

Promoting and improving patient safety and health service quality across Alberta

#### 1.0 HQCA AND BACKGROUND

The Health Quality Council of Alberta (HQCA) is an independent organization legislated under the *Health Quality Council of Alberta Act*, with a mandate to survey Albertans on their experience and satisfaction with patient safety and health service quality.

The HQCA first completed an emergency department survey and report in 2007, which was the product of a collaboration between the Alberta health regions at the time, the Ministry of Health, and other stakeholders, including a working group comprised of emergency department medical professionals, managers, and academics. The survey was repeated in 2009. The 2007 and 2009 emergency department patient experience surveys were each conducted over a single two-week period (once in each year), and reports are available on the HQCA website (www.hqca.ca).

In 2010, the HQCA made a significant change to its process for conducting emergency department patient experience surveys. In consultation with Alberta Health Services (AHS), the HQCA shifted to sampling emergency department patients every two weeks beginning in June 2010. This bi-weekly surveying continued until July 2013.

The purpose of the change to more frequent sampling in 2010 was to better monitor variation and detect changes in emergency department patient experience over time in Alberta's urban or regional emergency departments. iii This enabled the HQCA to provide emergency department stakeholders (particularly those at the site level) with relevant information that they could use to inform their patient experience, quality of care, and patient safety improvement efforts.

The HQCA completed the administration of this survey in July 2013. At that time, the HQCA sought to transition this work to AHS; however, this transition did not materialize. In April 2016, the HQCA launched its most-recent iteration of the emergency department patient experience survey, reinitiating the bi-weekly sampling and surveying established in 2010-2013.

Prior to the April 2016 launch of the current emergency department patient experience survey, the HQCA reviewed alternative emergency department patient experience surveys, and compared them with the instrument used by the HQCA since 2007. In consultation with emergency department stakeholders, including Alberta Health, AHS, Covenant Health, Alberta Medical Association, academia, and patients, the HQCA chose to replace the previous survey instrument with a questionnaire based on the Emergency Department Patient Experience of Care (EDPEC) Survey developed by the RAND Corporation. In Corporation.

As a result of this shift in survey instruments and survey content, a valid comparison of the results cannot be made between the current results and those produced in either 2007, 2009, or from 2010-2013. However, as in previous surveys, the HQCA's current instrument is focused on patient experience

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<sup>&</sup>lt;sup>1</sup> These reports can be retrieved from the HQCA website, at http://hqca.ca/surveys/emergency-department-patient-experience/.

ii As a result of the change in survey methodology, a valid comparison of the patient experience results for 2010-2013 with the 2007 and 2009 point-in-time results is not possible because of the broader time frame and different sampling frequency employed for this survey.

Additionally, monitoring results over the calendar year allows for the identification of seasonal variability, which was impossible with the point-in-time approach used in the 2007 and 2009 surveys.

<sup>&</sup>lt;sup>IV</sup> The EDPEC Survey has not been made public by the RAND Corporation yet. As such, the HQCA is using this tool with the written permission of the RAND Corporation.

of emergency department care in Alberta's busiest urban and regional hospital emergency departments. The 16 sites included in the current survey are:

- Alberta Children's Hospital (Calgary)
- Chinook Regional Hospital (Lethbridge)
- Foothills Medical Centre (Calgary)
- Grey Nun's Community Hospital (Edmonton)
- Medicine Hat Regional Hospital
- Misericordia Community Hospital (Edmonton)
- Northern Lights Regional Health Centre (Fort McMurray)
- Peter Lougheed Centre (Calgary)
- Queen Elizabeth II Hospital (Grande Prairie)
- Red Deer Regional Hospital
- Rockyview General Hospital (Calgary)
- Royal Alexandra Hospital (Edmonton)
- South Health Campus (Calgary) not surveyed in 2007, 2009, or from 2010-2013
- Stollery Children's Hospital (Edmonton)
- Sturgeon Community Hospital (St. Albert) not surveyed in 2007 or 2009
- University of Alberta Hospital (Edmonton)

## 1.1 An ongoing focus on emergency department care

In undertaking the 2007, 2009, and 2010-2013 surveys, the HQCA recognized the following points that are equally applicable to the current (2016+) survey:

- The emergency department is the "canary in the coalmine". Many of the challenges facing emergency departments in Alberta, including crowding issues, are health system issues where the causes of problems and their solutions extend beyond the emergency department itself. In this context, improving the experience of patients, and their quality of care, needs to include strategies at broader hospital, AHS zone, and health system levels.
- Emergency department facilities are diverse in terms of the type and volume of services they provide to the community, their size, patient population, and the causes and degree of pressures they experience. However, it is recognized that facilities may not be able to influence all of the factors that impact their performance from a patient experience perspective.

Beginning with the 2010-2013 report (and continuing with the current survey), the HQCA recognized that provincial aggregate results have their limitations. Primarily, provincial aggregate results assume that patients presenting to different sites all enter the same provincial emergency department care delivery system, and this is not the case. As mentioned above, emergency department facilities are extremely diverse; this extends to the programs and initiatives they implement as well as to how patients rate the care they receive. By aggregating results from all sites into a provincial patient experience score, important between-site differences are masked along with valuable actionable information at the site level. Recognizing that patients presenting to different sites do not all enter an identical care delivery system led the HQCA to focus on patient experience at the site level.

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# 1.2 Purpose of the current survey

The purpose of the current (2016+) survey is to monitor variation in emergency department patient experience over time at the 16 busiest emergency department sites in Alberta. These are the sites with the greatest crowding pressures, longest wait times, and historically the poorest patient experience in the province. Additionally, this work aims to:

- Provide actionable information about patient experience over time that will assist care
  providers at both the provincial and site levels to improve the quality of emergency department
  patient care.
- Provide stakeholders (including the public) with site-specific patient experience results in conjunction with results from other sites to encourage comparison for the purpose of shared learning.vi The HQCA believes that comparison has the potential to aid in the identification of weak or strong aspects of emergency department care delivery. This may encourage discussion regarding practices employed by the higher-performing sites and facilitate learning from best practices.
- Stimulate conversations about patient experience in emergency departments. The HQCA believes in the power of information. The acronym FOCUS, from the HQCA's FOCUS on Emergency Departments initiative, stands for Fostering Open Conversations that Unleash Solutions. This is the ultimate goal of this survey and the larger FOCUS initiative.
- Encourage and model transparency about Albertans' healthcare system through quarterly public reporting of patient experience results on a user-friendly and interactive website. Public reporting fosters trust among the public the system serves, and evidence indicates that when quality measures are publically reported, the results tend to improve over time.

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<sup>&</sup>lt;sup>v</sup> The HQCA's 2007 Emergency Department Patient Experience Survey (which can be accessed at: <a href="http://hqca.ca/surveys/emergency-department-patient-experience-survey">http://hqca.ca/surveys/emergency-department-patient-experience-survey</a>) found that patients generally reported more positive patient experience at rural emergency department sites, compared to larger urban and regional sites.

vi The HQCA's reporting initiative for this survey – an interactive web-based platform called FOCUS on Emergency Departments – has, in consultation with emergency department stakeholders, grouped sites into peer groupings so that similar hospitals (based on size, volume, services, proximity to large urban/metropolitan centres) are fairly compared.

#### 2.0 SURVEY METHODOLOGY

## 2.1 Selection of survey tool, validation, and testing

Prior to the April 2016 launch of the current emergency department patient experience survey, the HQCA, in consultation with emergency department stakeholders, reviewed the relevant literature, previously developed emergency department survey tools, and survey material from both the public and private domain. As a result, several well validated survey tools were identified as options. The Emergency Department Patient Experience of Care (EDPEC) Survey tool, developed by the RAND Corporation, was ultimately selected based on multiple criteria. The decision to use this instrument reflects a number of benefits associated with this survey tool. These benefits include:

- The EDPEC is a new evolution of emergency department patient experience surveys. A significant aspect of the RAND Corporation's development of this instrument involved an initial review of existing emergency department patient experience surveys, including the HQCA's previous survey tool. The information gathered from this extensive review informed the creation of the EDPEC.
- The EDPEC has been extensively validated. The RAND Corporation's survey development process has involved extensive testing and validation of the survey tool in the United States. Viii This validation work continues. Viii The HQCA's EDPEC questionnaire was also validated in Alberta prior to use.
- The EDPEC will be used in other jurisdictions. The RAND Corporation is developing the EDPEC Survey under contract by the Centers for Medicare & Medicaid Services (CMS) in the United States. CMS has implemented a number of Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys to assess patient experience in a number of different healthcare service sectors. The intent of this contractual relationship is to develop a survey that follows CAHPS principles and addresses patients' experiences with emergency department services. This product will likely be considered for endorsement as a CAHPS instrument once complete. As a CAHPS instrument, this survey would be used extensively in the United States. In Canada, the HQCA has been in correspondence with health quality organizations in both British Columbia and Ontario about the use of this survey instrument. Currently, Ontario has implemented the EDPEC survey, while British Columbia plans to begin surveying with this tool in 2017. The EDPEC's use in these jurisdictions will allow for both inter-provincial and international comparisons.

This survey instrument, developed by the RAND Corporation for CMS, was used as the core set of questions for the HQCA survey with written permission from the RAND Corporation. Building on the EDPEC Survey, the HQCA retained additional items from the HQCA's previous emergency department patient experience survey to reflect the unique Alberta context. In addition, the EQ-5D (a five-item

vii For more information about the circumstances driving the development of this survey, see bullet titled "The EDPEC will be used in other jurisdictions" below.

viii Because the validation period has not been closed by the RAND Corporation, the EDPEC Survey is not yet publically available. Therefore, the HQCA is using this instrument with written permission from the RAND Corporation. One of the principles of CAHPS is that all tools will be made available publically, so in the future this could become unnecessary.

ix For more information about survey development, please visit:

http://www.rand.org/content/dam/rand/pubs/research\_reports/RR700/RR761/RAND\_RR761.pdf.

health related quality of life measure) was included with permission of the EuroQol Foundation.\* In total, the HQCA employs four different survey versions, including:

- An instrument for adult (16 years of age or older) patients who were discharged to the community from the emergency department.
- An instrument for adult (16 years of age or older) patients who were admitted to the hospital as inpatients from the emergency department.
- An instrument for a parent or guardian of pediatric (12 years of age or younger) patients who were discharged to the community from the emergency department.
- An instrument for a parent or guardian of pediatric (12 years of age or younger) patients who were admitted to the hospital as inpatients from the emergency department.xi

The EDPEC's core survey questions underwent several rounds of field testing and validation work, which included psychometric testing, from 2012 to 2016, as part of the survey development work by the RAND Corporation. In February and March of 2016, a pilot test involving 1,125 emergency department patients was conducted. The pilot test conducted by the HQCA involved adults and children who visited one of Alberta's 16 busiest emergency departments during February and March of 2016.xii The pilot test helped to uncover challenges in conducting the survey and to establish the survey methodology.

The full survey was launched in April 2016. Following five months of data collection, in August 2016, further evaluation of psychometric properties, validity, and reliability at the patient level were conducted. Additionally, evaluation of structure and validity of possible composite indicators (components/factors) was conducted.xiii

# 2.2 Privacy impact assessment

As a custodian under the *Health Information Act of Alberta*, the HQCA submitted a privacy impact assessment (PIA) to conduct this survey and related data matching and analysis. The PIA was initially submitted to and was accepted by the Office of the Information and Privacy Commissioner (OIPC) of Alberta in 2007. In 2016, the HQCA submitted an amendment to this original PIA, outlining the HQCA's new emergency department patient experience survey instrument and the decision to shift from point-in-time (cross-sectional) surveying to bi-weekly (semi-continuous) surveying. This amendment was also accepted by the OIPC.

# 2.3 RFP and selection of survey vendor

The HQCA had previously selected and engaged the services of Prairie Research Associates Incorporated (PRA), a national research firm, to conduct the 2007, 2009, and 2010-2013 emergency department patient experience surveys. In 2015, the HQCA put out an open call for proposals to conduct the current (2016+) survey. Eight proposals were received and reviewed by the HQCA on a number of standardized criteria, resulting in the selection of PRA to conduct the current version of the HQCA's emergency department patient experience survey.

x For more information about the EQ-5D and the EuroQol Foundation, please visit http://www.eurogol.org/home.html.

xi Copies of the HQCA's four emergency department survey versions are provided in Appendix IV.

xii Surveys for the pediatric population (12 years of age or younger) were conducted with a parent or guardian of patients at the Alberta Children's Hospital and the Stollery Children's Hospital. The survey instrument for this population was field-tested along with the adult version and was modified to facilitate responses from a third party rather than the actual patient.

xiii More information regarding the calculation of these composite indicators is provided in Appendix I.

# 2.4 Preparation of data

Substantial assistance was provided by AHS personnel in extracting and preparing data files from regional data sets and emergency department information systems. HQCA staff engaged with AHS personnel to consolidate data from different source systems into a single cleaned and formatted data set, which is housed on a secure AHS server in the Alberta Health Services Data Repository for Reporting (AHSDRR). For efficiency, this data set is designed to automatically refresh daily. This data set provides the basis for sample creation. Subsequent cleaning and manipulation of the data is conducted by the HQCA to generate a consolidated sample frame database for the survey.

# 2.5 Sample design and selection

The HQCA provides PRA with stratified random samples of patients drawn from each of the 16 emergency department sites every two weeks, such that lag time from the actual emergency department visit is controlled between samples. Site-level sample sizes have been determined to reflect the principles of statistical process control (SPC) methods, and allow for the monitoring of patient experience over time. The number of patients surveyed per site, every two weeks (in each sample wave), is not statistically representative of the populations treated at each of these sites in that sampling period; the sample size is set at the level required (based on predicted response rates) to be statistically representative of the population treated at each site every six months. The provided response rates are considered to the population treated at each site every six months.

To identify the sample, patients are first stratified by discharge disposition (i.e., discharged to community or admitted to the hospital), and then selected randomly from the entirety of their respective subpopulation (i.e., patients discharged to community or admitted to the hospital) for the sampling period.<sup>xvi</sup> Sample weights are calculated to adjust for this over-sampling of patients admitted to the hospital, as well as to compensate for the increased probability of patient selection in low volume sites (sample sizes are proportionately larger for smaller sites).<sup>xvii</sup>

Patients are excluded from sample selection and randomly replaced with eligible cases for a number of reasons. These include:

- Children aged 0 to 15 for the 14 adult emergency department sites
- Patients older than 12 for the two Children's Hospital emergency department sitesxviii
- Patients who left the emergency department without being seen or treated
- Patients who died in the context of their emergency department or inpatient stay
- Patients without contact information (phone number)
- Privacy-sensitive cases (e.g., domestic abuse, attempted suicide, etc.)

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xiv See Appendix II for an explanation of the sample size determination and the principles of SPC methods.

w More information about the statistical representativeness calculation (with finite population correction) can be found at: <a href="http://www.sut.ac.th/im/data/read6.pdf">http://www.sut.ac.th/im/data/read6.pdf</a>.

xvi A stratified random sample was selected as the sampling method to allow for comparison between emergency department patients who were discharged to the community and those who were admitted to the hospital as inpatients. This method requires oversampling patients who were admitted to the hospital, so that they comprise about 50 per cent of survey respondents at each site (in reality, approximately 15 per cent of emergency department patients are admitted to the hospital).

xvii See Appendix III for more information about the calculation of sample weights.

xviii Youth over 12 are excluded because of potential privacy concerns (versus parental involvement) and because this would require mixing two forms of the survey (proxy and self-administered), which might introduce bias.

• Duplicate visits and respondent selection within the past year

As with the 2010-2013 survey, since April of 2016 PRA has been provided with samples of patients who visited each of the 16 sites every two weeks. $^{xix}$ 

## 2.6 Survey process

The HQCA's current (2016+) emergency department patient experience survey is conducted exclusively by telephone. A computer-assisted telephone interviewing (CATI) system (Voxco) is used to administer the survey. The CATI system allows for skip patterns to be programmed into the survey, tracks call outcomes for each telephone number dialed, and eases the management of interview scheduling and callbacks.

When a respondent is reached, interviewers ask if the respondent is willing and able to complete the survey at that time. If they are unable to complete the survey at that time, interviewers schedule a time to re-contact the participant to conduct the survey at a time that is convenient for them (either day or night). Telephone numbers for which there is no answer are called at different times of the day. This ensures that shift workers and others who are not home during the evening have an opportunity to be contacted. Up to nine call attempts are made in an attempt to reach potential respondents. When a final outcome is reached (i.e., completed survey, refusal), potential respondents are no longer called. Table 1 shows the timeline of the HQCA's emergency department patient experience survey process.

**Table 1:** Survey protocol timelines per wave

Activity	Responsibility	Day
Extraction of samples	HQCA	Day 1
Send sample files to PRA	HQCA	Day 1
Clean sample	PRA	Day 2
Telephone surveying begins	PRA	Day 2
Look up not-in-service or unreachable phone numbers	PRA	Day 5-10
Continue calling active numbers	PRA	Day 3-20
Present monthly data set to the HQCA (2 sample waves)	PRA	By day 37 <sup>xx</sup>

xix Patients who were discharged to the community are eligible to be sampled if they visited the emergency department in the previous two-week period (14 days), whereas, patients who were admitted to the hospital as inpatients are eligible to be sampled if their visit to the emergency department was in the previous 30 days. Extending this time period to 30 days allows those who were inpatients for longer periods of time to participate, while still limiting the amount of time between the patient's emergency department visit and their participation in the survey.

<sup>\*\*</sup> The HQCA is presented with monthly survey data from PRA (includes two sample waves). These data sets are received approximately 37 days after sample data extraction (day one) for odd numbered samples, and approximately 23 days after sample data extraction (day one) for even numbered samples.

# 2.7 Response rates

Using this protocol, the HQCA was able to achieve an overall response rate of 26.3 per cent (15,910 completed out of 60,518 called to participate in the survey). Table 2 shows a breakdown of the outcomes for the survey process over the first year of surveying, from April 2016 to March 2017.

**Table 2:** Summary outcomes – April 2016 to March 2017

Outcome	April 2016-Marc	h 2017
Outcome	N	%
Total sample	65,323	100%
Total used sample	60,518	92.6%
Total completed	15,910	26.3%
Non-respondents (protocol complete)	33,139	54.8%
Refused	5,709	9.4%
Language Barrier	1,595	2.6%
Unable due to illness	2,042	3.4%
Incorrect contact information	1,420	2.3%
Deceased	571	0.9%
Denied visiting emergency department	132	0.2%
Note: Percentages based on total used sample.	1	,

- 54.8 per cent of the sample were called but not reached and, therefore, did not complete the survey.
- 9.4 per cent of the sample were reached by phone, but refused to complete the survey.
- 2.3 per cent of the sample had incorrect contact information, meaning they could not be reached by phone.
- 0.9 per cent of the sample was deceased at the time of the survey.xxi

<sup>&</sup>lt;sup>xxi</sup> While individuals who died in the context of their emergency department or inpatient stay were removed from the sample, it was not feasible to identify individuals who died afterwards.

Table 3 shows the response rates by site, which ranged from 25.4 per cent to 28.7 per cent over the first year of surveying, from April 2016 to March 2017.

**Table 3:** Response rate by site – April 2016 to March 2017

Facility	Sample size	Used sample	Compl- etes	Raw response rate	Refusals	Incorrect contact info	Language barrier or too sick
	(n)	(n)	(n)	(%)	(n)	(n)	(n)
Alberta Children's Hospital	3,917	3,632	962	26.5%	92	49	76
Chinook Regional Hospital	4,321	4,039	1,048	25.9%	416	120	271
Foothills Medical Centre	3,920	3,755	961	25.6%	343	61	280
Grey Nuns Community Hospital	4,326	4,038	1,048	26.0%	398	104	331
Medicine Hat Regional Hospital	4,311	3,916	1,044	26.7%	483	90	199
Misericordia Community Hospital	4,326	4,006	1,050	26.2%	410	102	302
Northern Lights Regional Health Centre	3,098	2,684	729	27.2%	253	38	85
Peter Lougheed Centre	3,918	3,784	960	25.4%	360	120	379
Queen Elizabeth II Hospital	4,275	3,934	1,043	26.5%	438	101	158
Red Deer Regional Hospital	4,316	3,914	1,049	26.8%	411	72	171
Rockyview General Hospital	3,907	3,746	960	25.6%	368	77	255
Royal Alexandra Hospital	4,318	4,096	1,041	25.4%	403	170	318
South Health Campus	3,910	3,722	963	25.9%	342	78	221
Stollery Children's Hospital	4,077	3,508	1,006	28.7%	92	43	52
Sturgeon Community Hospital	4,303	3,879	1,041	26.8%	474	82	261
University of Alberta Hospital	4,080	3,865	1,005	26.0%	426	113	278
TOTAL	65,323	60,518	15,910	26.3%	5,709	1,420	3,637

# 2.8 Definition of compared groups

The patients from the 16 emergency department sites that participated in this survey should not be considered representative of the entire population of emergency patients in the province of Alberta. In fact, many smaller rural sites have not been included in this survey. The HQCA used the following criteria to identify the emergency departments that would participate in the survey:

- The site needed to have at least 50,000 emergency department visits per year, and
- The site needed to be attached to a hospital that offers acute care services (the emergency department needs to have the ability to admit patients to the hospital, without having to transfer them to another facility).

In general, the 16 large urban or regional hospital emergency departments surveyed are faced with different and often more severe challenges than smaller rural emergency departments. This survey focuses on sites that routinely deal with the greatest crowding pressures, longest wait times, and historically the poorest patient experience.<sup>xxii</sup>

While it is possible to perform provincial-level analyses (an aggregate of the 16 sites surveyed) using the data collected from this survey, the HQCA has avoided such reporting. The fundamental flaw of provincial-aggregate results is that they assume patients presenting to different sites all enter the same provincial emergency department care delivery system; and this is not the case. Emergency department facilities are diverse regarding the programs and initiatives they implement to improve care. Thus, sitelevel results are the source of actionable information in terms of improvement opportunities.

Furthermore, the HQCA encourages the comparison of sites for the purpose of shared learning. To facilitate this, the HQCA's reporting initiative for this survey – an interactive web-based platform called FOCUS on Emergency Departments – has, in consultation with emergency department stakeholders, grouped sites into peer groupings so that similar hospitals (based on size, volume, services, proximity to large urban/metropolitan centres) are fairly compared. Emergency department sites are assigned to one of the following four peer groups:

- Large urban with trauma: Hospitals considered trauma centres have medical staff and resources dedicated to the care of major trauma patients. They provide advanced healthcare services (e.g., burn unit, neurosurgery, cardiac ICU, transplant services). In Alberta, these are the University of Alberta Hospital and the Royal Alexandra Hospital in Edmonton, and the Foothills Medical Centre in Calgary.
- Large urban: Includes non-trauma hospitals located in Calgary and Edmonton that provide a full range of acute care services. In Calgary, these hospitals have specialized services not located at the trauma centre. The large urban sites include the Grey Nuns Community Hospital and the Misericordia Community Hospital in Edmonton, and the Peter Lougheed Centre, the Rockyview General Hospital, and the South Health Campus in Calgary.
- **Medium urban:** Includes regional hospitals that serve southern, northern, and central Alberta with intensive care units, as well as acute care services, obstetrics, surgery, mental health, and geriatrics. These hospitals also offer early stabilization of major trauma patients and transfers to

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xxiii Based on the HQCA's 2007 emergency department survey results, patient experience tends to be more positive at the smaller rural emergency department sites.

trauma centres. The medium urban sites include the Chinook Regional Hospital (Lethbridge), the Medicine Hat Regional Hospital, the Northern Lights Regional Health Centre (Fort MacMurray), the Queen Elizabeth II Hospital (Grande Prairie), the Red Deer Regional Hospital, and the Sturgeon Community Hospital (St. Albert).

• Children's: Hospitals for patients from birth to 18 years of age, with care delivered by multidisciplinary clinical trauma teams. These hospitals account for the unique needs of children and their families, including anatomic, physiologic, and psychologic differences, maintaining a setting of family-centered care. These include the Alberta Children's Hospital in Calgary and the Stollery Children's Hospital in Edmonton.

# APPENDIX I: PRINCIPLE COMPONENTS ANALYSIS, COMPOSITES, AND RELIABILITY

#### Principle components analysis

To examine the potential for composite variables and to examine the structure of the data, correlation and a principle components analysis were conducted on the data set using Stata and SPSS. Principle components analysis uses correlation and covariance between individual variables to identify sets of variables that share common underlying "themes". In this case, the principle components analysis was conducted on items which target emergency department quality issues as opposed to the context of the emergency department visit.

The principle components analysis utilized a number of different approaches. Different assumptions regarding missing data were also tried, with similar results to those presented in Table 4. The most effective and logically consistent results came from the use of pair-wise deletion of missing data as opposed to list-wise deletion or substitution (or imputation) of the mean.

Varimax (orthogonal) and promax (oblique) rotation were applied (to 'align' related variables in 3-dimensional space) with similar results. The various models were set to extract components with eigenvalues greater than one, consistently resulting in similar five-component solutions. No components consisted of a single survey question; therefore, it was seen to be unnecessary to force the number of components to be extracted by the models.

The final model resulted in a five-component solution and used varimax (orthogonal) rotation. Component item membership is logically consistent, and similar in different study groups. XXIII A summary of the final principle components analysis results (based on the rotated component matrix) are presented in Table 4.

An extremely consistent and logical component structure emerged regardless of intentional variation in methods, suggesting that the survey questions have good construct validity, cover a diversity of patient issues, and represent discrete themes. This appears to reflect the high quality of validation work undertaken by the RAND Corporation in the development of the original Emergency Department Patient Experience of Care (EDPEC) survey instrument.

#### **Internal consistency reliability**

Following the principle components analysis, the items that correlated strongly with a particular component were analyzed to determine the internal consistency reliability of each potential multi-item composite scale using Cronbach's alphaxxiv and standardized Cronbach's alpha.xxv Alphas are expected to be lower if items within the scale reflect more than one underlying dimension. As shown in Table 5, alphas for tested scales are high in most cases, with the exception of the 'communication about treatment' composite at 0.25. The items which make up this composite were dropped due to this poor internal consistency reliability score (alpha), suggesting that the items did not fit optimally within the same scale. Among the four remaining composites, the alphas range from 0.83 for the 'communication

<sup>&</sup>lt;sup>xxiii</sup> Preliminary principle components analysis models were run separately for admitted and discharged emergency department patients.

xxiv Cronbach's alpha is a frequently used measure of internal consistency reliability for scales. Specifically, it is a measure of squared correlation between observed scores and true scores.

xxv Raw alpha is based on item correlation and standardized alpha is based on covariance.

with patients by emergency department doctors' composite to 0.42 for the 'getting timely care' composite. In general, the higher the alpha, the more reliable the measure; all composites other than the 'getting timely care' composite and the dropped 'communication about treatment' composite exceed the 'acceptable' alpha of 0.70 suggested by Nunnally.<sup>1</sup>

Regarding the 'communication with patients by emergency department doctors' composite and the 'communication with patients by emergency department nurses' composite, one item in each scale was retained despite minimal predicted improvements in their alphas if dropped. This was due to theoretical arguments for their inclusion in the composite scale and the inconsequential predicted improvement of the alpha.

**Table 4:** Principle components analysis (PCA) – rotated component matrix

	Communication with patients by	Communication with patients by	Communication with		Communication about
	emergency	emergency	patients about		treatment (dropped
Variable label	department doctors	department nurses	medicines	Getting timely care	reliability)
Q21. During this emergency department visit, how often did doctors					
introduce themselves to you?	0.613	0.237	0.058	0.089	-0.001
Q22. During this emergency department visit, how often did doctors treat					
you with courtesy and respect?	0.826	0.227	0.002	0.068	0.050
Q23. During this emergency department visit, how often did doctors					
listen carefully to you?	0.839	0.219	0.074	0.067	0.074
Q24. During this emergency department visit, how often did doctors					
explain things in a way you could understand?	0.783	0.226	0.148	0.026	0.051
Q17. During this emergency department visit, how often did nurses					
introduce themselves to you?	0.138	0.652	0.115	0.216	0.015
Q18. During this emergency department visit, how often did nurses treat					
you with courtesy and respect?	0.245	0.807	-0.026	0.100	0.033
Q19. During this emergency department visit, how often did nurses listen					
carefully to you?	0.280	0.810	0.056	0.071	0.071
Q20. During this emergency department visit, how often did nurses					
explain things in a way you could understand?	0.341	0.707	0.180	0.026	0.102
Q10. Before giving you any new medicine, did the doctors or nurses					
describe possible side effects to you in a way you could understand?	0.154	0.050	0.848	0.090	0.063
Q14. Before giving you pain medicine, did the doctors and nurses					
describe possible side effects in a way you could understand?	0.070	0.143	0.849	0.071	0.019
Q4. When you first arrived at the emergency department, how long was it					
before someone talked to you about the reason why you were there?	-0.116	-0.118	-0.062	-0.720	0.075
Q6. During this emergency department visit, did you get care within 30					
minutes of getting to the emergency department?	0.031	0.161	0.083	0.780	0.087
* Q7. During this emergency department visit, did the doctors or nurses					
ask about all of the medicines you were taking? (dropped - reliability)	-0.022	0.035	0.061	-0.089	0.622
* Q9. Before giving you any new medicine, did the doctors or nurses tell					
you what the medicine was for? (dropped - reliability)	-0.133	0.106	0.218	-0.084	0.490
* Q12. During this emergency department visit, did the doctors and					
nurses try to help reduce your pain? (dropped - reliability)	0.085	-0.023	-0.133	0.240	0.591
* Q16. During this emergency department visit, did doctors and nurses					
give you as much information as you wanted about the results of these					
tests? (dropped - reliability)	0.174	0.029	-0.020	0.013	0.476
Components with eigenvalues greater than 1 were extracted.  Varimax rotation used to generate the table above.					

Varimax rotation used to generate the table above.

Items preceded by an \* were dropped to improve reliability.

**Table 5:** Internal consistency reliability, by composite

		PCA			Average interitem	Cronbach's Alpha if	Cronbach's (scale)
Variable label	Composite	coefficient	Item-test correlation	Item-rest correlation	correlation	item dropped	Alpha
Q21. During this emergency department visit, how often did doctors							
introduce themselves to you?	1	0.613	0.725	0.509	0.652	0.849	0.83
Q22. During this emergency department visit, how often did doctors treat							
you with courtesy and respect?	1	0.826	0.851	0.715	0.508	0.756	0.83
Q23. During this emergency department visit, how often did doctors							
listen carefully to you?	1	0.839	0.865	0.743	0.493	0.745	0.830
Q24. During this emergency department visit, how often did doctors							
explain things in a way you could understand?	1	0.783	0.822	0.666	0.542	0.780	0.830
Q17. During this emergency department visit, how often did nurses							
introduce themselves to you?	2	0.652	0.723	0.502	0.613	0.826	0.81
Q18. During this emergency department visit, how often did nurses treat							
you with courtesy and respect?	2	0.807	0.829	0.668	0.497	0.747	0.81
Q19. During this emergency department visit, how often did nurses listen							
carefully to you?	2	0.810	0.854	0.716	0.470	0.726	0.81
Q20. During this emergency department visit, how often did nurses							
explain things in a way you could understand?	2	0.707	0.812	0.643	0.516	0.762	0.81
Q10. Before giving you any new medicine, did the doctors or nurses							
describe possible side effects to you in a way you could understand?	3	0.848	‡	ŧ	#	<b>‡</b>	0.71
Q14. Before giving you pain medicine, did the doctors and nurses							
describe possible side effects in a way you could understand?	3	0.849	‡	ŧ	#	<b>‡</b>	0.71
Q4. When you first arrived at the emergency department, how long was it							
before someone talked to you about the reason why you were there?	4	-0.720	‡	‡	#	#	0.42
Q6. During this emergency department visit, did you get care within 30							
minutes of getting to the emergency department?	4	0.780	‡	‡	#	#	0.42
Q7. During this emergency department visit, did the doctors or nurses ask							
about all of the medicines you were taking?	5	0.622	0.684	0.105	0.071	0.187	0.25
Q9. Before giving you any new medicine, did the doctors or nurses tell you							
what the medicine was for?	5	0.490	0.624	0.109	0.082	0.211	0.25
Q12. During this emergency department visit, did the doctors and nurses							
try to help reduce your pain?	5	0.591	0.644	0.113	0.075	0.196	0.25
Q16. During this emergency department visit, did doctors and nurses give							
you as much information as you wanted about the results of these tests?	5	0.476	0.646	0.101	0.083	0.213	0.25
Notes:			•		•	•	•

Notes:
Composite 1: Communication with patients by emergency department doctors

Composite 2: Communication with patients by emergency department nurses

Composite 3: Communication with patients about medicines

Composite 4: Getting timely care

Composite 5 (dropped): Communication about treatment

All items making up composite 5 (highlighted red) were dropped due to poor internal consistency reliability.

‡ Item-test correlation, item-rest correlation, average interitem correlation, and Cronbach's Alpha if item dropped only reported when more than two variables are specified

Items in each scale are standardized (mean=0, variance=1) prior to the calculation of Cronbach's Alpha

#### **Composite calculation**

Record-level composite scores were calculated following principles established in the HQCA's 2007 Emergency Department Patient Experience Survey.xxvi

In keeping with the principles established in the HQCA's 2007 emergency department survey, regarding the composite scale, the HQCA has adopted the standardized response scoring scheme (0-100 scale) employed by the Healthcare Commission for the British Emergency Department Survey. XXVII According to this scoring scheme, responses to individual survey questions are scored on a scale from 0 to 100; a score of 0 indicates the lowest ranking of patient experience (suggesting considerable room for improvement), while a score of 100 indicates the highest and best ranking of patient experience. For response options in between the most-negative (0) and the most-positive (100) responses, scores are assigned at appropriate positions along the scale. Examples of this scoring scheme are:

Scale 1			Scale 2		
Never	= (	0	No	=	0
Sometimes	= ;	33	Yes, somewhat	=	50
Usually	= (	67	Yes, definitely	=	100
Always	= 2	100			

Average scores are calculated across all non-missing question responses within the composite for each respondent:

$$Q_i = \frac{\sum (\text{nonmissing composite question response scores for respondent } i)}{\text{Total number of nonmissing composite question responses for respondent } i}$$

Average composite scores are then calculated for each facility:

$$Avg(COMP) = \frac{\sum (Q_i)}{\text{Total number of respondents with nonmissing composite scores}}$$

xxvi For more information on the calculation of composite measures, including the consideration of alternative methods, please see the HQCA's 2007 Emergency Department Patient Experience Survey, accessible at: http://hqca.ca/surveys/emergency-department-patientexperience/emergency-department-patient-experience-survey/.

xxvii More information about this scoring scheme can be found in the User Guide for the British Emergency Department Survey,

accessible at: http://doc.ukdataservice.ac.uk/doc/5092/mrdoc/pdf/5092userguide2004.pdf.

# APPENDIX II: SAMPLE SIZE AND THE PRINCIPLES OF STATISTICAL PROCESS CONTROL (SPC) METHODS

Determining appropriate sample sizes for improvement projects is less well-defined than traditional research projects, primarily because data is often collected over time.<sup>2</sup> As a result, there is no "industry consensus" regarding how to determine appropriate sample size.

Donald J. Wheeler proposes the following questions about sample sizes:3

- Are the data collected in a manner that will allow the charts to detect process changes that are large enough to be of interest?
- Do the data give us the appropriate information needed to take action on our process?

Additional considerations for determining sample size include, but are not limited to, the following:<sup>2</sup>

- project objectives
- data type
- expected rate of meaningful change in the data
- availability of data
- · availability of resources to collect the data
- project importance/visibility

The most desirable methodological solution from the point of view of detecting process shifts for improvement projects would be to take large samples very frequently; however, this is not economically feasible.<sup>4</sup> Sample size issues in improvement efforts are often a balance between resources and the clarity of the results desired.<sup>2</sup> That is, the sample size determination depends on how many respondents are needed to observe changes in the data (non-random variation), without being so expensive that the project is unsustainable.

This issue of appropriately allocating sampling effort often results in the following choice: take smaller samples at shorter intervals or take larger samples at longer intervals. Industry practice favours smaller, more frequent samples because it allows for quicker corrective action when a process shift occurs.<sup>4</sup> Similarly, healthcare providers and quality improvement personnel benefit from more frequent reporting because it enables iterative improvement (causes of positive changes can be reinforced, while causes of negative changes could lead to corrective action). These benefits support the HQCA's decision to survey fewer patients than is required for the sample to be statistically representative of the population treated at each site for a given sampling period.

Many applications of SPC methods use sample sizes as small as five or 10 observations to monitor the quality of a process.<sup>2,4</sup> The HQCA's previous work with emergency department patient experience surveys and the application of SPC methods to historical data suggests that a sample size of 30 to 50 emergency department patients per site, per month, is sufficient to detect meaningful (non-random) changes in patient experience.<sup>xxviii</sup> For this iteration of the HQCA's emergency department survey, the sample size has been

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xxviii For more information on the HQCA's previous application of SPC methods to the analysis of emergency department patient experience data, please see the HQCA's *Urban and Regional Emergency Department Patient Experience Report (2010-2013)*, accessible at: <a href="http://hqca.ca/surveys/emergency-department-patient-experience/">http://hqca.ca/surveys/emergency-department-patient-experience/</a>.

increased to between 80 and 100 patients per site, per month. This change should result in process shifts being detected more efficiently than in the HQCA's previous application of these methods.

#### APPENDIX III: CALCULATION OF SAMPLE WEIGHTS

Sample weights are used to correct for known differences between the sample of respondents who participated in the survey and the population of patients they were drawn from. These differences are the result of the sampling method employed. The HQCA utilizes a two-step sampling design, called stratified random sampling. Using this method, patients are first stratified (separated) by discharge disposition (i.e., discharged to community or admitted to the hospital), and then selected randomly from the entirety of their respective subpopulation (i.e., patients discharged to community or admitted to the hospital) for the sampling period.

Stratified random sampling is used as the sampling method to allow for comparison between emergency department patients who were discharged to the community and those who were admitted to the hospital as inpatients. This method requires over-sampling patients who were admitted to the hospital, so that they comprise about 50 per cent of survey respondents at each site (in reality, approximately 15 per cent of emergency department patients are admitted to the hospital). Sample weights are calculated to adjust for this over-sampling of patients admitted to the hospital, as well as to compensate for the increased probability of patient selection in low volume sites (sample sizes are proportionately larger for smaller sites).

Sample weights are calculated at the site level for each sample wave, xxix as follows:

$$w(DS)_i = \frac{p_{pop}}{p_{samp}}$$

$$w(AD)_i = \frac{p_{pop}}{p_{samp}}$$

Where  $w(DS)_i$  is the calculation of sample weights for patients discharged to the community from the emergency department at site i, and  $w(AD)_i$  is the calculation of sample weights for patients admitted to the hospital from the emergency department at site i.

Also, where  $p_{pop}$  is the proportion of the total population of eligible emergency department patients at site i who were either discharged to the community (in the calculation of  $w(DS)_i$ ) or admitted to the hospital from the emergency department (in the calculation of  $w(AD)_i$ ), and  $p_{samp}$  is the proportion of the sample of respondents from site i who were either discharged to the community (in the calculation of  $w(DS)_i$ ) or admitted to the hospital from the emergency department (in the calculation of  $w(AD)_i$ ).

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The HQCA identifies a new sample of emergency department patients to survey every two weeks; therefore, sample weights are calculated for each individual sample wave and applied to the survey results for each individual sample wave.

ID#\_\_\_\_

# EDPEC Survey—Discharged to Community Instrument

# GOING TO THE EMERGENCY DEPARTMENT

- 1. Thinking about this visit, what was the main reason why you went to the emergency department?
  - O An accident or injury
  - O A new health problem
  - O An ongoing health condition or concern
- 2. Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office? FILL-IN ALL THAT APPLY
  - O The emergency department was the only choice available at the time.
  - O The emergency department was the most convenient place to go.
  - O I (we) thought the emergency department was the <u>best place</u> for my medical problem.
  - O I <u>was told</u> to go to the emergency department rather than somewhere else.

O Other:
----------

- 3. For this visit, did you go to the emergency department in an ambulance?
  - O Yes
  - O No

- 4. When you first arrived at the emergency department, how long was it before someone talked to you about the reason why you were there?
  - O Less than 5 minutes
  - O 5 to 15 minutes
  - O More than 15 minutes
- 5. Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency department, how important was it for you to get care right away?
  - O 0 Not at all important
  - 0 1
  - 0 2
  - 0 3
  - 0 4
  - 0 5
  - 0 6
  - 0 7
  - 0 8
  - 0 9
  - O 10 Extremely important

# DURING YOUR EMERGENCY DEPARTMENT VISIT

- 6. During this emergency department visit, did you get care within 30 minutes of getting to the emergency department?
  - O Yes
  - O No

<ul> <li>7. During this emergency department visit, did the doctors or nurses ask about <u>all</u> of the medicines you were taking?</li> <li>O Yes, definitely</li> <li>O Yes, somewhat</li> <li>O No</li> </ul>	<ul> <li>13. During this emergency department visit, did you get medicine for pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 15</li> <li>14. Before giving you pain medicine, did the doctors and purses describe possible side.</li> </ul>
<ul> <li>8. During this emergency department visit, were you given any medicine that you had not taken before?</li> <li>○ Yes</li> <li>○ Don't Know → If No, go to Question 11</li> <li>○ No → If No, go to Question 11</li> </ul>	doctors and nurses describe possible side effects in a way you could understand?  O Yes, definitely O Yes, somewhat O No  15. During this emergency department visit, did you have a blood test, x-ray, or any other test?
<ul> <li>9. Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for?</li> <li>Yes, definitely</li> <li>Yes, somewhat</li> <li>No</li> </ul>	<ul> <li>○ Yes</li> <li>○ No → If No, go to Question 17</li> <li>16. During this emergency department visit, did doctors and nurses give you as much information as you wanted about the results of these tests?</li> </ul>
<ul> <li>10. Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand?</li> <li>Yes, definitely</li> <li>Yes, somewhat</li> <li>No</li> </ul>	<ul> <li>Yes, definitely</li> <li>Yes, somewhat</li> <li>No</li> </ul> PEOPLE WHO TOOK CARE OF YOU 17. During this emergency department visit,
<ul> <li>11. During this emergency department visit, did you have any pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 15</li> <li>12. During this emergency department visit, did the doctors and nurses try to help reduce your pain?</li> <li>○ Yes, definitely</li> <li>○ Yes, somewhat</li> <li>○ No</li> </ul>	how often did <u>nurses introduce themselves</u> to you?  O Never O Sometimes O Usually O Always
O No	

<ul> <li>18. During this emergency department visit, how often did <u>nurses</u> treat you with <u>courtesy and respect</u>?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>23. During this emergency department visit, how often did doctors listen carefully to you?</li> <li>Never</li> <li>Sometimes</li> <li>Usually</li> <li>Always</li> </ul>
<ul> <li>19. During this emergency department visit, how often did <u>nurses listen carefully to you?</u></li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>24. During this emergency department visit, how often did doctors explain things in a way you could understand?</li> <li>Never</li> <li>Sometimes</li> <li>Usually</li> <li>Always</li> </ul>
<ul> <li>20. During this emergency department visit, how often did <u>nurses explain things</u> in a way you could understand?</li> <li>○ Never</li> <li>○ Sometimes</li> <li>○ Usually</li> <li>○ Always</li> <li>21. During this emergency department visit, how often did <u>doctors introduce</u> themselves to you?</li> <li>○ Never</li> <li>○ Sometimes</li> <li>○ Usually</li> <li>○ Always</li> </ul>	LEAVING THE EMERGENCY DEPARTMENT  25. Before you left the emergency department, did a doctor or nurse tell you that you should take any new medicines that you had not taken before?  ○ Yes ○ No → If No, go to Question 27  26. Before you left the emergency department, did a doctor or nurse tell you what the new medicines were for?  ○ Yes, definitely ○ Yes, somewhat ○ No
<ul> <li>22. During this emergency department visit, how often did doctors treat you with courtesy and respect?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>27. Before you left the emergency department, did a doctor or nurse give you a prescription for medicine to treat pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 29</li> </ul>

28. Before giving you the prescription for	OVERALL EXPERIENCE
pain medicine, did a doctor or nurse describe possible side effects in a way you could understand?  O Yes  O No	32. Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency department visit?
<ul> <li>29. Before you left the emergency department, did someone discuss with you whether you needed follow-up care?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 31</li> </ul>	<ul> <li>O Worst care possible</li> <li>1</li> <li>2</li> <li>3</li> <li>4</li> </ul>
<ul><li>30. Before you left the emergency department, did someone ask if you would be able to get this follow-up care?</li><li>Yes</li><li>No</li></ul>	<ul><li>5</li><li>6</li><li>7</li><li>8</li><li>9</li></ul>
<ul> <li>31. Before you left the emergency department, did someone talk with you about how to treat pain after you got home?</li> <li>O Yes</li> <li>O No</li> <li>O I did not need to treat pain after I got</li> </ul>	<ul> <li>O 10 Best care possible</li> <li>33. Would you recommend this emergency department to your friends and family?</li> <li>O Definitely no</li> <li>O Probably no</li> <li>O Probably yes</li> </ul>
home from the emergency department	O Definitely yes  YOUR HEALTH CARE
	34. In the last 6 months, how many times have you visited any emergency department to get care for yourself? Please include the emergency department visit you have been answering questions about in this survey.  O 1 time O 2 times O 3 times O 4 times O 5 to 9 times O 10 or more times

	pla up, get	here a doctor's office, clinic, or other ce you usually go if you need a checkwant advice about a health problem, or sick or hurt?  Yes  No → If No, go to Question 37
36.	you oth	w many times in the <u>last 6 months</u> did a visit that doctor's office, clinic, or er place to get care or advice about ar health?
	0	None
	0	1 time
	0	2 times
	0	3 times
	0	4 times
	0	5 to 9 times
	0	10 or more times
		ABOUT YOU
37.		general, how would you rate your erall health?
	0	Excellent
	0	Very good
	0	Good
	0	Fair
	$\circ$	Poor

35. Not counting the emergency department,

#### 38. EQ-5D

(Note to interviewer: please read the following to the respondent)

We are trying to find out what you think about your health. I will first ask you some simple questions about your health TODAY. I will then ask you to rate your health on a measuring scale. I will explain what to do as I go along but please interrupt me if you do not understand something or if things are not clear to you. Please also remember that there are no right or wrong answers. We are interested here only in your personal view.

First I am going to read out some questions. Each question has a choice of five answers. Please tell me which answer best describes your health TODAY. Do not choose more than one answer in each group of questions.

(Note to interviewer: it may be necessary to remind the respondent regularly that the timeframe is TODAY. It may also be necessary to repeat the questions verbatim.)

#### **MOBILITY**

First I'd like to ask you about mobility. Would you say that:

- O <sup>1</sup> You have no problems in walking about?
- O <sup>2</sup> You have slight problems in walking about?
- O <sup>3</sup> You have moderate problems in walking about?
- O <sup>4</sup> You have severe problems in walking about?
- O <sup>5</sup> You are unable to walk about?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### SELF-CARE

Next I'd like to ask you about self-care. Would you say that:

- O <sup>1</sup> You have no problems washing or dressing yourself?
- O <sup>2</sup> You have slight problems washing or dressing yourself?
- O <sup>3</sup> You have moderate problems washing or dressing yourself?
- O <sup>4</sup> You have severe problems washing or dressing yourself?
- O <sup>5</sup> You are unable to wash or dress yourself?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### **USUAL ACTIVITIES**

Next I'd like to ask you about your usual activities, for example work, study, housework, family or leisure activities. Would you say that:

- O <sup>1</sup> You have no problems doing your usual activities?
- O <sup>2</sup> You have slight problems doing your usual activities?
- O <sup>3</sup> You have moderate problems doing your usual activities?
- O <sup>4</sup> You have severe problems doing your usual activities?
- O <sup>5</sup> You are unable to do your usual activities?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### PAIN / DISCOMFORT

Next I'd like to ask you about pain or discomfort. Would you say that:

- O <sup>1</sup> You have no pain or discomfort?
- O <sup>2</sup> You have slight pain or discomfort?
- O <sup>3</sup> You have moderate pain or discomfort?
- O <sup>4</sup> You have severe pain or discomfort?
- O <sup>5</sup> You have extreme pain or discomfort?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### ANXIETY / DEPRESSION

Finally I'd like to ask you about anxiety or depression. Would you say that:

- O <sup>1</sup> You are not anxious or depressed?
- O <sup>2</sup> You are slightly anxious or depressed?
- O <sup>3</sup> You are moderately anxious or depressed?
- O <sup>4</sup> You are severely anxious or depressed?
- O <sup>5</sup> You are extremely anxious or depressed?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

### 39. EQ VAS

Now, I would like to ask you to say how good or bad your health is TODAY.

I'd like you to try to picture in your mind a scale that looks rather like a thermometer. Can you do that? The best health you can imagine is marked 100 (one hundred) at the top of the scale and the worst health you can imagine is marked 0 (zero) at the bottom.

#### **EQ VAS: TASK**

I would now like you to tell me the point on this scale where you would put your health today

	aj.	
	nt ii	o interviewer: mark the scale at the ndicating the respondent's 'health
40.	Wł	nat is your age?
	0	18 to 24
	0	25 to 34
	0	35 to 44
	0	45 to 54
	0	55 to 64
	0	65 to 74
	0	75 or older
41.	Are	e you male or female?
	0	Male
	0	Female
42.	hor	nat language do you <u>mainly</u> speak at ne?
		English
	O	Other:
43.	Wł	nat is the highest level of schooling that

- you have completed?
  - O Grade school or some high school
  - O Completed high school
  - O Post-secondary technical school (including Trade School)
  - O Some university or college
  - O Completed college diploma
  - O Completed university degree
  - O Post-grad degree (Masters or PhD)

- 44. People living in Canada come from many different cultural and racial backgrounds. Are you ...?
  - O White/Caucasian
  - O Aboriginal/Native Canadian/Inuit/Metis
  - O Chinese
  - O Latin American
  - O Black
  - O Asian
  - O Other:
- 45. Which one of the following categories best describes the total annual income, before taxes, of all members of your household?
  - O Less than \$25,000
  - O \$25,000 to just under \$50,000
  - O \$50,000 to just under \$75,000
  - O \$75,000 to just under \$100,000
  - O \$100,000 to just under \$150,000
  - O \$150,000 to just under \$200,000
  - O \$200,000 or more
- 46. Over the next two years, the Health Quality Council of Alberta will be conducting future evaluations of health care quality issues. This may involve, for instance, focus groups or interviews.

Would you be interested in participating in such activities?

- O Yes
- O No

NOTE: Auto fill their full name and phone number from the contact data of PRA.

ID#		
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# **EDPEC Survey—Admitted Stand Alone Instrument**

# GOING TO THE EMERGENCY DEPARTMENT

- 1. Thinking about this visit, what was the main reason why you went to the emergency department?
  - O An accident or injury
  - O A new health problem
  - O An ongoing health condition or concern
- Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office? FILL-IN ALL THAT APPLY
  - O The emergency department was the only choice available at the time.
  - O The emergency department was the most convenient place to go.
  - O I (we) thought the emergency department was the <u>best place</u> for my medical problem.
  - O I <u>was told</u> to go to the emergency department rather than somewhere else.

0	Other:			

- 3. For this visit, did you go to the emergency department in an ambulance?
  - O Yes
  - O No

- 4. When you first arrived at the emergency department, how long was it before someone talked to you about the reason why you were there?
  - O Less than 5 minutes
  - O 5 to 15 minutes
  - O More than 15 minutes
- 5. Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency department, how important was it for you to get care right away?
  - O 0 Not at all important
  - 0 1
  - 0 2
  - 0 3
  - 0 4
  - 0 5
  - 0 6
  - 0 7
  - 0 8
  - 0 9
  - O 10 Extremely important

# DURING YOUR EMERGENCY DEPARTMENT VISIT

- 6. During this emergency department visit, did you get care within 30 minutes of getting to the emergency department?
  - O Yes
  - O No

<ul> <li>7. During this emergency department visit, did the doctors or nurses ask about <u>all</u> of the medicines you were taking?</li> <li>O Yes, definitely</li> </ul>	<ul> <li>13. During this emergency department visit, did you get medicine for pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 15</li> </ul>
<ul><li>Yes, somewhat</li><li>No</li></ul>	14. Before giving you pain medicine, did the doctors and nurses describe possible side
<ul> <li>8. During this emergency department visit, were you given any medicine that you had not taken before?</li> <li>O Yes</li> <li>O Don't Know</li> </ul>	effects in a way you could understand?  O Yes, definitely O Yes, somewhat O No  15. During this emergency department visit,
<ul> <li>○ No → If No, go to Question 11</li> <li>9. Before giving you any new medicine,</li> </ul>	did you have a blood test, x-ray, or any other test?
did the doctors or nurses tell you what	O Yes
the medicine was for?	$\bigcirc$ No $\rightarrow$ If No, go to Question 17
<ul><li>Yes, definitely</li><li>Yes, somewhat</li><li>No</li></ul>	16. During this emergency department visit, did doctors and nurses give you as much information as you wanted about the
10. Before giving you any new medicine,	results of these tests?
did the doctors or nurses describe	O Yes, definitely
possible side effects to you in a way you could understand?	<ul><li>Yes, somewhat</li><li>No</li></ul>
O Yes, definitely	O NO
<ul><li>Yes, somewhat</li><li>No</li></ul>	PEOPLE WHO TOOK CARE OF YOU IN THE EMERGENCY DEPARTMENT
<ul> <li>11. During this emergency department visit, did you have any pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 15</li> </ul>	17. During this emergency department visit, how often did <u>nurses introduce</u> themselves to you?  O Never
12. During this emergency department visit, did the doctors and nurses try to help reduce your pain?	O Sometimes O Usually O Always
O Yes, definitely	
O Yes, somewhat	
O No	

<ul> <li>18. During this emergency department visit, how often did <u>nurses</u> treat you with <u>courtesy and respect</u>?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>23. During this emergency department visit, how often did doctors listen carefully to you?</li> <li>Never</li> <li>Sometimes</li> <li>Usually</li> <li>Always</li> </ul>
<ul> <li>19. During this emergency department visit, how often did <u>nurses listen carefully to you?</u></li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>24. During this emergency department visit, how often did doctors explain things in a way you could understand?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>
<ul> <li>20. During this emergency department visit, how often did <u>nurses explain things</u> in a way you could understand?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	LEAVING THE EMERGENCY DEPARTMENT  25. Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?
<ul> <li>21. During this emergency department visit, how often did doctors introduce themselves to you?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>Yes, definitely</li> <li>Yes, somewhat</li> <li>No</li> <li>26. Before you left the emergency department, did you understand why you needed to stay in the hospital?</li> <li>Yes, definitely</li> </ul>
<ul> <li>22. During this emergency department visit, how often did doctors treat you with courtesy and respect?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul><li>Yes, somewhat</li><li>No</li></ul>

# **OVERALL EXPERIENCE**

27. Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency department visit?	<ul> <li>place you usually go if you need a check-up, want advice about a health problem, or get sick or hurt?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 32</li> </ul>
O 0 Worst care possible	
O 1 O 2 O 3	31. How many times in the <u>last 6 months</u> did you visit that doctor's office, clinic, health center, or other place to get care or advice about your health?
O 4	O None
O 5	O 1 time
O 6	O 2 times
0 7	O 3 times
O 8	O 4 times
O 9	O 5 to 9 times
O 10 Best care possible	O 10 or more times
28. Would you recommend this emergency department to your friends and family?	ABOUT YOU
O Definitely no	32. In general, how would you rate your
O Probably no	overall health?
O Probably yes	O Excellent
O Definitely yes	O Very good
YOUR HEALTH CARE	O Good
TOOK HEALTH CARE	O Fair
29. In the <u>last 6 months</u> , how many times have you visited <u>any</u> emergency department to get care for yourself? Please include the emergency department visit you have been answering questions about in this survey.	O Poor
O 1 time	
O 2 times	
O 3 times	
O 3 tillies	
O 4 times	

30. Not counting the emergency department, is there a doctor's office, clinic, or other

#### 33. EQ-5D

(Note to interviewer: please read the following to the respondent)

We are trying to find out what you think about your health. I will first ask you some simple questions about your health TODAY. I will then ask you to rate your health on a measuring scale. I will explain what to do as I go along but please interrupt me if you do not understand something or if things are not clear to you. Please also remember that there are no right or wrong answers. We are interested here only in your personal view.

First I am going to read out some questions. Each question has a choice of five answers. Please tell me which answer best describes your health TODAY. Do not choose more than one answer in each group of questions.

(Note to interviewer: it may be necessary to remind the respondent regularly that the timeframe is TODAY. It may also be necessary to repeat the questions verbatim.)

#### **MOBILITY**

First I'd like to ask you about mobility. Would you say that:

- O <sup>1</sup> You have no problems in walking about?
- O <sup>2</sup> You have slight problems in walking about?
- O <sup>3</sup> You have moderate problems in walking about?
- O <sup>4</sup> You have severe problems in walking about?
- O <sup>5</sup> You are unable to walk about?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### **SELF-CARE**

Next I'd like to ask you about self-care. Would you say that:

- O <sup>1</sup> You have no problems washing or dressing yourself?
- O <sup>2</sup> You have slight problems washing or dressing yourself?
- O <sup>3</sup> You have moderate problems washing or dressing yourself?
- O <sup>4</sup> You have severe problems washing or dressing yourself?
- O <sup>5</sup> You are unable to wash or dress yourself?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### **USUAL ACTIVITIES**

Next I'd like to ask you about your usual activities, for example work, study, housework, family or leisure activities. Would you say that:

- O <sup>1</sup> You have no problems doing your usual activities?
- O <sup>2</sup> You have slight problems doing your usual activities?
- O <sup>3</sup> You have moderate problems doing your usual activities?
- O <sup>4</sup> You have severe problems doing your usual activities?
- O <sup>5</sup> You are unable to do your usual activities?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### PAIN / DISCOMFORT

Next I'd like to ask you about pain or discomfort. Would you say that:

- O <sup>1</sup> You have no pain or discomfort?
- O <sup>2</sup> You have slight pain or discomfort?
- O <sup>3</sup> You have moderate pain or discomfort?
- O <sup>4</sup> You have severe pain or discomfort?
- O <sup>5</sup> You have extreme pain or discomfort?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### ANXIETY / DEPRESSION

Finally I'd like to ask you about anxiety or depression. Would you say that:

- O <sup>1</sup> You are not anxious or depressed?
- O <sup>2</sup> You are slightly anxious or depressed?
- O <sup>3</sup> You are moderately anxious or depressed?
- O <sup>4</sup> You are severely anxious or depressed?
- O <sup>5</sup> You are extremely anxious or depressed?

(Note to interviewer: mark the appropriate box on the EQ-5D questionnaire)

#### 34. EQ VAS

Now, I would like to ask you to say how good or bad your health is TODAY.

I'd like you to try to picture in your mind a scale that looks rather like a thermometer. Can you do that? The best health you can imagine is marked 100 (one hundred) at the top of the scale and the worst health you can imagine is marked 0 (zero) at the bottom.

#### **EQ VAS: TASK**

I would now like you to tell me the point on this scale where you would put your health today.

(Note to interviewer: mark the scale at the point indicating the respondent's 'health today')

- 35. What is your age?
  - O 18 to 24
  - O 25 to 34
  - O 35 to 44
  - O 45 to 54
  - O 55 to 64
  - O 65 to 74
  - O 75 or older
- 36. Are you male or female?
  - O Male
  - O Female
- 37. What language do you <u>mainly</u> speak at home?
  - O English

_	0.1	
$\cap$	Other	

- 38. What is the highest level of schooling that you have completed?
  - O Grade school or some high school
  - O Completed high school
  - O Post-secondary technical school (including Trade School)
  - O Some university or college
  - O Completed college diploma
  - O Completed university degree
  - O Post-grad degree (Masters or PhD)

39. People living in Canada come from many different cultural and racial backgrounds. Are you?				
O White/Caucasian				
0	Aboriginal/Native Canadian/Inuit/Metis			
0	Chinese			
0	Latin American			
0	Black			
0	Asian			

- 40. Which one of the following categories best describes the total annual income, before taxes, of all members of your household?
  - O Less than \$25,000

O Other: \_\_

- O \$25,000 to just under \$50,000
- O \$50,000 to just under \$75,000
- O \$75,000 to just under \$100,000
- O \$100,000 to just under \$150,000
- O \$150,000 to just under \$200,000
- O \$200,000 or more

41. Over the next two years, the Health Quality Council of Alberta will be conducting future evaluations of health care quality issues. This may involve, for instance, focus groups or interviews.

Would you be interested in participating in such activities?

- O Yes
- O No

NOTE: Auto fill their full name and phone number from the contact data of PRA.

ID#	
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# EDPEC Survey—Discharged to Community Instrument—Children's Hospital Version

# GOING TO THE EMERGENCY DEPARTMENT

- 1. Thinking about this visit, what was the main reason why your child went to the emergency department?
  - O An accident or injury
  - O A new health problem
  - O An ongoing health condition or concern
- 2. Why did you choose to take your child to the emergency department, instead of somewhere else such as a doctor's office? FILL-IN ALL THAT APPLY
  - O The emergency department was the only choice available <u>at the time</u>.
  - O The emergency department was the most convenient place to go.
  - O I (we) thought the emergency department was the <u>best place</u> for my child's medical problem.
  - O I <u>was told</u> to go to the emergency department rather than somewhere else.

$\overline{}$	Other:			
$\cup$	Ouici.			

- 3. For this visit, did your child go to the emergency department in an ambulance?
  - O Yes
  - O No

- 4. When you first arrived at the emergency department, how long was it before someone talked to you about the reason why your child was there?
  - O Less than 5 minutes
  - O 5 to 15 minutes
  - O More than 15 minutes
- 5. Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when your child first arrived at the emergency department, how important was it for your child to get care right away?
  - O Not at all important
  - 0 1
  - 0 2
  - 0 3
  - 0 4
  - 0 5
  - 0 6
  - 0 7
  - 0 8
  - 0 9
  - O 10 Extremely important

# DURING YOUR CHILD'S EMERGENCY DEPARTMENT VISIT

6. During this emergency department visit, did your child get care within 30 minutes of getting to the emergency department?

35

- O Yes
- O No

<ul><li>7. During this emergency department visit, did the doctors or nurses ask about <u>all</u> of the medicines your child was taking?</li><li>O Yes, definitely</li></ul>	<ul> <li>13. During this emergency department visit, did your child get medicine for pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 15</li> </ul>
<ul><li>Yes, somewhat</li><li>No</li></ul>	14. Before giving your child pain medicine, did the doctors and nurses describe
8. During this emergency department visit, was your child given any medicine that they had not taken before?	possible side effects in a way you could understand?  O Yes, definitely
O Yes	O Yes, somewhat
O Don't Know	O No
<ul> <li>O No → <i>If No, go to Question 11</i></li> <li>9. Before giving your child any new medicine, did the doctors or nurses tell</li> </ul>	15. During this emergency department visit, did your child have a blood test, x-ray, or any other test?
you what the medicine was for?	O Yes
O Yes, definitely	$\bigcirc$ No $\rightarrow$ If No, go to Question 17
O Yes, somewhat O No	16. During this emergency department visit, did doctors and nurses give you as much information as you wanted about the
10. Before giving your child any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand?	results of these tests?  O Yes, definitely O Yes, somewhat
O Yes, definitely	O No
<ul><li>Yes, somewhat</li><li>No</li></ul>	PEOPLE WHO TOOK CARE OF YOUR CHILD
<ul> <li>11. During this emergency department visit, did your child have any pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 15</li> </ul>	<ul> <li>17. During this emergency department visit, how often did your child's <u>nurses</u> introduce themselves to you?</li> <li>O Never</li> </ul>
<ul><li>12. During this emergency department visit, did the doctors and nurses try to help reduce your child's pain?</li><li>O Yes, definitely</li></ul>	<ul><li>Sometimes</li><li>Usually</li><li>Always</li></ul>
O Yes, somewhat	
O No	

<ul> <li>18. During this emergency department visit, how often did your child's <u>nurses</u> treat you with <u>courtesy and respect</u>?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	23. During this emergency department visit, how often did your child's doctors listen carefully to you?  O Never O Sometimes O Usually O Always
<ul> <li>19. During this emergency department visit, how often did your child's <u>nurses listen carefully to you?</u></li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	24. During this emergency department visit, how often did your child's doctors explain things in a way you could understand?  O Never O Sometimes O Usually
20. During this emergency department visit, how often did your child's <u>nurses</u> explain things in a way you could understand?	O Always  LEAVING THE EMERGENCY  DEPARTMENT
<ul><li>Never</li><li>Sometimes</li><li>Usually</li><li>Always</li></ul>	25. Before your child left the emergency department, did a doctor or nurse tell you that your child should take any new medicines that they had not taken before?
<ul> <li>21. During this emergency department visit, how often did your child's doctors introduce themselves to you?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>○ Yes</li> <li>○ No → If No, go to Question 27</li> <li>26. Before your child left the emergency department, did a doctor or nurse tell you what the new medicines were for?</li> <li>○ Yes, definitely</li> <li>○ Yes, somewhat</li> </ul>
<ul> <li>22. During this emergency department visit, how often did your child's doctors treat you with courtesy and respect?</li> <li>O Never</li> <li>O Sometimes</li> <li>O Usually</li> <li>O Always</li> </ul>	<ul> <li>○ No</li> <li>27. Before your child left the emergency department, did a doctor or nurse give you a prescription for medicine to treat your child's pain?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 29</li> </ul>

28. Before giving you the prescription for your child's pain medicine, did a doctor	OVERALL EXPERIENCE
or nurse describe possible side effects in	32. Using any number from 0 to 10, where 0
a way you could understand?	is the worst care possible and 10 is the best care possible, what number would
O Yes	you use to rate your child's care during
O No	this emergency department visit?
29. Before your child left the emergency	O 0 Worst care possible
department, did someone discuss with	0 1
you whether your child needed follow- up care?	0 2
O Yes	0 3
$\bigcirc$ No $\rightarrow$ If No, go to Question 31	0 4
	0 5
30. Before your child left the emergency	0 6
department, did someone ask if you would be able to get this follow-up care?	0 7
O Yes	0 8
O No	0 9
	O 10 Best care possible
31. Before your child left the emergency department, did someone talk with you	33. Would you recommend this emergency
about how to treat your child's pain after	department to your friends and family?
you got home?	O Definitely no
O Yes	O Probably no
O No	O Probably yes
O I did not need to treat my child's	O Definitely yes
pain after we got home from the emergency department	ABOUT YOUR CHILD'S
emergency department	HEALTH
	34. In the <u>last 6 months</u> , how many times has your child visited <u>any</u> emergency department to get care for themselves? Please include the emergency department visit you have been answering questions about in this survey.
	O 1 time
	O 2 times
	O 3 times
	O 4 times
	O 5 to 9 times
	O 10 or more times

<ul> <li>35. Not counting the emergency department, is there a doctor's office, clinic, or other place you usually take your child if they need a check-up, you want advice about a health problem, or they get sick or hurt?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 37</li> </ul>	<ul> <li>39. Are you male or female?</li> <li> Male</li> <li> Female</li> <li>40. What language do you mainly speak at home?</li> <li> English</li> <li> Other:</li> </ul>
<ul> <li>36. How many times in the last 6 months did your child visit that doctor's office, clinic, or other place to get care or advice about their health?</li> <li>O None</li> <li>O 1 time</li> <li>O 2 times</li> <li>O 3 times</li> <li>O 4 times</li> <li>O 5 to 9 times</li> <li>O 10 or more times</li> </ul>	41. What is the highest level of schooling that you have completed?  O Grade school or some high school  Completed high school  Post-secondary technical school (including Trade School)  Some university or college  Completed college diploma  Completed university degree  Post-grad degree (Masters or PhD)
37. In general, how would you rate your child's overall health?  O Excellent O Very good O Good O Fair O Poor  ABOUT YOU (PARENT OR GUARDIAN)	<ul> <li>42. People living in Canada come from many different cultural and racial backgrounds. Are you?</li> <li> White/Caucasian</li> <li> Aboriginal/Native Canadian/Inuit/Metis</li> <li> Chinese</li> <li> Latin American</li> <li> Black</li> <li> Asian</li> <li> Other:</li> </ul>
38. What is your age?  O 18 to 24  O 25 to 34  O 35 to 44  O 45 to 54	o due.

55 to 6465 to 7475 or older

- 43. Which one of the following categories best describes the total annual income, before taxes, of all members of your household?
  - O Less than \$25,000
  - O \$25,000 to just under \$50,000
  - O \$50,000 to just under \$75,000
  - O \$75,000 to just under \$100,000
  - O \$100,000 to just under \$150,000
  - O \$150,000 to just under \$200,000
  - O \$200,000 or more
- 44. Over the next two years, the Health Quality Council of Alberta will be conducting future evaluations of health care quality issues. This may involve, for instance, focus groups or interviews.

Would you be interested in participating in such activities?

- O Yes
- O No

NOTE: Auto fill their phone number from the contact data of PRA.

45. Can you please tell me your full name? [INTERVIEWER: Please have respondent confirm spelling of first and last name - even for what seems an "easy" name like "Carol Smith" which could be spelled "Carol Smyth, Karyl Smythe, etc.]

FIRST Name:	
SURNAME/LAST Name:	

ID#		
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# EDPEC Survey—Admitted Stand Alone Instrument—Children's Hospital Version

## GOING TO THE EMERGENCY DEPARTMENT

- 1. Thinking about this visit, what was the main reason why your child went to the emergency department?
  - O An accident or injury
  - O A new health problem
  - O An ongoing health condition or concern
- 2. Why did you choose to take your child to the emergency department, instead of somewhere else such as a doctor's office? FILL-IN ALL THAT APPLY
  - O The emergency department was the only choice available <u>at the time</u>.
  - O The emergency department was the most convenient place to go.
  - O I (we) thought the emergency department was the <u>best place</u> for my child's medical problem.
  - O I <u>was told</u> to go to the emergency department rather than somewhere else.

0	Other:			

- 3. For this visit, did your child go to the emergency department in an ambulance?
  - O Yes
  - O No

- 4. When you first arrived at the emergency department, how long was it before someone talked to you about the reason why your child was there?
  - O Less than 5 minutes
  - O 5 to 15 minutes
  - O More than 15 minutes
- 5. Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when your child first arrived at the emergency department, how important was it for your child to get care right away?
  - O Not at all important
  - 0 1
  - 0 2
  - 0 3
  - 0 4
  - 0 5
  - 0 6
  - 0 7
  - 0 8
  - 0 9
  - O 10 Extremely important

### DURING YOUR CHILD'S EMERGENCY DEPARTMENT VISIT

- 6. During this emergency department visit, did your child get care within 30 minutes of getting to the emergency department?
  - O Yes
  - O No

7.	During this emergency department visit, did the doctors or nurses ask about <u>all</u> of the medicines your child was taking?	<ul><li>13. During this emergency department visit, did your child get medicine for pain?</li><li>Yes</li></ul>		
	O Yes, definitely	$\bigcirc$ No $\rightarrow$ If No, go to Question 15		
	<ul><li>Yes, somewhat</li><li>No</li></ul>	14. Before giving your child pain medicine, did the doctors and nurses describe		
8.	During this emergency department visit, was your child given any medicine that	possible side effects in a way you could understand?		
	they had not taken before?	O Yes, definitely		
	O Yes	O Yes, somewhat		
	O Don't Know	O No		
9.	O No $\rightarrow$ <i>If No, go to Question 11</i> Before giving your child any new	15. During this emergency department visit, did your child have a blood test, x-ray,		
	medicine, did the doctors or nurses tell	or any other test?		
	you what the medicine was for?	O Yes		
	O Yes, definitely	$\bigcirc$ No $\rightarrow$ If No, go to Question 17		
	O Yes, somewhat	16. During this emergency department visit,		
	O No	did doctors and nurses give you as much		
10. Before giving your child any new medicine, did the doctors or nurses		information as you wanted about the results of these tests?		
	describe possible side effects to you in a	O Yes, definitely		
	way you could understand?	O Yes, somewhat		
	O Yes, definitely	O No		
	O Yes, somewhat	PEOPLE WHO TOOK CARE OF		
	O No	YOUR CHILD IN THE		
11	. During this emergency department visit,	EMERGENCY DEPARTMENT		
11.	did your child have any pain?	DIVIDENCE NOT DELIVED VI		
	O Yes	17. During this emergency department visit,		
	$\bigcirc$ No $\rightarrow$ If No, go to Question 15	how often did your child's <u>nurses</u>		
	O 100 719 110, go to Question 13	introduce themselves to you?		
12.	During this emergency department visit,	O Never		
	did the doctors and nurses try to help	O Sometimes		
	reduce your child's pain?	O Usually		
	O Yes, definitely	O Always		
	O Yes, somewhat			
	O No			

18. During this emergency department visit, how often did your child's <u>nurses</u> treat you with <u>courtesy and respect</u> ?	23. During this emergency department visit, how often did your child's doctors listen carefully to you?
O Never	O Never
O Sometimes	O Sometimes
O Usually	O Usually
O Always	O Always
<ul><li>19. During this emergency department visit, how often did your child's <u>nurses listen carefully to you?</u></li><li>O Never</li></ul>	24. During this emergency department visit, how often did your child's doctors explain things in a way you could understand?
O Sometimes	O Never
O Usually	O Sometimes
O Always	O Usually
20. Dywing this amanganay department visit	O Always
20. During this emergency department visit, how often did your child's <u>nurses</u> explain things in a way you could understand?	LEAVING THE EMERGENCY DEPARTMENT
<ul><li>Never</li><li>Sometimes</li><li>Usually</li><li>Always</li></ul>	25. Once you found out your child would have to stay in the hospital, were you kept informed about how long it would be before your child went to another part of the hospital?
21. During this emergency department visit, how often did your child's <u>doctors</u> introduce themselves to you?	<ul><li>Yes, definitely</li><li>Yes, somewhat</li><li>No</li></ul>
O Never	26 Defere your skild left the emergency
O Sometimes	26. Before your child left the emergency department, did you understand why
O Usually	your child needed to stay in the hospital?
O Always	O Yes, definitely
22. During this emergency department visit, how often did your child's <u>doctors</u> treat you with <u>courtesy and respect</u> ?	<ul><li>Yes, somewhat</li><li>No</li></ul>
O Never	
O Sometimes	
O Usually	
O Always	

#### **OVERALL EXPERIENCE** 30. Not counting the emergency department,

O 10 or more times

<ul> <li>27. Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your child's care during this emergency department visit?</li> <li>O 0 Worst care possible</li> </ul>	<ul> <li>is there a doctor's office, clinic, or other place you usually take your child if they need a check-up, you want advice about a health problem, or they get sick or hurt?</li> <li>○ Yes</li> <li>○ No → If No, go to Question 32</li> </ul>
<ul><li>1</li><li>2</li><li>3</li><li>4</li></ul>	31. How many times in the <u>last 6 months</u> did your child visit that doctor's office, clinic, or other place to get care or advice about their health?
O 5	O None
0 6	O 1 time
0 7	O 2 times
0 8	O 3 times
O 9	O 4 times
O 10 Best care possible	O 5 to 9 times
28. Would you recommend this emergency	O 10 or more times
<ul><li>department to your friends and family?</li><li>O Definitely no</li></ul>	32. In general, how would you rate your child's overall health?
O Probably no	O Excellent
O Probably yes	O Very good
O Definitely yes	O Good
ABOUT YOUR CHILD'S	O Fair
HEALTH	O Poor
29. In the <u>last 6 months</u> , how many times has your child visited <u>any</u> emergency	ABOUT YOU (PARENT OR GUARDIAN)
department to get care for themselves? Please include the emergency	33. What is your age?
department visit you have been	O 18 to 24
answering questions about in this survey.	O 25 to 34
O 1 time	O 35 to 44
O 2 times	O 45 to 54
O 3 times	O 55 to 64
O 4 times	O 65 to 74
O 5 to 9 times	O 75 or older

<ul><li>34. Are you male or female?</li><li> Male</li><li> Female</li></ul>	best describes the total annual income, before taxes, of all members of your household?
<ul> <li>35. What language do you mainly speak at home?</li> <li>C English</li> <li>Other:</li> <li>36. What is the highest level of schooling that you have completed?</li> <li>Grade school or some high school</li> <li>Completed high school</li> <li>Post-secondary technical school</li> </ul>	<ul> <li>Cless than \$25,000</li> <li>\$25,000 to just under \$50,000</li> <li>\$50,000 to just under \$75,000</li> <li>\$75,000 to just under \$100,000</li> <li>\$100,000 to just under \$150,000</li> <li>\$150,000 to just under \$200,000</li> <li>\$200,000 or more</li> <li>39. Over the next two years, the Health</li> </ul>
<ul> <li>(including Trade School)</li> <li>O Some university or college</li> <li>O Completed college diploma</li> <li>O Completed university degree</li> <li>O Post-grad degree (Masters or PhD)</li> </ul>	Quality Council of Alberta will be conducting future evaluations of health care quality issues. This may involve, for instance, focus groups or interviews.  Would you be interested in participating in such activities?
<ul> <li>37. People living in Canada come from many different cultural and racial backgrounds. Are you?</li> <li> White/Caucasian</li> <li> Aboriginal/Native Canadian/Inuit/Metis</li> <li> Chinese</li> <li> Latin American</li> <li> Black</li> <li> Asian</li> <li> Other:</li> </ul>	O Yes O No  NOTE: Auto fill their phone number from the contact data of PRA.  40. Can you please tell me your full name?  [INTERVIEWER: Please have respondent confirm spelling of first and last name - even for what seems an "easy" name like "Carol Smith" which could be spelled "Carol Smyth, Karyl Smythe, etc.]  FIRST Name:  SURNAME/LAST Name:

Figure 1: Emergency department notification poster – adult sites



**Figure 2:** Emergency department notification poster – pediatric sites



#### **REFERENCES**

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<sup>&</sup>lt;sup>1</sup> Nunnally, J.C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

<sup>&</sup>lt;sup>2</sup> Provost L.P., Murray S.K. The Health Care Data Guide: Learning From Data for Improvement. San Francisco, CA: Jossey-Bass; 2011.

<sup>&</sup>lt;sup>3</sup> Wheeler D.J. Rational Sampling. Accessed from: <a href="http://www.qualitydigest.com/inside/statistics-column/070115-rational-sampling.html">http://www.qualitydigest.com/inside/statistics-column/070115-rational-sampling.html</a>.

 $<sup>^4</sup>$  Montgomery D.C. Introduction to Statistical Quality Control. 6th ed. Hoboken, NJ: John Wiley & Sons; 2009.