- Finance
- Human Resources

- IT
- Legal
- Marketing
- Operations
- Research
- Sales

Other (please specify)

**3. Which of the following best describes your position within your organization?**

- Entry Level
- Experienced Non-Manager
- Manager
- Senior Manager or Director
- Vice President
- Senior Vice President
- President/CEO/CFO/COO
- Other (please specify)

**4. How many years have you worked in the health care sector? If you have never worked in the health care sector, please enter N/A into the text box.**

DRAFT

**5. What is your general impression of the use of PPPs in Canada?**

- No opinion
- Should never be used
- Should only be used/explored in some sectors
- Should be used/explored for most sectors
- Should always be explored as an option in any sector
- Should always be used

**6. Do you feel that the PPP model is appropriate for designing and building hospitals as well as the provision of non-clinical services?**

- Yes
  - No
  - No opinion
- DRAFT**

If you responded "No", why do you feel that they are not appropriate?



**7. Do you feel that the design, construction and operation of public infrastructure projects is better executed under traditional procurement methods or PPPs?**

- No opinion
- Traditional procurement methods are always superior
- Traditional procurement methods are usually superior
- Depends on the project

- PPP procurement methods are usually superior
- PPP procurement methods are always superior

**8. If a PPP was employed for a hospital build in Canada, which of the following do you feel should NOT be transferred to the private sector? Check all that apply.**

- Nursing Services
- Portering Services
- Financing of the project
- Operations of the hospital
- Housekeeping Services
- Project Oversight
- Clinical Services (excluding Nursing)
- Maintenance (Plant) of the hospital
- Project Compliance- Scope
- Parking Services
- Food Services
- Contract Negotiations
- Project Compliance- Quality
- Construction
- Design

Other (please specify)

**DRAFT**

**9. Do you have a working knowledge of PPPs?**

- Yes
- No

**2. Public Private Partnerships**

**1. Please rate the competitiveness of the Canadian marketplace in terms of comprehensive PPP tendering for hospital infrastructure projects?**

- No opinion
- Not competitive at all
- Somewhat competitive
- Adequately competitive
- Competitive
- Very competitive

**DRAFT**

**2. Which of the following risks do you feel can be adequately transferred to the private sector by means of PPPs?**

**Check all that apply.**

- Environmental concerns
- Quality of services delivered
- Increased transaction costs
- Cost overruns or delays due to materials
- Increase in interest rates
- Building Code compliance

- Underestimates of total project cost
- No opinion
- Cost overruns or delays due to construction
- Cost overruns or delays due to labour
- Cost overruns or delays due to design
- Contract compliance

Other (please specify)

3. Which of the following need to be in place for risks to be adequately transferred from the public sector to the private sector?

	DRAFT					
	Most Important	2	3	4	Least Important	N/A
Supportive political environment						
Good governance structure						
Simplicity of the scope of project						
Multiple firms involved						
Understanding public sector motivation (e.g. elections)						
Profit sharing						



	Most Important	2	3	4	Least Important	N/A
between the public and private sector						
Clarification of who maintains the property rights						
Review of design quality						
Similar goals and values of public and private sector						
Comprehensive Contracts						
Understanding private sector motivation (e.g. opportunity costs)						
Similar organizational structure of firms involved						
Review of construction quality						
Other (please specify)						

**4. What improvements do you feel need to be made in Canada to improve the decision making process, tendering and execution of PPPs?**

	Decision	Tendering	Execution	All Phases	Don't Know	N/A
Third party audits						

	Decision	Tendering	Execution	All Phases	Don't Know	N/A
(construction)						
Value for Money analysis						
Flexibility						
Public Sector Comparator analysis						
General process guidelines						
Third party audits (financial)						
Contract compliance						
Jurisdiction-wide evaluation criteria						
Private partner accountability						
Labour union relationships						
Comprehensive Auditor General Reports						
Knowledge of PPPs						
Public partner accountability						
Other (please specify)						

**5. How would you rank the quality of health care delivery in hospitals built using a PPP model?**

- No opinion
- Worse than traditionally procured hospitals
- Somewhat worse than traditionally procured hospitals
- Same as traditionally procured hospitals
- Somewhat better than traditionally procured hospitals
- Better than traditionally procured hospitals

**6. Are you familiar with Brampton Civic Hospital?**

Yes

No

**7. Do you feel that the PPP arrangement used to design, build, finance and maintain Brampton Civic Hospital resulted in issues with delivery of care?**

Yes

No

**8. Which part of the Brampton Civic Hospital PPP did you feel that there were problems with? Check all that apply.**

- Community support
- Construction of the exterior
- Construction of the interior
- Contracts

**DRAFT**

- Cost overruns
- Design of the exterior
- Design of the interior
- No problems
- Public Relations
- Public Sector Comparator analysis
- Quality of clinical services
- Quality of non-clinical services
- Value for Money analysis

Other (please specify)

**DRAFT**

**2. How would you rate the success of the Brampton Civic Hospital PPP prior to undergoing supervision?**

- Unsure/No opinion
- Unsuccessful
- Somewhat successful
- Average success
- Above average success
- Top performer

**3. How would you rate the success of Brampton Civic Hospital one to two years after supervision?**

- Unsure/No opinion
- Unsuccessful
- Somewhat successful
- Average success
- Above average success
- Top performer

**4. What specific issues do you believe led to Brampton Civic Hospital being placed under supervision in 2008?**

**Check all that apply.**

- Not meeting service volume obligations
- Increase in Surgical Wait Times
- Clinical service quality
- Problems with administration
- Problems with nursing staff
- Exceeded budget
- General performance issues
- Don't know
- No opinion
- Increase in Emergency Department Wait Times
- Problems with non-clinical services
- Increased mortality

**DRAFT**

Problems with physicians

Other (please specify)

**5. How do you feel the quality of health care service delivery at Brampton Civic Hospital compares to other community hospitals in Ontario?**

- Don't know
- Below all hospitals
- Below most hospitals
- Average
- Above most hospitals
- Above all hospitals

**6. How successful do you feel the Brampton Civic Hospital project would have been if it was executed using traditional procurement methods?**

- Don't know
- Less successful
- Same success as a PPP
- More successful

Thank you for participating in our survey. If you are interested in the results please email [PPPStudy@gmail.com](mailto:PPPStudy@gmail.com) and we would be happy to provide you with a summary once the study is complete.

## Appendix II – Select News Coverage of Brampton Civic Hospital

### Summary of News and Media Coverage of Brampton Civic Hospital

Figure XXVI: Summary of News Coverage RE: Brampton Civic Hospital in January - December 2007 (Source: Google News)

Jan-Dec, 2007 [Search other dates](#)

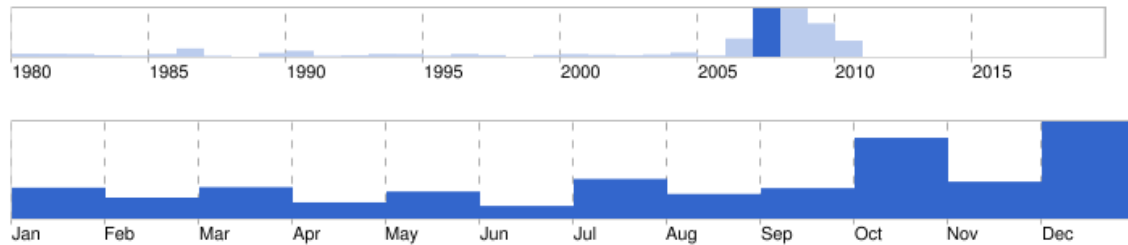
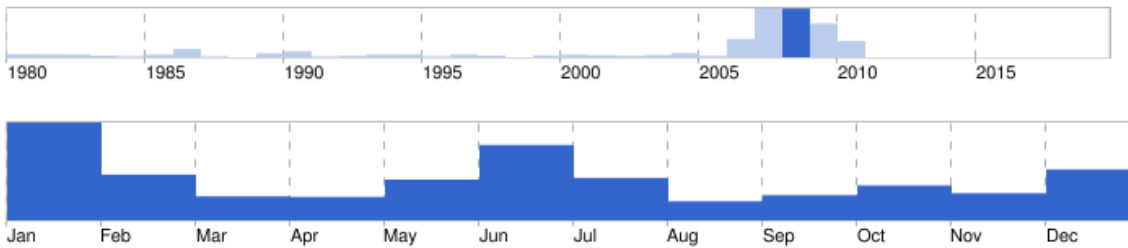


Figure XXVII: Summary of News Coverage RE: Brampton Civic Hospital in January - December 2008 (Source: Google News)

Jan-Dec, 2008 [Search other dates](#)



## Select News Articles

December 6, 2007 (Date accessed: August 10, 2010)

<http://www.cbc.ca/health/story/2007/12/06/brampton-hospital.html>

- Anger in the community grows after the death of Harnek Sidhu at Brampton Civic Hospital

December 6, 2007 (Date accessed: August 10, 2010)

<http://www.thebramptonnews.com/articles/2899/1/Brampton-Civic-Hospital-Community-Meeting/Page1.html>

- Staff the BCH Emergency Department to accommodate 90,000 visits per year as per Ministry-approved research – this is 13,500 more than the actual visits at Peel Memorial hospital
- Since opening the hospital as seen more than 20% increase in patient volumes over and above the expected increase
- WOHC Corporate Strategic Plan states several different mechanism through which it hopes to improve the customer experience (will be relevant to brand)
- Brampton Civic Hospital was built to accommodate 608 beds. We have been funded to open 479 beds in 07/08; the remaining beds will be phased in by fiscal year 2011/2012 as patient volumes increase. Inpatient bed volumes change every day and throughout the day. To date we have not yet filled all 479 beds, but are prepared should patient volumes reach this level.



December 9, 2007 (Date accessed: August 10, 2010)

[http://www.nriinternet.com/NRIhospitals/CANADA/2007/HarneK\\_Sidhu\\_died\\_AtBrampton\\_Civic\\_Hospital.htm](http://www.nriinternet.com/NRIhospitals/CANADA/2007/HarneK_Sidhu_died_AtBrampton_Civic_Hospital.htm)

- Harnek Sidhu, 52 – sent to emergency with stomach pains, took 12 hours to be assigned a bed and after 10 days he died of pancreatitis
- Lightning rod for the opposition to so-called P3 projects following a death of the local Punjabi community is blaming understaffing
- Perception that Brampton Civic Hospital was Ontario’s “first” P3
- Says that the Ontario Health Coalition won a four year battle to get access to the details of the deal
- Was the conservative government who approved the P3

December 11, 2007 (Date accessed: August 10, 2010)

<http://www.citytv.com/toronto/citynews/news/local/article/18984--ontario-to-appoint-new-supervisor-at-brampton-civic-hospital>

- Premier rejects claims by the opposition that the hospital’s private sector involvement is somehow to blame for problems delivering health care

January 25, 2008 (Date accessed: August 10, 2010)

<http://www.thestar.com/article/297350>

- Top executives resign in wake of turmoil at Brampton Civic Hospital

- Chief Executive Officer Robert Richards, Chief Nursing Office Brenda Elsbury and Executive VP Finance Vicki Truman resigned
- Resignations were part of an overall shakeup at the top levels of the hospitals administration

December 11, 2007 (Date accessed: August 10, 2010)

<http://www.thestar.com/news/article/284324>

- BCH appoints supervisor to new hospital
- BCH opened October 28<sup>th</sup>, 2007
- Second patient death was Amarjit Narwal, 42 who died after having a stroke

July 3, 2009 (Date accessed: August 10, 2010)

[http://www.healthzone.ca/health/news/gta/article/660199-girl-s-death-ignites-](http://www.healthzone.ca/health/news/gta/article/660199-girl-s-death-ignites-hospital-debate)

[hospital-debate](http://www.healthzone.ca/health/news/gta/article/660199-girl-s-death-ignites-hospital-debate)

- Article from 2009, July
- Talks about the on-going mistrust in the community of the Brampton Civic Hospital
- The wait times, staff attitude and lingering mistrust are some of the reasons why people avoid Brampton Civic Hospital
- Chief of Emergency Medicine, Dr. Naveed Mohammad points out in the article that the hospital's wait times are better than Trillium and Credit Valley Hospitals

December 22, 2007 (Date accessed: August 11, 2010)

<http://www.thestar.com/printArticle/287524>

- Gives the perspectives of the press, a doctor
- Chief of Emergency Medicine states in the article that neither of the two deaths/cases that became lightning rods for the media and community involved medical error in the emergency room
- States that clinicians didn't anticipate the problems that would come with moving to a new hospital from mastering the use of the new computer system to finding the stairs
- States that the new facility drove 20 per cent more emergency room traffic than predicted

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- *“ Some of the groundwork for community discontent was laid down by the Ontario Health Coalition, which began calling members of the Punjabi press in September to organize a series of town hall meetings on the topic of health care in Brampton.*

*The Ontario Health Coalition is opposed to hospitals built on the Brampton Civic Hospital model – so-called P3s – which involve partnerships between the private and public sectors.*

*The coalition represents, among other community groups, the Council of Canadians and several powerful unions, including health-care unions. Executive*

*director Natalie Mehra says that under P3 models, hospital profits are siphoned off to the private sector, at the expense of health care.*

*The town-hall meetings, which took place a month before the hospital opened, were designed to bring attention to the issue in time for the provincial election in October, Mehra said.*

*"We wanted to push the province to make some promises leading into the election and coming out of the election," she said.*

*It was through the Ontario Health Coalition that journalists like Parvasi Weekly publisher Rajinder Saini learned that the newly opened hospital would have fewer beds than originally thought and that the old Peel Memorial Hospital would be closed once the new hospital opened.*

*"Until then, I don't believe that anybody in the community knew that if we are getting this new hospital, they are snatching away Peel Memorial hospital, too," says Saini. "That's how it started simmering around, you know. People started complaining that, 'Why are they closing down Peel Memorial?' "*

- Article makes an interesting point in that it suggests that much of the push for the opposition to the Brampton Civic Hospital was driven by the Ontario Health Coalition which represents amongst other groups health-care worker unions

## Supervisor to probe problems at hospital

Prithi Yelaja Staff Reporter

<http://www.thestar.com/article/290180>

Amid reports that a patient had the wrong leg operated on at Brampton Civic Hospital, Health Minister George Smitherman has named the supervisor who will look into problems at the new facility.

"People in the community should expect more answers to the questions raised ... What we see here is evidence of the need to do better," Smitherman told a press conference at the hospital yesterday.

Ken White, former CEO at Trillium Health Centre in Mississauga, will spend the next six to nine months, perhaps longer, coming up with an action plan to improve communication between the hospital and the community, ensure proper staffing and reduce wait times in the emergency ward.

Smitherman took the rare step of appointing a supervisor to restore public confidence in Brampton Civic after the deaths of Harnek Sidhu, 52, of pancreatitis and Amarjit Narwal, 42, of a stroke, sparked a huge community protest in early December.

Then, on Christmas Day, 72-year-old Amar Kaur Brar complained doctors cut open her right leg by mistake when she went to hospital for surgery on her fractured left leg.

Although he had been an investigator at Brampton Civic for about a year, helping it to ramp up to its opening on Oct. 28, White said he was "not at all familiar" with concerns raised by the community about a shortage of staff, unduly long waits in emergency and a lack of beds.

"It's very sad there's all kinds of these misadventures in health care happening across Canada," White told reporters in an interview after the press conference.

Smitherman blamed "mischief makers" and alluded to persistent negative media reports about problems at the hospital since it opened as being a factor in attracting staff to work at the centre.

Some of those reports have been "pretty far off the mark," he said.

Brampton Civic, which replaced Peel Memorial Hospital, "overnight gained 100 beds, which is unheard of in health care" today, said Smitherman. However, he acknowledged staffing challenges.

## Appendix III – Public Private Partnerships

Variations of PPPs have been in existence since the 1940s but it was only in the early 1990's that they were popularized in the United Kingdom with the advent of the Private Financing Initiative or PFI (Raymond James Paper). The United Kingdom continues to be the world's single largest national market for PPPs with over \$18 billion in infrastructure investments in 2006. By comparison, all of continental Europe spent about \$21 billion on PPPs in 2006, followed by \$12 billion of PPP investments in Asia, and \$9 billion in the United States (Raymond James Paper).

The use of PPPs in the public sector is still relatively immature and the United Kingdom (UK) represents one of the largest users of PPP arrangements known as Private Financing Initiatives (PFI). Some countries also informally state that they aim to maintain total public investment in PPPs at 15%, one for the main reasons cited for this control is that the process involved to create a PPP in such a way as to create value is cumbersome (OECD 2008 ref in Burger & Hawkeworth 2010). In a recent study by Burger and Hawkeworth for the OECD, they surveyed both OECD member and non-member countries to explore issues surrounding the attainment of value for money in PPPs. They found that countries such as Korea, Australia, Germany, South Africa, as well as France, Spain and Portugal are increasingly using PPPs as a means for financing infrastructure projects (Burger & Hawkesworth, 2010).

## Purpose of Public Private Partnerships

The goal of a PPP arrangement is to leverage the strengths of both the public and private sectors to deliver capital projects efficiently and cost-effectively for the public. In general, “partnerships offer the promise of greatest success when the strengths of more than one player are required” (Rosenau, 1999). The private sector is considered to be better at performing economic tasks, innovating and replicating successful experiments, adapting to change, abandoning unsuccessful or obsolete activities, and performing complex or technical tasks (Rosenau, 1999). The public sector excels at committing to individuals in a compassionate manner, and performs well in areas where clients require trust, discretion or require personalized services (Rosenau, 1999).

PPPs are advantageous in that they can serve as a financial model for the public sector whereby private sector capital is accessed in a way that enhances the possibility of success for both the private and public sectors (Hodge and Greve, 2007; Flinders, 2005). PPPs as organizational and financial arrangements are intended to leverage the skills and benefits of both types of organizations. Risk sharing is the greatest benefit when combining the strengths both sectors (Hodge & Greve, 2007).

There is an alternative school of thought that PPPs are more of a governance tool or accounting used by the public sector to facilitate ‘off-balance sheet’ financing (Teisman and Klijn 2001, 2002 in Hodge and Greve, 2007). One body of literature suggests that PPP’s are intended to obscure other strategies and purposes such as privatization and therefore are dubbed as a “language game” (Hodge & Greve, 2007). By repackaging privatization as a partnership, the idea becomes more palatable to the

public. PPPs also allow private firms to gain market share of public services (Hodge and Greve, 2007).

This body of literature suggests that language games in the PPP arena can lead to various interpretations of PPP arrangements in different parts of the world. For example, in the UK PPPs are known as PFI arrangements and are spoken of as efforts of privatization of certain areas of public policy. Whereas in Australia such PPP are argued to have nothing to do with privatization and are kept separate from policy. The result is that the same PPP phenomenon is being framed in two opposite ways for local political gain (Hodge & Greve, 2007). While this study recognizes the existence of such debates, the analysis herein focuses on evaluating the value created, gained and captured in the use of alternative financing arrangements in the public sector regardless of the political framing.

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**Table XIX: Various definitions of PPP**

Source	Definition
HM Treasury	An arrangement between two or more entities that enables them to work cooperatively towards shared or compatible objectives and in which there is some degree of shared authority and responsibility, joint investment of resources, shared risk taking, and mutual benefit.
The World Bank	The term “public-private partnerships” has taken on a very broad meaning. The key elements, however, are the existence of a “partnership” style approach to the provision of infrastructure as opposed to an arm’s-length “supplier” relationship...Either each party takes responsibilities for an element of the total enterprise and they work together, or both parties take joint responsibility for each element...A PPP involves a sharing of risk, responsibility, and reward, and it is undertaken in those circumstances when there is a value-for-money benefit to the taxpayers.
European Commission	A partnership is an arrangement between two or more parties who have agreed to work cooperatively toward shared and/or compatible objectives and in which there is shared authority and responsibility; joint investment of resources; shared liability or risk-taking; and ideally mutual benefits.
Canadian Council on PPPs	PPP is a cooperative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks, and rewards.

Source: Towards a comprehensive understanding of PPP, Kwak/Chih/Ibbs, California Management Review, Vol. 51 No. 2, Winter

## Types of PPP Arrangements

According to the Canadian Council on Public Private Partnerships, in general, there are three basic models that PPPs follow: privatization, concession and operation and maintenance (Canadian Case for Hospital PPP Projects, 2003). There are several types of PPP arrangements that transfer varying levels of risk from the public sector to the private sector, the table below summarizes the most common forms of PPP arrangements.

Model	Arrangement	Description
Operations & Maintenance	Franchising	The public sector contracts a private company to manage the existing operations of the infrastructure
Concession	Design-Build	The private sector designs and builds infrastructure to meet public sector performance specifications, often for a fixed price, so the risk of cost overruns is transferred to the private sector (Canadian Council for PPP, 2009),

Concession	Design, Build, Finance and Operate (DBFO)	A private consortium designs the infrastructure based on specs provided by the public sector, then builds the facility, finances and operates it
Concession	Design-Build-Finance-Maintain-Operate (DBFMO)	The private sector designs, builds and finances an asset, provides hard and/or soft facility management services under a long-term agreements (Canadian Council for PPP, 2010)
Privatization	Build, own, operate (BOO)	The public sector purchases services for a set amount of time after which the ownership returns to the private sector
Concession	Build, own, operate, transfer (BOOT)	Similar to BOO but after a fixed period, ownership is transferred back to the public sector
Concession	Buy, own, lease back (BOLB)	The private sector builds the

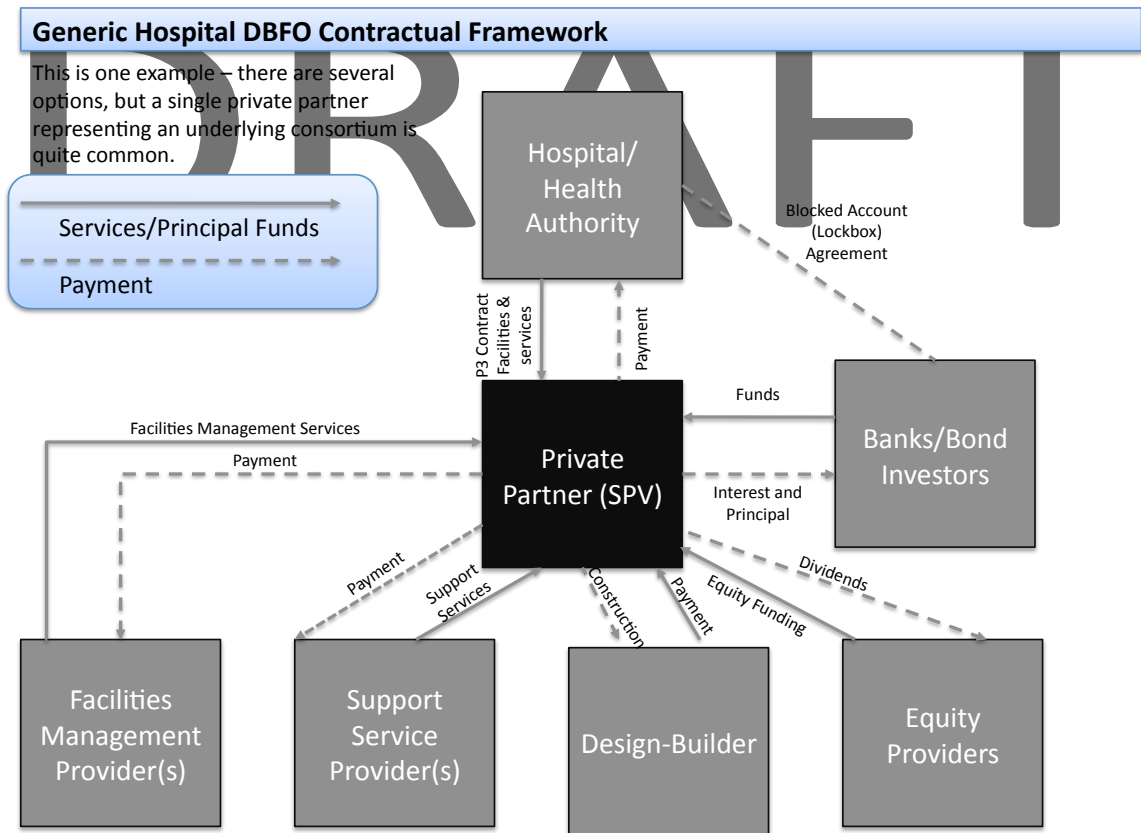
		<p>infrastructure and the facility is then leased back to and managed by the public sector.</p>
<p>Operations &amp; Maintenance</p>	<p>Operation-Maintenance (OM)</p>	<p>The private sector is responsible for all aspects of operation and maintenance. Although the private sector may not take responsibility of financing, it may manage capital investment fund and determine how the funds should be used together with the public sector.</p>
<p>Concession</p>	<p>Design-Build-Operate (DBO)</p>	<p>The private sector is responsible for design, construction, operation and maintenance of a project for a specified period prior to handing it over to the public sector</p>
<p>Concession</p>	<p>Build-Operate-Transfer (BOT)</p>	<p>The private sector is responsible for finance,</p>

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		<p>design, construction, operation and maintenance of a project. In nearly all cases, the public sector retains full ownership over the project.</p>
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Source: Towards a comprehensive understanding of PPP, Kwak/Chih/Ibbs, California Management Review, Vol. 51 No. 2, Winter 2009

**Figure XXVIII: Generic Hospital DBFO Contractual Governance Structure (Source: Canadian Coalition for Public Private Partnerships, 2009)**



Each of the various types of PPP arrangements vary in the degree of risk assumed by the private sector. The Canadian Council for Public-Private Partnerships depicts the relationship between risk and degree of private sector involvement in the figure below. The figure proposes that as the private sectors increases its accountability through increased involvement, the degree of risk taken on by the private sector increases.

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## Appendix IV - PPP Best Practices

PPPs come about as a result of the a need that the public sector cannot meet, usually based on availability of capital or a lack of expertise. When deciding to pursue a PPP arrangement, typically a value for money assessment must be conducted to determine if a PPP arrangement is best suited to the project in question.

### Value for Money

The purpose of the value for money assessment is for the public sector to compare the costs of pursuing the project with the traditional delivery model with the costs of procuring a private sector consortium for the project. If there is a decision that a public private partnership is most beneficial will put out a proposal for one of the various models. The project is then made available to the open market and consortiums, (INSERT GOOD DFN) bid for the project.

In the United Kingdom, the Private Financing Initiative (PFI) process employees a number of value-for-money analyses using Public Sector Comparators for each bid that is received (Flinders, 2005).

### Accounting Issues

An area where there is still some question as to the best practice is around the accounting options for PPPs from the government perspective. According to Burger & Hawkesworth, the accounting for PPPs may in itself create incentives for governments to prefer PPPs to traditionally procured infrastructure projects. This is mainly because

the public debt incurred to purchase the infrastructure would appear on the government books whereas in the case of a public-private partnership, the debt associated with the asset appears on the private partners books. According to Burger and Hawkesworth, the implication of this is that government expenditure in the year when the asset is acquired would be much higher in the case of traditional procurement, creating an inherent benefit of a PPP. Therefore, to pre-empt this false incentive from arising government has decided on clear criteria that determine on whose books the asset will appear.

In Canada, the Canadian Council for Public-Private Partnerships (CCPPP) have created an Accounting Task Force in order to clarify accounting standards for PPPs. In a recent position paper published by the Task Force, they articulate that with the rapid growth of PPP as a delivery method in Canada, it is “apparent that there is a lack of understanding of the relationships between PPP delivery and the public-sector budgetary process”. In Canada there is currently no consistent accounting treatment for PPPs. Lease accounting standards are often applied in the absence of a specific Canadian PPP accounting standard. The PPP accounting issue is often simplified to the question of whether the PPP transaction should be on or off the balance sheet of the government. One concern expressed by the CCPPP is that if PPP transactions are accounted for in exactly the same way as conventional government project procurement, then they will start to suffer from some of the same problems as conventional procurement (CCPPP, 2008).



## PPP Definitions, Principals, Benefits and VFM Across Jurisdictions

Private-sector partners would typically be responsible for the design costs, the construction costs, and the financing. The hospital would then repay the partners through a series of payment over the long-term. Governments enter into PPPs because they provide an opportunity to transfer risk to the private sector, allow both sectors to focus on what they do best, and accelerate investment to help bridge the gap between the need for public infrastructure and the government's financial capacity (Auditor General of Ontario, 2008).

A review of the information available from various jurisdictions with similar health system structure to the Ontario model reveals that, in general, there is a best practice method that has emerged for the decision to proceed with an infrastructure project using a public-private partnership model. The various practices in Ontario, Alberta and the UK have been summarized in the table below. The data suggested that most jurisdictions will begin their initial assessment of an infrastructure project by constructing a "base cost" analysis. The analysis involves an estimate of the construction costs associated with the infrastructure project regardless of the procurement method chosen. Following the initial base costs assessment, a public sector comparator (PSC) cost analysis is undertaken. The PSC analysis estimates the cost of proceeding with the project under the traditional government run procurement method. Best practice suggests that, ideally, these estimates should be based on data from previous projects similar in nature, size, scope and cost. Following the PSC, a value-for-money (VFM)

analysis is conducted. The VFM analysis involves estimating the total cost of the project if the private sector were to undertake the project.

Inherent to the decision making process is the recognition that in order for value to be captured through a public-private partnership, several characteristics must exist in the jurisdiction's local economy. The characteristics include the need for sufficient private sector interest in completing the project, the existence of a minimum number of qualified vendors in order to ensure competitive pricing (in the UK no less than 3 major suppliers are required) and evidence that the private sector is able to deliver on-time and on-budget.

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Jurisdiction	Purpose of PPPs	Approval Process	Approval Criteria	VFM
Infrastructure Ontario	In Alternative Financing Projects (AFPs) arrangements, the inherent private-sector efficiencies, will create a lower overall cost for taxpayers than if the government financed project directly	1. Base costs are calculated (construction costs, lifecycle costs, hard and soft facility management costs and a premium for the ASB). Unless there is a compelling reason, base costs are the same under PSC and traditional procurement. 2. VFM analysis is used as decision tool for the IO Board and is revisited many times as the project proceeds.	- Public interest is paramount - Value for money must be demonstrable - Appropriate public control and ownership must be preserved - Accountability must be maintained - All processes must be fair, transparent and efficient	VFM process cost: time - 1 € p t F c t s
Alberta Government	Encouraging innovation, collaboration, and appropriate risk sharing with the private sector,	Two phase approval process: 1. Feasibility analysis by the project sponsor – must be completed before	- Private sector has the experience to deliver - There is sufficient interest in the private sector to compete for the project (minimum of 3	Valu com and requ In ensu

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	<p>drawing on expertise and strengths of the public and private sectors</p> <p>Maximizing VFM by considering life-cycle costs, opportunity for third party provision of ancillary services, and third party revenue opportunities</p>	<p>the project is included in capital budget</p> <p>2. Conduct a public sector comparator (PSC) to establish the full and true cost of providing a facility and/or service under a traditional procurement model.</p>	<p>qualified proponents)</p> <ul style="list-style-type: none"> <li>- The bundling of design, build and operate will likely result in an expedited completion of a capital asset, and will likely result in innovation, reduced cost and reduced duplication in the assumption of risk</li> <li>- On-time/on-budget and protection against scope creep</li> </ul>	<ul style="list-style-type: none"> <li>- There is no bias in evaluating procurement</li> <li>- Quality standards can be maintained and the long-term viability of a PPP service provider can be expected</li> <li>- A full evaluation of costs and benefits on a whole life basis is undertaken including an assessment of risk</li> </ul>
<p>Infrastructure UK – Private Financing Initiatives (PFIs)</p>	<p>PPP arrangements typically typified by joint working arrangements between the public and private sectors. Can cover all types of collaboration across the interface</p>	<p>Assessments of VFM at three levels:</p> <ol style="list-style-type: none"> <li>1. Program – procuring authority undertakes a qualitative and quantitative analysis</li> <li>2. Project – project team conducts more detailed analysis on the individual projects making up the program. Includes upfront</li> </ol>	<ul style="list-style-type: none"> <li>- Under the contract the private sector will need to construct and maintain infrastructure in order to deliver the services required, hence their will be a development of construction phase</li> </ul>	<p>Defined as the optimum combination of whole-of-life costs and quality (or fitness for purpose) of the good or service to meet user’s requirements. VFM is not the choice of goods or services based on the lowest cost of bid. To undertake well-managed procurement, it is necessary to consider up front, at the earliest stage of procurement, what the key drivers of VFM are.</p>

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procurement appraisal at Outline Business Case (OBC) and identifies key aspects of VFM.

3. Procurement – involves continuous appraisal of VFM benefits until the financial close. This stage ensures the conclusions from the previous stages continue to hold given the latest information including prevalent market conditions.

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## Appendix V - Overview of the Canadian Health System

Generally speaking, there are three recognized health system models in developed countries across the world: the Bismarck Model, the Beveridge Model and the National Health Insurance Model. In Bismarck countries such as Germany, Japan, France and Belgium, both health care providers and payers are private entities. The Bismarck model uses private health insurance plans, usually financed jointly between employers and employees through payroll deductions. However the health insurance organizations are non-profit. The Beveridge Model is a health system where health care is provided and financed by the government through tax payments; medical treatment is a public service. Italy, Spain and most of Scandinavia use this model. The National Health Insurance model is the model used in Canada and has elements of both the Bismarck and Beveridge models where the providers of health care are private not-for-profit organizations, but the payer is a government-run insurance program that every citizen pays into (Healing America, T.R. Reid, 2009).

Canada's national health insurance program, often referred to as "Medicare", is a government-funded universal health insurance program established by legislation passed in 1957, 1966 and 1984. Medicare is designed to ensure that all residents have reasonable access to medically necessary hospital and physician services, on a prepaid basis. Instead of having a single national plan, Canada has a national program that is composed of 13 interlocking provincial and territorial health insurance plans, all of which share certain common features and basic standards of coverage. In contrast to

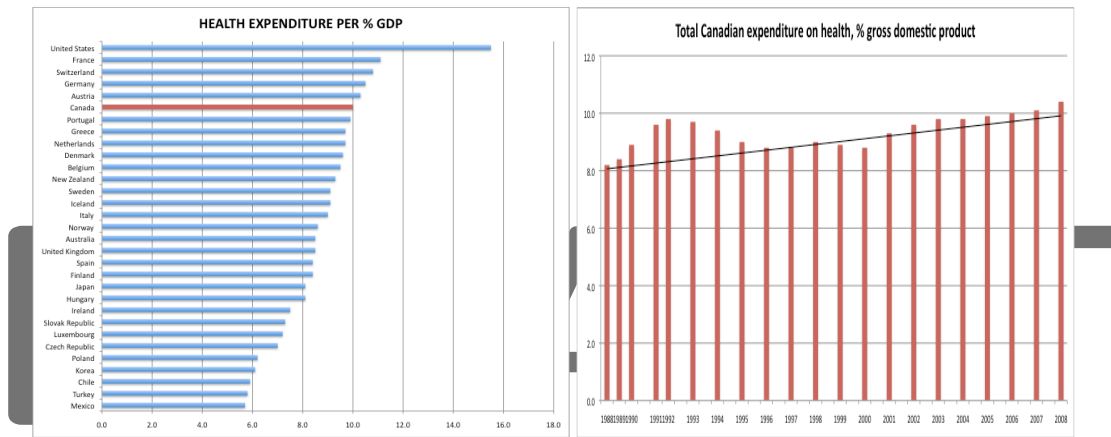
the United States, where Medicare is restricted to the elderly, the Canadian Medicare program provides universal coverage for all citizens and permanent residents, enabling them to access services throughout the country when they travel or move from province to province (Canadian Museum of Civilization, 2010).

Framed by the *Canada Health Act*, the principles governing the Canadian health care system represent the underlying Canadian values of equity and solidarity. Roles and responsibilities for Canada's health care system are shared between the federal and provincial-territorial governments. Under the *Canada Health Act (CHA)*, Canada's national health insurance legislation, criteria and conditions are specified that must be satisfied by the provincial and territorial health care insurance plans in order for them to qualify for their full share of the federal cash contribution, available under the Canada Health Transfer. The ten provincial and three territorial governments are responsible for the management, organization and delivery of health services for their residents (Health Canada, 2010). Canada ranks 30<sup>th</sup> in the WHO's ranking of the best healthcare systems in the world and ranks in the top standings for the nations with the most responsive health systems (World Health Organization, 2000).

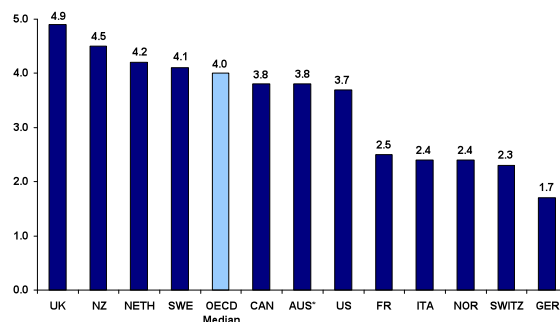
According to the Canadian Institute for Health Information, in 2009 total Canadian health care expenditures reached \$181.3 billion Canadian dollars, which equated to a 5.5% increase from the previous year. Areas where costs grew included spending on hospitals or drugs. Since 1997, the proportion of spending between the private and public sector with their share of total spending remaining at roughly 30% and 70% respectively (Canadian Institute for Health Informatics, 2009).

## The Canadian Health Care System

According to OECD data from 2006, Canada ranks 6th in terms of highest health expenditure per percentage of GDP as compared to other OECD countries, as depicted in Figure X below. In 2006, Canadian health expenditure as a percentage of GDP totaled 10%; by 2008, this number had increased to 10.4%. A review of the data over a 20-year period from 1998 to 2008 reveals a steady increase in health expenditures year-over-year.



These issues are not unique to the Canadian health care system and other OECD member countries face similar challenges in coming years both in terms of continuously rising health care costs and in increased demands care. However, OECD data reveals that although growth in health care expenditures is below the OECD median, Canada is still well above many other OECD member countries based on real health care spending year-over-year.





## Local Health Integration Networks (LHINs)

In 2006, the Ontario provincial government introduced the Local Health Integration Networks (LHINs) Act. The legislation created 14 regional authorities across the province of Ontario that would be responsible for the planning, management and funding of health services in each of the regional areas across Ontario. A map of the breakdown of the 14 LHINs is provided below.



Source: (Ontario Local Health Integration Networks, 2011)

The LHINs were established to create an integrate health system that would enable local communities to make decisions about their local health systems. The LHINs were legislated with the authority to engage their communities, proactively plan an effective service system, facilitate integration and system transformation, and manage the overall funding of the health system within their delivery authority. In theory, under the LHIN model, local service providers retain their focus on service delivery, their individual corporate identities, and their local Boards. LHINs are Crown Agencies with

their own Boards of Directors appointed through an Order of Council (OIC) (KPMG LHIN Effectiveness Report, 2008). With the introduction of the LHINs, the Ministry of Health and Long-Term care was intended to transition to a stewardship-focused role in the Ontario health system. Specifically, the MOHLTC would be responsible for setting direction, strategic policy and system standards and for delivering provincial programs and services such as the provincial health insurance program, OHIP (Ontario Health Insurance Program) (Ministry of Health and Long-Term Care, 2010).

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