

British Columbia Healthcare Study



-Report-

January 27, 2009

Objectives & Methodology

OBJECTIVES

- ▶ To understand the information gaps that exist between GPs and specialists in terms of:
 - ▶ Availability of data
 - ▶ Confidence in the data
 - ▶ Patient information
- ▶ To achieve a holistic understanding of opinions through comparisons with healthcare administration

METHODOLOGY

- ▶ General practitioners (GPs), specialists and decision makers involved in the British Columbia healthcare administration answered an online survey between:
 - ▶ GPs and specialists: November 19 to 26, 2008
 - ▶ Administrators: November 25 to December 2, 2008
- ▶ The table below outlines the number of surveys that were sent out to each group and the number of completed surveys

	GPs	Specialists	Administrators
Number of surveys sent	608	362	300
Number of survey completions	100	50	30

Executive Summary

THE B.C. HEALTHCARE DELIVERY SYSTEM

- ▶ Demand for healthcare delivery in British Columbia is expected to increase over the next 5 years, mainly due to an aging population. And, while there is general consensus that the state of healthcare delivery in British Columbia needs improvement (with GPs foreseeing the greatest need for improvement), GPs and specialists do not see eye to eye with healthcare administrators when it comes to issues facing healthcare delivery in B.C.
 - ▶ According to GPs and specialists, access to care/ long wait lists are seen as the most pressing issues, while costs and funding along with a lack of personnel are the two most common issues raised by decision makers in healthcare administration
 - ▶ GPs also see a lack of physicians and specialists as a priority issue more so than healthcare administrators

- ▶ The survey found that GPs and specialists spend much of the same time doing the same things, however they face different issues which really boil down to a matter of quantity versus quality. While GPs are struggling with the pressure of increased demand and the quantity of patient information, specialists are confronted with incomplete or inaccurate patient information.
 - ▶ GPs are more likely to be
 - ▶ Disgruntled over the challenges they face in the medical profession
 - ▶ Feel ill-prepared to deal with the increased demand on their practice
 - More say the average age of their patients is increasing and they are spending less time than in the past discussing their patients' health with them
 - ▶ Feel overwhelmed by the amount of patient information

- ▶ Specialists appear to be more optimistic towards coping with the increased demand in healthcare with 2 in 5 saying they will need to invest in technology to better manage patient records

Executive Summary

- ▶ Nonetheless, it is generally agreed that patient health needs are changing - they are experiencing different and more numerous health issues than patients of the same age did in the past. Thus, it is not surprising that GPs and specialists show support for providing citizen access to their personal electronic health records (EHR), empowering them to make better decisions about their healthcare
- ▶ Despite the certainty of increased demand on healthcare, 2 in 5 healthcare administrators are unaware of the use of predictive analytics to forecast future population health needs in Canada
- ▶ While most patient records are not fully electronic and most GPs and specialists do not have patient records that are 100% electronic, there is consensus that EHR will have an impact on all aspects of healthcare

OBTAINING and USING INFORMATION FROM AREAS of the HEALTHCARE SYSTEM

- ▶ Compared to specialists, GPs have a greater need for accessing information from chronic disease registries and residential care
- ▶ GPs, specialists and healthcare administrators alike are most concerned about the quality of information they receive from government
 - ▶ Compared to GPs, specialists show greater concern about information they receive from referring physicians
- ▶ GPs and specialists feel the lack of a central registry and inability to access records in a timely manner is the biggest gap in the healthcare record system; in terms of general patient information, timeliness and communication between offices to support effective transition of care is the biggest concern

Executive Summary Cont.

ELECTRONIC HEALTH RECORD DELIVERY IN B.C.

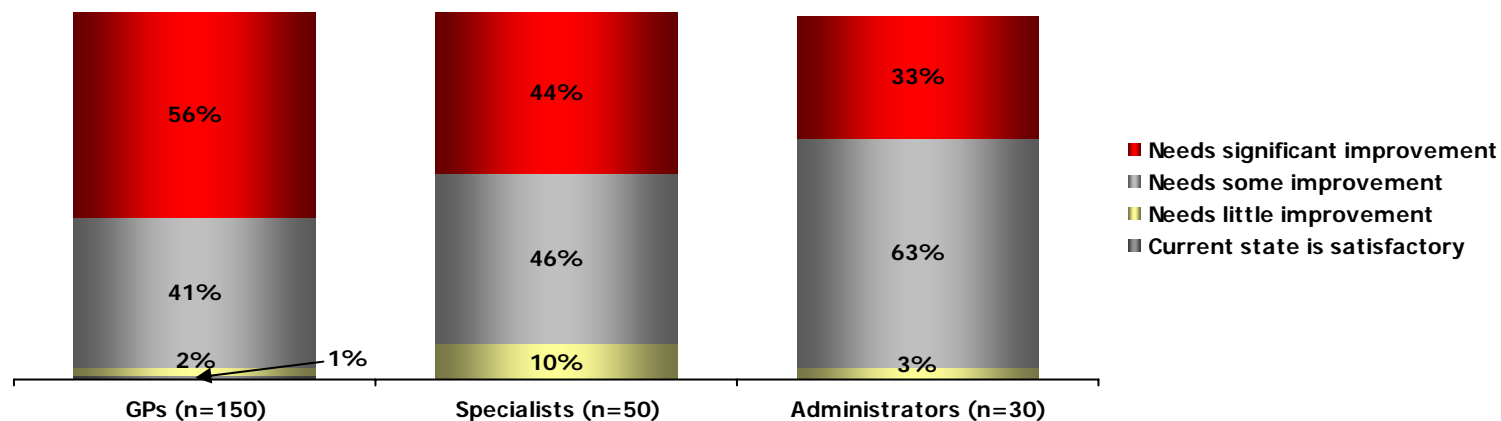
- ▶ There is consensus that the availability of IT infrastructure holds equal importance to other issues in determining the success of British Columbia's EHR delivery
- ▶ 1 in 10 healthcare administrators say the selection of a single provider would help make the transition to a provincial EHR more efficient
- ▶ However, healthcare administrators cite high costs and integration issues as the top barriers to full implementation of electronic medical records, further stating that most of B.C.'s healthcare system will not have the B.C. eHealth strategy implemented by 2010 and that GPs are not expected to adapt quickly to EHR
- ▶ Most GPs, specialists and administrators are not comfortable or are unsure that the Physician Information Technology Office (PITO) has all the resources needed to carry out its mandate

The B.C. Healthcare Delivery System

More physicians than administrators foresee a greater need for improvement of B.C. healthcare

- ▶ For the majority of GPs (56%), the current state of healthcare delivery in British Columbia needs *significant* improvement, versus 33% of healthcare decision makers who say the same

CURRENT STATE of HEALTHCARE DELIVERY IN BRITISH COLUMBIA

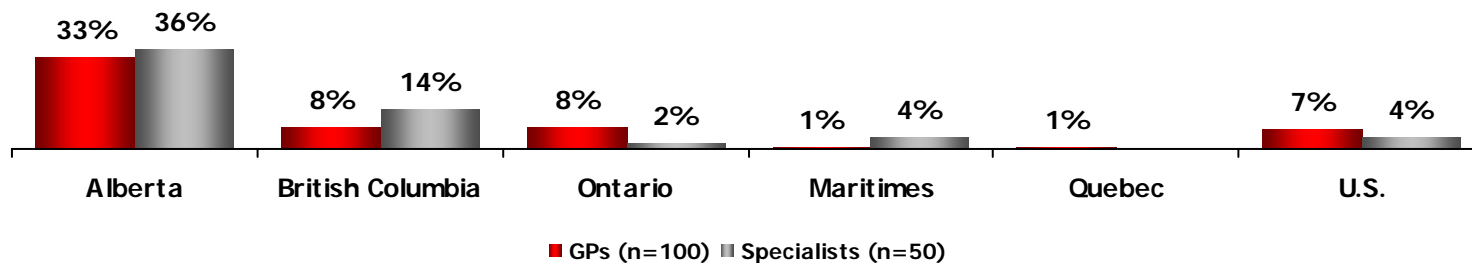


Q2. What do you think of the state of healthcare delivery in British Columbia? Base: Total respondents (n=180)

B.C. GPs and specialists most commonly believe Alberta to have the best healthcare delivery

- ▶ While 2 in 5 GPs and specialists are uncertain as to which province (or the U.S. more so than Canada) is the best in terms of quality healthcare delivery, 1 in 3 say it is Alberta
- ▶ GPs and specialists who have practiced longer than 20 years are more likely (17%) than those who have practiced for 20 years or less (11 to 20 years: 2% and 10 years or less: 8%), to say British Columbia has the best healthcare delivery

BEST PROVINCE/COUNTRY FOR QUALITY HEALTHCARE DELIVERY



Q22. In terms of quality of healthcare delivery, which province/country do you believe is the best?
Base: All GP and Specialist respondents (n=150)

GPs and specialists do not see eye to eye with healthcare administrators when it comes to issues facing healthcare delivery in B.C.

- ▶ According to B.C. GPs and specialists, access to care/long wait lists is commonly thought of as the most pressing issue facing the healthcare delivery system in British Columbia (38% each vs. administrators: 10%)
- ▶ On the other hand, costs and funding (30%) along with a lack of personnel (30%) are the two most common issues raised by healthcare decision makers
- ▶ 1 in 4 (24%) GPs also cite a lack of physicians and specialists as a priority issue versus only 7% of healthcare decision makers who say the same

Most important issue facing the healthcare delivery system in British Columbia	GPs	Specialists	Administrators
n=	150	50	30
Access to care/long wait lists	38%	38%	10%
Lack of physicians/specialists	24%	16%	7%
Cost/funding	10%	18%	30%
Lack of resources	6%	12%	3%
Too much money spent on administration	4%	--	7%
Aging population	3%	2%	--
Lack of personnel	2%	2%	30%
Poor communication between specialists and family physicians	2%	--	3%
Privatization	1%	2%	--

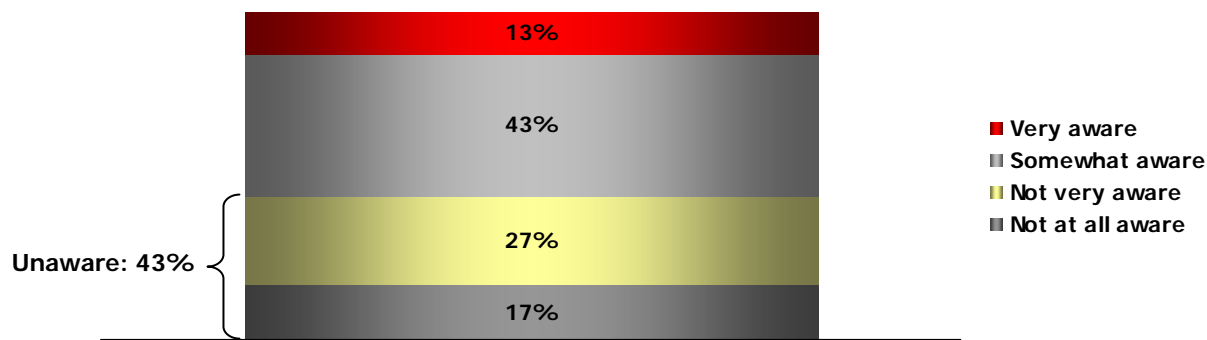
Q1. What is the most important issue facing the healthcare delivery system in the province of British Columbia?

Base: All respondents (n=180)

2 in 5 B.C. healthcare decision makers are unaware of the use of predictive analytics to forecast future population health needs

- ▶ 43% of healthcare administrators are unaware of using predictive analytics to forecast future population health needs in Canada

AWARENESS of USING PREDICTIVE ANALYTICS to FORECAST FUTURE POPULATION HEALTH NEEDS in CANADA

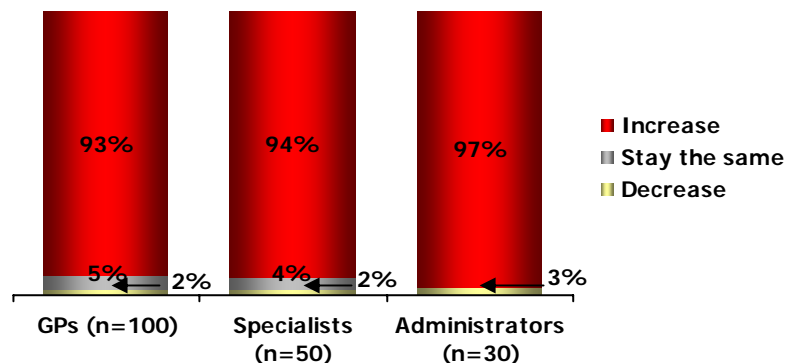


Q5 (Admin survey). How aware are you of the use of predictive analytics to forecast future population health needs in Canada?
Base: All Administrative respondents (n=30)

Demand for healthcare delivery in British Columbia is expected to increase over the next 5 years, mainly due to an aging population

- ▶ Nearly all GPs, specialists and healthcare decision makers in British Columbia perceive increased demand for healthcare delivery over the next 5 years, with the greatest demand in the area of geriatrics
- ▶ Access to GPs, hospitals and specialists falls second according to GPs and specialists, while healthcare decision makers say extended/long term care is the second area of greatest change in demand

PERCEIVED DEMAND for HEALTHCARE DELIVERY in BRITISH COLUMBIA OVER the NEXT 5 YEARS



Q3A. Do you think the demands for healthcare delivery in British Columbia will ... over the next 5 years?

Base: All respondents (n=180)

Perceived area of healthcare for greatest change in demand	GPs	Specialists	Administrators
n=	93	47	29*
Geriatrics/aging population	48%	40%	34%
Access to GPs, hospitals, specialists	30%	32%	7%
Chronic disease	4%	9%	10%
Extended care/long term care	1%	2%	21%
Cardiology	2%	2%	--
More hospital beds	3%	2%	--
Specialized care	--	--	3%
Diagnostic services	--	--	7%

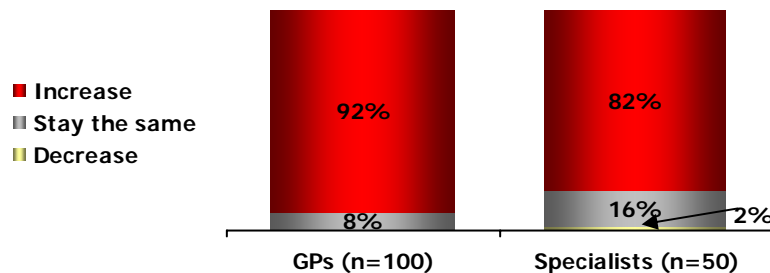
Q3B. And in what area of healthcare delivery would see the greatest change in demand?

Base: All respondents who perceive an increase in demand (n=169) *Note: Small base size n, interpret with caution

2 in 5 specialists express the need to invest in technology to better manage their patient records

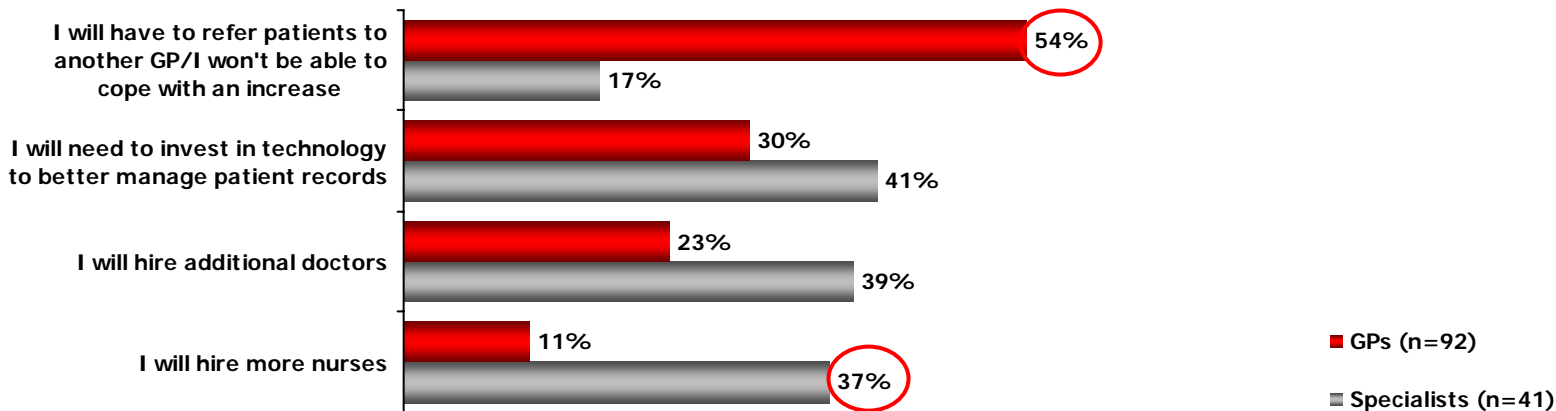
- ▶ GPs may be less prepared than specialists for increased demand on their practice
 - ▶ 92% of B.C. GPs perceive an increase in demand on their practice over the next 5 years, but most say they will not be able to handle it – needing to refer patients to other GPs (54%)
- ▶ Most specialists (82%) also perceive an increase in demand on their practice but are more likely to say they can cope

PERCEIVED DEMAND on PERSONAL PRACTICE OVER THE NEXT 5 YEARS



Q4. Do you think the demands on your practice specifically will...over the next 5 years? Base: All GP and Specialist respondents (n=150)

ACTIONS TO BE TAKEN to ACCOMMODATE INCREASED DEMAND on PERSONAL PRACTICE

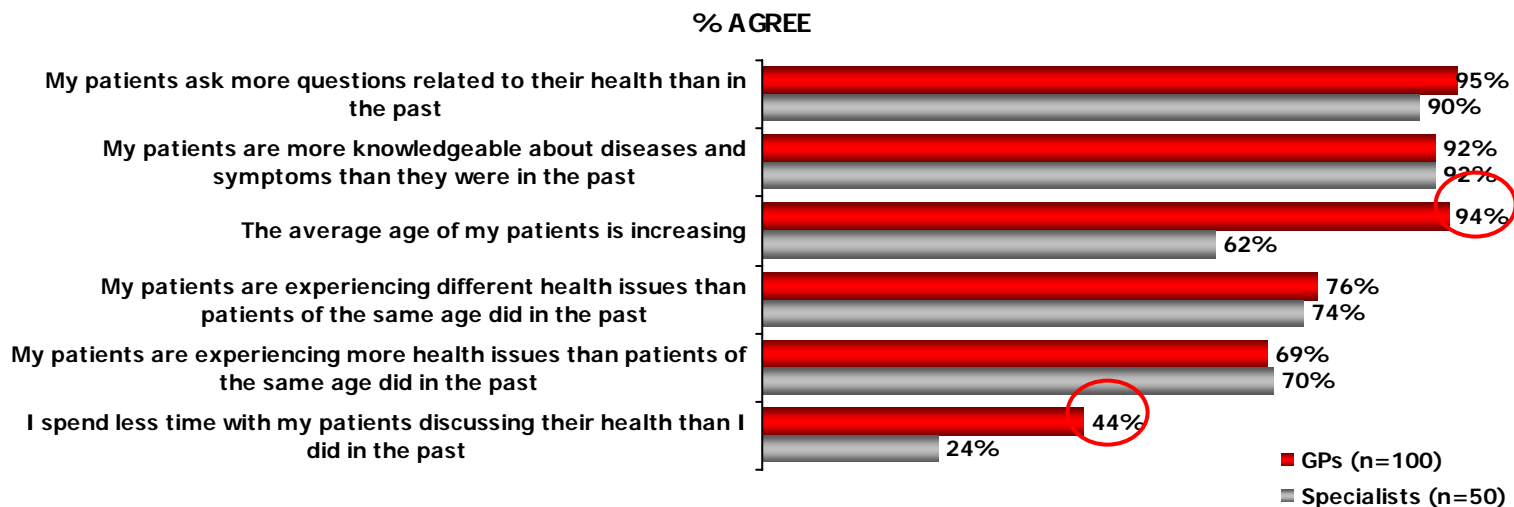


Q5. What actions will you take to accommodate the increase in your practice?
Base: All GP and Specialist respondents who perceive increased demand on their practice over the next 5 years (n=133)

Patient health needs are changing – they are experiencing different and more numerous health issues than patients of the same age did in the past

- ▶ GPs and specialists agree their patients have changed over the years – they are more inquisitive, and have different and more numerous health issues than patients of their same age experienced in the past
 - ▶ Nearly all GPs and specialists agree their patients ask more questions related to their health and are more knowledgeable about diseases and symptoms than they were in the past
 - ▶ At least 7 in 10 GPs and specialists say not only are their patients experiencing different health issues than patients of the same age did in the past, but they are experiencing more health issues as well

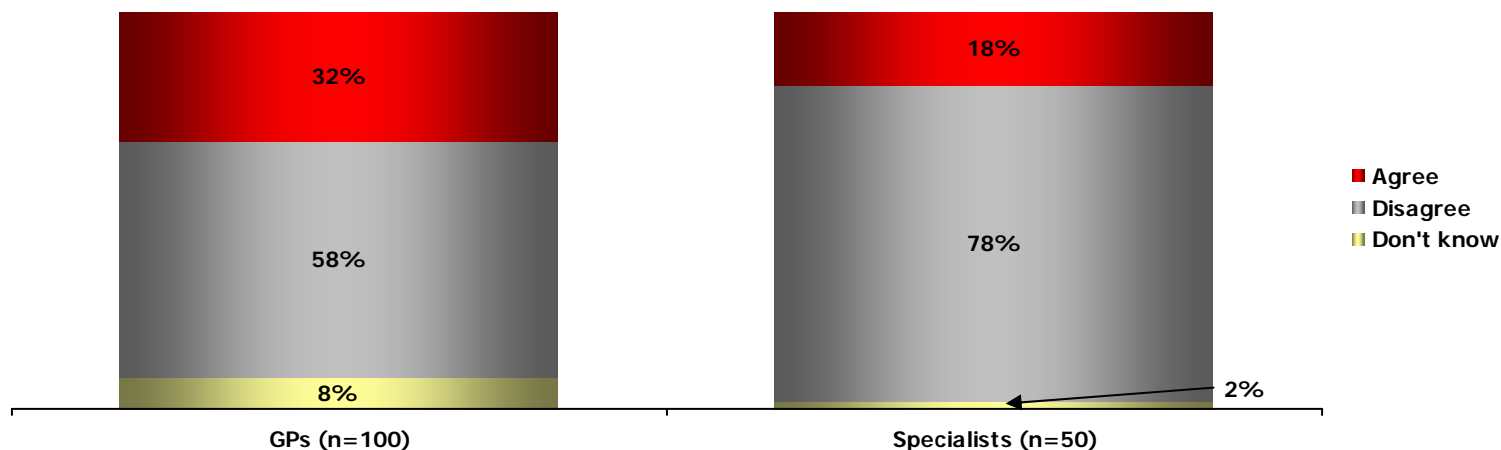
- ▶ Where GPs and specialists do differ is in the age of their patients, and the amount of time spent discussing their health issues
 - ▶ Nearly all GPs agree the average age of their patients is increasing (versus 62% of specialists), especially those who solely have their own practice (92% versus 67% of those who have both their own practice and who work in a healthcare facility)
 - ▶ 44% of GPs admit to spending less time with their patients discussing their health issues than they did in the past (versus 24% of specialists)



Q7. How much do you agree with the following statements. Base: All GP and Specialist respondents (n=150)

1 in 3 GPs would have chosen a different career if they knew the challenges they would face in the medical profession

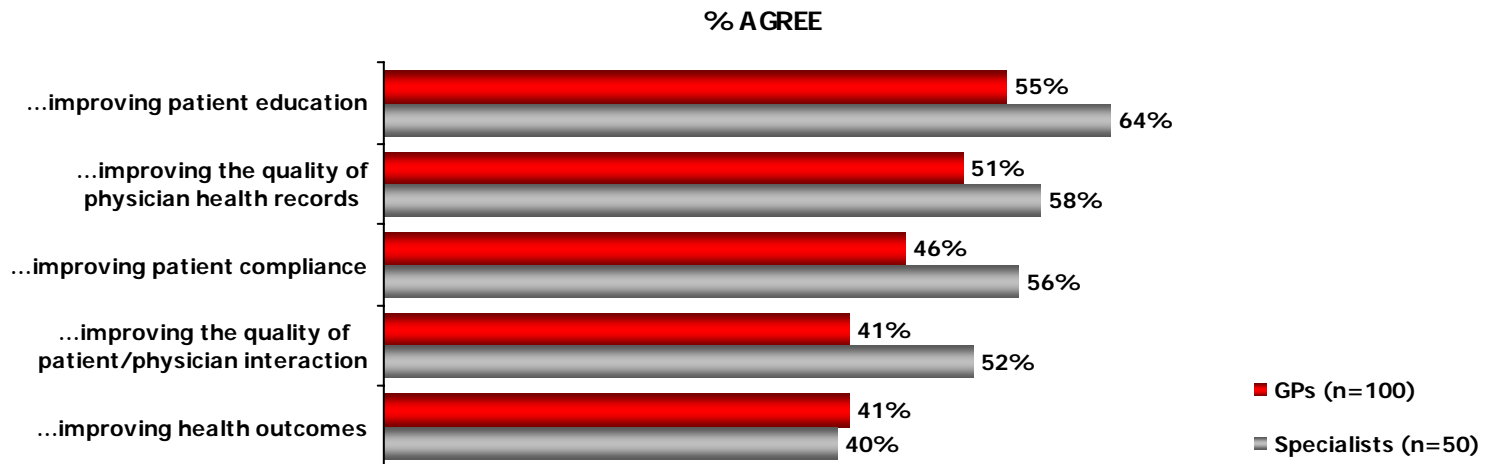
- ▶ While most GPs and specialists do not show regret for the career path they have chosen, GPs are more disgruntled than specialists over the challenges they face in the medical profession



Q24. If I knew in university what I now know about the challenges I would face in the medical profession, I would have chosen a different career. Base: All GP and Specialist respondents (n=150)

GPs and specialists show support for providing citizen access to their personal electronic health records saying patients will be empowered to make better decisions about their healthcare

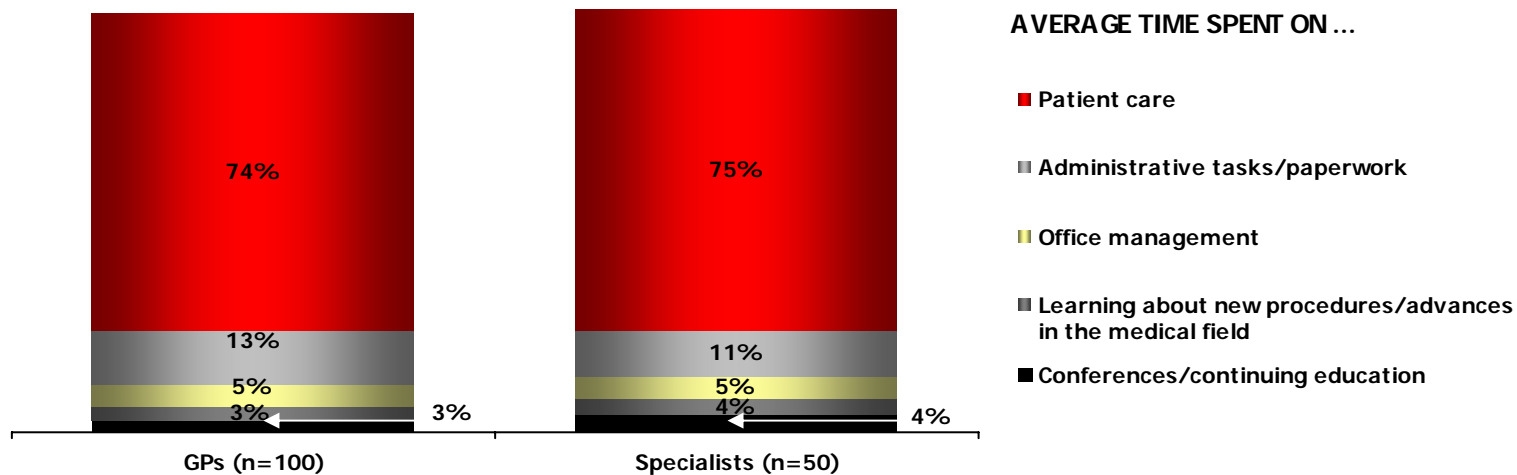
- ▶ GPs under the age of 45 are more optimistic than those aged 55 and older about the idea of empowering patients to make better healthcare decisions by providing citizen access to their personal EHR
 - ▶ Improve patient compliance (61% vs. ages 55+: 36%)
 - ▶ Improve health outcomes (52% vs. ages 55+: 19%)
 - ▶ Improve the quality of physician health records (69% vs. 38%)



Q13. How much do you agree that citizen access to their personal electronic health records will empower your patients to make better decisions about their health care through ... Base: All GP and Specialist respondents (n=150)

GPs and specialists spend a quarter of their time doing things other than patient care

- ▶ Approximately 10% of their time is spent doing administrative tasks or paperwork with the approximate 15% of remaining time being consumed by office management, learning about new developments in the medical field, attending conferences and continuing their education

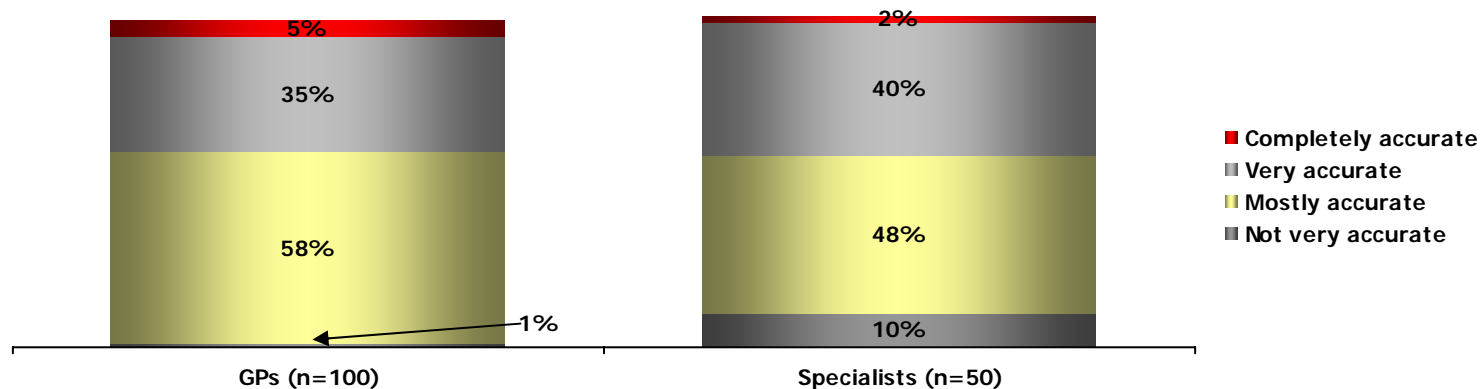


Q6. What percentage of your time do you spend on ...
 Base: All GP and Specialist respondents (n=150)

Most patient health records are not completely accurate

- ▶ Compared to GPs, fewer specialists report accurate patient health records and are more likely than GPs to say they are in fact not very accurate (10% vs. 1%)
- ▶ While most GPs say their patients' health records are mostly accurate (58%), about half of specialists say the same (48%)

ACCURACY of PATIENT HEALTH RECORDS



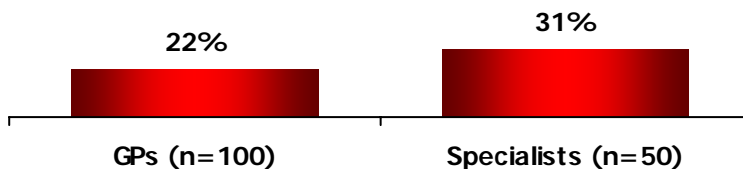
Q9. How accurate is the health record information you have on the patients you treat?

Base: All GP and Specialist respondents (n=150)

Most patient health records are not fully electronic

- ▶ On average, GPs say 22% of the health records they access regularly are fully electronic and specialists say about 31%
- ▶ It may be a while before GPs and specialists can expect to see 100% of their patients records electronic, as most do not foresee this happening by 2010; 1 in 5 say it will never happen

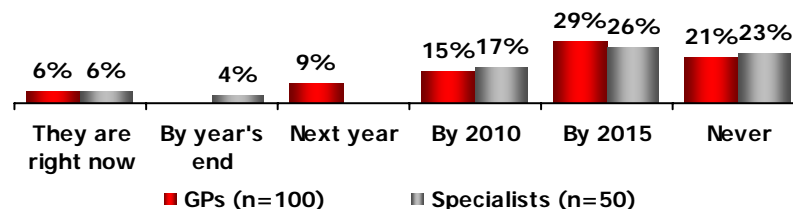
AVERAGE % of REGULARLY ACCESSED HEALTH RECORDS THAT ARE FULLY ELECTRONIC



Q18. Overall, what percentage of the health records you access regularly are fully electronic?

Base: All GP and Specialist respondents (n=150)

EXPECTED TIMEFRAME for PATIENT INFORMATION TO BE COMPLETELY ELECTRONIC

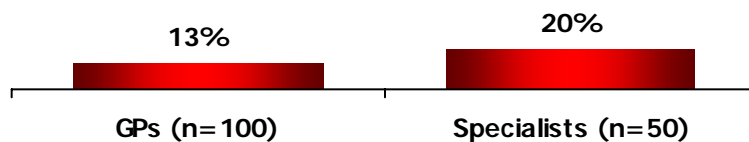


Q21. When do you expect 100% of your patients records to be fully electronic? Base: All GP and Specialist respondents who know whether or not they have patients whose health records are 100% electronic (n=142)

Most GPs and specialists do not have patient records that are 100% electronic

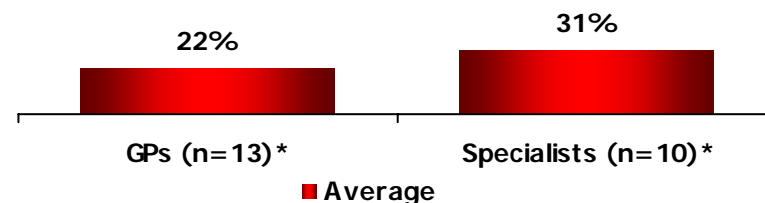
- ▶ Among those GPs and specialists who do have patients with health records that are 100% electronic, these patients represent, on average, 22% of GPs' total practice and 31% of specialists

% of GPs/SPECIALISTS THAT HAVE PATIENTS WHOSE HEALTH RECORDS ARE 100% ELECTRONIC



Q19. Do you have any patients whose health records are 100% electronic? Base: All GP and Specialist respondents (n=150)

AVERAGE % of TOTAL HEALTH RECORDS THAT ARE 100% ELECTRONIC



Q20. What percent do they represent of your total practice? Base: All GP and Specialist respondents who have patients whose health records are 100% electronic (n=23)*

*Note: Small base n, interpret with caution

Electronic health records will have an impact on all aspects of healthcare

- ▶ Perceived impact of electronic health records is greatest among healthcare administration
- ▶ In terms of results review for radiology images, including pictures archiving and communications systems, specialists and healthcare administrators perceive a greater impact than GPs

% Significant/Some impact	GPs	Specialists	Administrators
n=	100	50	30
Access to current medical records	85%	84%	100%
Access to medical history	83%	86%	100%
Results review of laboratory tests	83%	80%	97%
Results review of radiology reports	83%	80%	90%
Real-time drug interaction alerts	77%	76%	93%
Access to patient demographics	77%	58%	97%
Ordering medications	74%	76%	90%
Results review for radiology images, including pictures archiving and communications systems (PACS)	71%	86%	90%
Ordering laboratory tests	67%	62%	90%
Clinical guidelines and pathways	66%	66%	87%
Ordering of radiology procedures	59%	64%	93%
Patient support through home monitoring, self-testing, and interactive patient education	52%	62%	83%

Q15. How much impact will an electronic health record have in each of the following areas? Base: All respondents (n=180)

GPs are more overwhelmed by the amount of patient information

- ▶ While GPs, specialists and healthcare decision makers agree that:
 - ▶ Healthcare staff could share decision-making information more effectively with improved desktop analysis and reporting tools
 - ▶ They would make better informed decisions if the information they had was more relevant to their decision-making roles
 - ▶ The healthcare system could operate smarter if planners used more sophisticated information tools to anticipate changes in population health needs

...it is physicians who feel the most overwhelmed by the amount of patient information

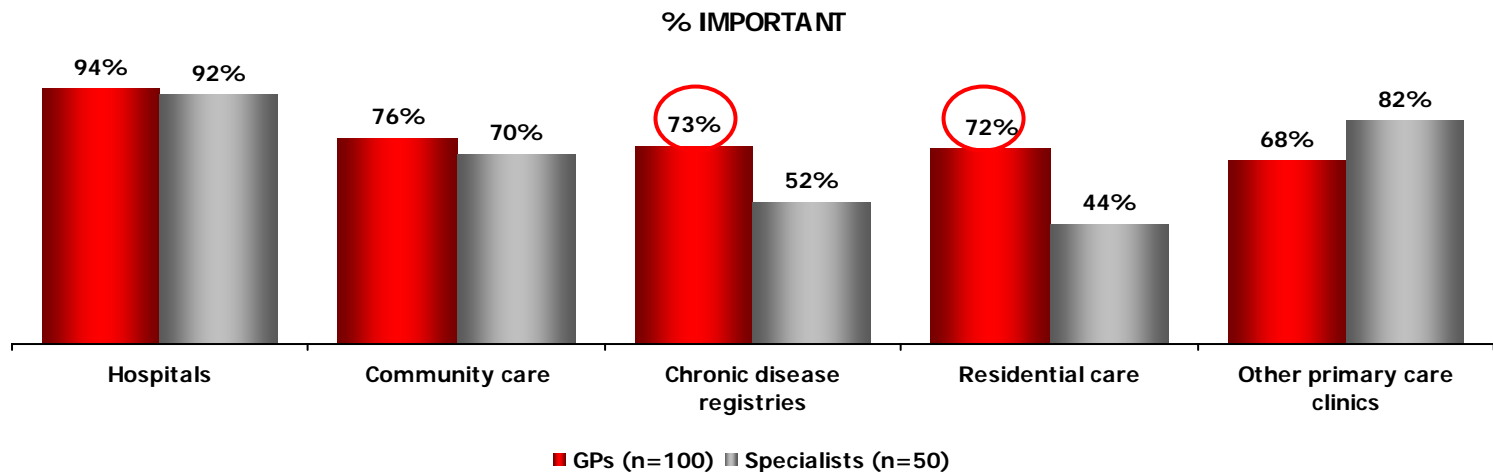
% Agree	GPs	Specialists	Administrators
n=	100	50	30
I believe healthcare staff could share decision-making information more effectively with improved desktop analysis and reporting tools	91%	84%	83%
I'd make better-informed decisions if the information I had was more relevant to my decision-making role	90%	82%	80%
Our healthcare system could operate smarter if planners used more sophisticated information tools to anticipate changes in population health needs	75%	80%	90%
The amount of patient information I have overwhelms me	63%	46%	33%

Q16. Please tell me whether you agree or disagree with the following statements in terms of the use of healthcare intelligence and analytics information within your organization. Base: All respondents (n=180)

Obtaining and Using Information from Various Areas of the Healthcare System

Compared to specialists, GPs have a greater need for accessing information from chronic disease registries and residential care

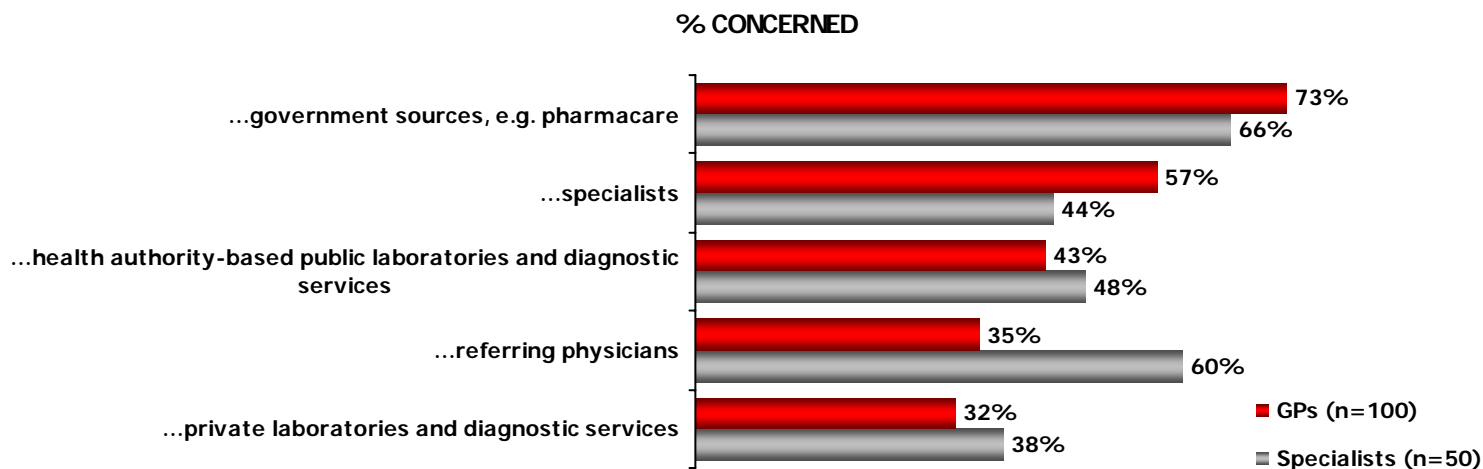
- ▶ GPs and specialists under the age of 45 also place greater importance than those aged 55 and older on accessing information from community care (81% vs. 60%) and chronic disease registries (78% vs. 50%)
- ▶ It is important for GPs and specialists to be able to access information from all of the following areas of the healthcare system, however, GPs show a greater need than specialists for information from chronic disease registries (73% vs. 52%) and residential care (72% vs. 44%)



Q10. How important is it for you to be able to access patient information from other parts of the healthcare system to enable you to provide better healthcare to your patients? Base: All GP and Specialist respondents (n=150)

GPs and specialists show the most concern for the quality of information they receive from government sources

- ▶ At least 2 in 5 are concerned about information they receive from health authority-based public laboratories and diagnostic services, and at least 1 in 3 are concerned about the information they receive from private laboratories and diagnostic services
- ▶ Where GPs and specialists do differ is in their level of concern for information from referring physicians, with specialists showing much greater concern (60% vs. GPs: 35%)
- ▶ GPs and specialists under the age of 45 show greater concern than those aged 55 and older for the quality of information from health authority-based public laboratories and diagnostic services (54% vs. 31%)



Q8. As a GP/Specialist, how concerned are you, if at all, about the quality (i.e. accuracy, reliability and timeliness) of medical information from... Base: All GP and Specialist respondents (n=150)

Timeliness and communication between offices is the biggest concern

- ▶ Confidence in the accuracy of information in the healthcare system in British Columbia is lower among healthcare administrators than GPs
 - ▶ 7 in 10 (67%) B.C. GPs believe the information currently available in the healthcare system in British Columbia is accurate at least most of the time, versus 2 in 5 (43%) healthcare administrators
- ▶ Healthcare administrators are also less likely than GPs or specialists to find this information useful (37% vs. 61% and 64%, respectively)
- ▶ About half of GPs and specialists do not find information easy to understand and only 19% of GPs and 3 in 10 specialists or healthcare administrators say information is timely
- ▶ Most of the time, information does not travel well between offices

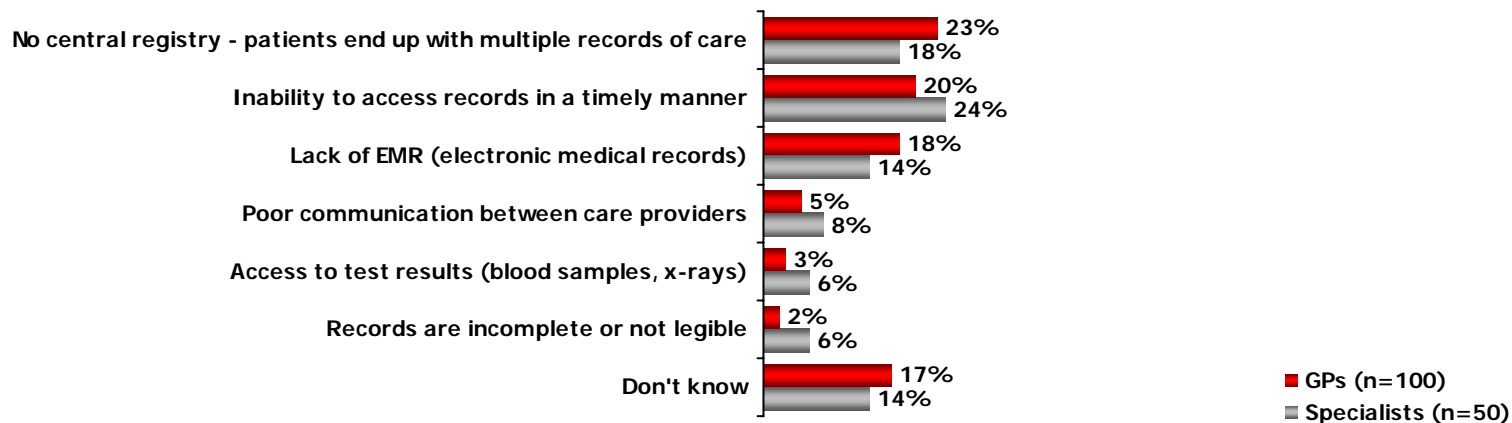
% Always/Most of the time	GPs	Specialists	Administrators
n=	100	50	30
...is accurate	67%	62%	43%
...is useful	61%	64%	37%
...is easy to understand	48%	48%	30%
...is timely	19%	28%	27%
...travels well between offices	16%	26%	13%

Q11. I believe the general patient information currently available in the healthcare system in British Columbia...
 Base: All respondents (n=180)

GPs and specialists cite the lack of a central registry and inability to access records in a timely manner as the biggest gap in the healthcare record system

- ▶ Lack of electronic medical records is one of the 3 biggest gaps in the B.C. healthcare record system, according to GPs and specialists
- ▶ The lack of electronic medical records falls behind the absence of a central registry and the inability to access records in a timely manner

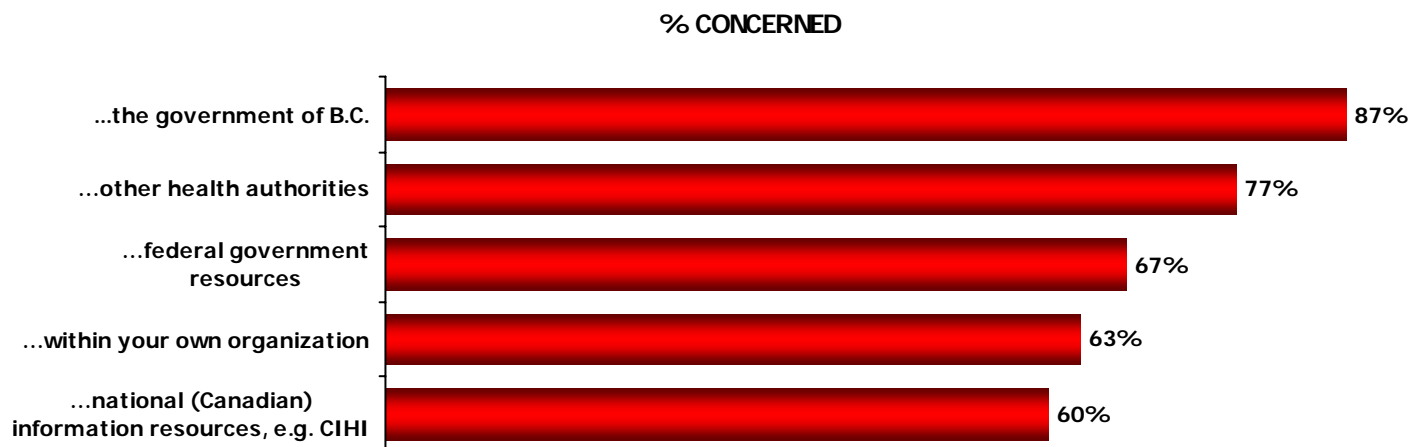
LARGEST GAP in HEALTHCARE RECORD SYSTEM in BRITISH COLUMBIA



Q12. What would you identify as the biggest gap in the healthcare record system that is currently in place in British Columbia?
Base: All GP and Specialist respondents (n=150)

Healthcare administrators are most concerned about information they use for planning, evaluation and forecasting received from the B.C. government

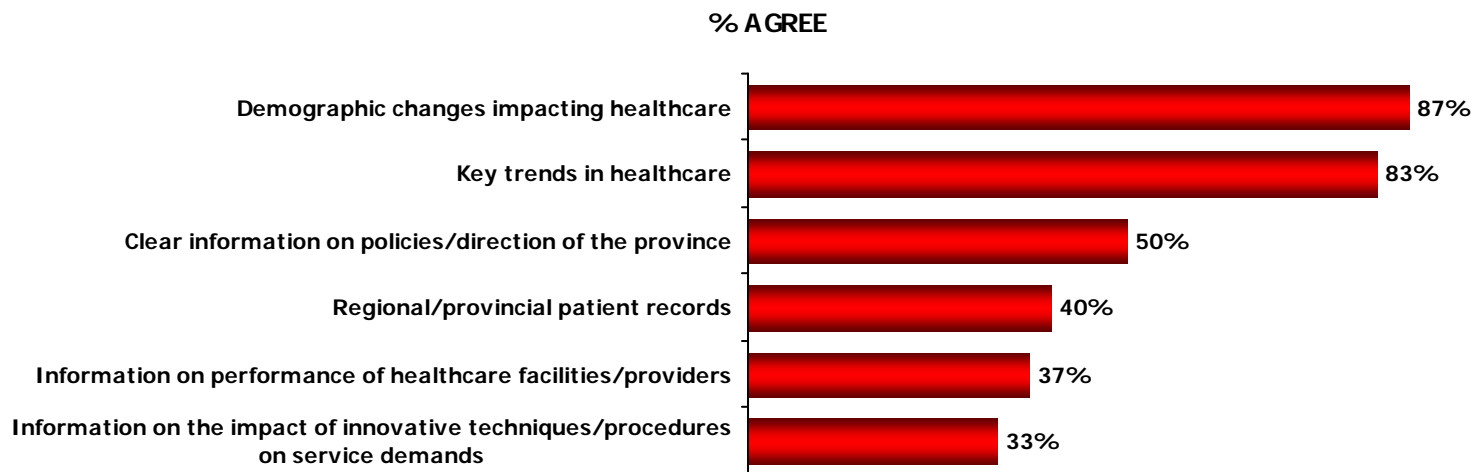
- ▶ While healthcare administrators are concerned about information they receive from all of the following sources, they show the most concern for information they receive from the government of B.C. and other health authorities
- ▶ In fact, administrators show more concern for information from these sources, as well as information from federal government resources, than for information within their own organization



Q4 (Admin). As a healthcare administrator, how concerned are you, if at all, about the state of information you use for planning, evaluation and forecasting from... Base: All Administrative respondents (n=30)

While healthcare decision makers have the right data to make decisions on key trends and demographic changes, they are lacking in other areas

- ▶ Half of healthcare administrators do not feel they have the right data and information to make effective decisions on policies/direction of the province
- ▶ As well, most do not feel they possess the appropriate resources to make decisions on regional/provincial patient records, performance of healthcare facilities/providers, or innovative techniques/procedures on service demands



Q6 (Admin). How much do you agree that you have the right data and information to make effective decisions on the following:
Base: All Administrative respondents (n=30)

Electronic Health Record Delivery in British Columbia

Availability of IT infrastructure holds equal importance to other issues in determining the success of British Columbia's electronic health record delivery

- ▶ GPs, specialists and healthcare administrators agree that the following issues all play an important role in determining the success of B.C.'s electronic health record delivery
- ▶ Managing the initial cost of implementation, however, is more of a concern for healthcare administrators

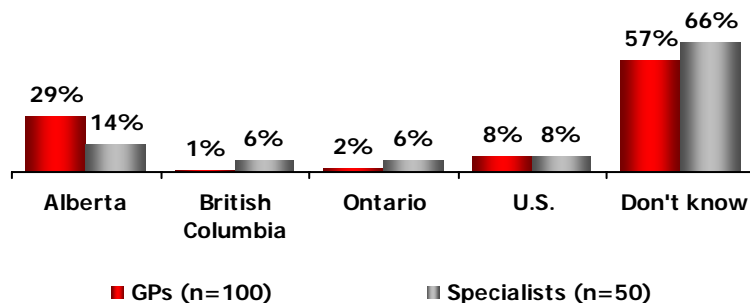
% Important	GPs	Specialists	Administrators
n=	100	50	30
Acceptance by physicians/clinical staff	95%	94%	100%
Interoperability with current system	95%	86%	97%
Managing ongoing cost of implementation	95%	86%	93%
Availability of qualified IT staff	94%	94%	97%
Managing initial cost of implementation	93%	88%	100%
Availability of IT Infrastructure	91%	94%	97%
Acceptance by the public	69%	78%	83%

Q14. How important are the following issues to the success of British Columbia's electronic health record delivery? Base: All respondents (n=180)

Most GPs and specialists are unsure of which province or country has the best electronic health records delivery

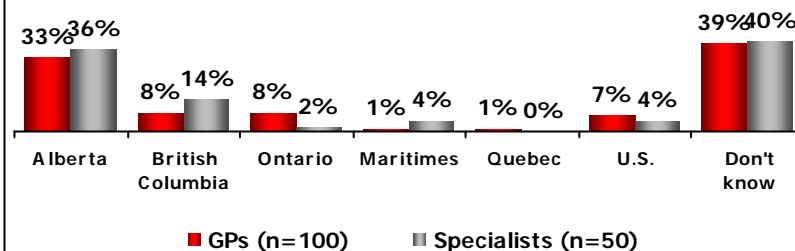
- ▶ While many are unaware of who has the best healthcare delivery or best electronic health records delivery, most commonly, Alberta comes out on top
- ▶ In terms of electronic healthcare records delivery, GPs are more likely than specialists to believe Alberta is the best (29% vs. 14%)
- ▶ There is also a gender divide in terms of knowing who has the best electronic health records delivery. While male GPs and specialists are more likely than females to say Alberta (30% vs. 3%), female GPs and specialists are more likely than males to say they do not know (82% vs. 54%)

BEST PROVINCE/COUNTRY for ELECTRONIC HEALTH RECORDS DELIVERY



Q23. In terms of quality of electronic health records delivery, which province/country do you believe is the best? Base: All GP and Specialist respondents (n=150)

BEST PROVINCE/COUNTRY for QUALITY HEALTHCARE DELIVERY

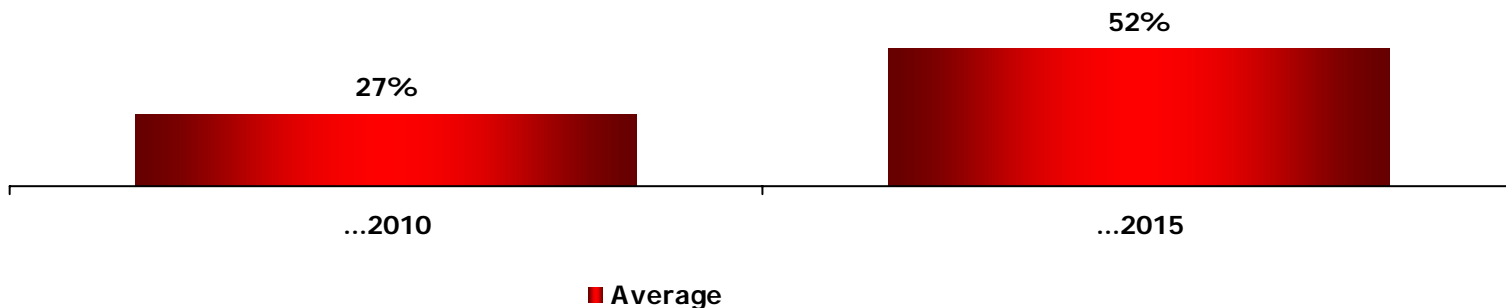


Q22. In terms of quality of healthcare delivery, which province/country do you believe is the best? Base: All GP and Specialist respondents (n=150)

According to the majority of healthcare decision makers, it will take longer than planned to implement B.C.'S eHealth strategy

- ▶ On average, half (48%) think B.C.'s eHealth strategy will not be implemented by 2015

% of B.C.'s HEALTHCARE SYSTEM THAT WILL HAVE FULLY IMPLEMENTED the B.C. GOVERNMENT'S eHEALTH STRATEGY BY...

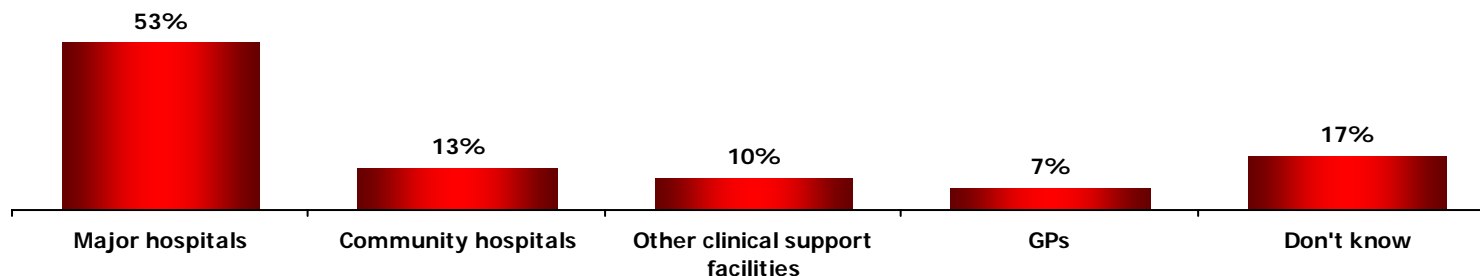


Q8/Q9 (Admin). Thinking about the implementation of the B.C. government's published eHealth strategy, what percentage of B.C.'s healthcare system do you think will have fully implemented it by... Base: All Administrative respondents (n=30)

GPs are not expected to adapt quickly to electronic health records

- ▶ According to healthcare decision makers, major hospitals will adapt to electronic health records the fastest, followed by community hospitals, other clinical support facilities and GPs

FASTEST to ADAPT to ELECTRONIC HEALTH RECORDS



Q10 (Admin). In your opinion, what part of the healthcare system will adapt to EHR the fastest?
Base: All Administrative respondents (n=30)

Unaided, 1 in 10 healthcare administrators say the selection of a single provider would help make the transition to a provincial EHR more efficient

- ▶ Increased funding is seen as being the most helpful in aiding the transition to a provincial EHR, followed by increasing awareness or providing training, and having clearly defined priorities and timelines

METHODS of MAKING the TRANSITION to EHR MORE EFFICIENT



Q11 (Admin). What do you think can be provided to make the transition to a provincial EHR more efficient?
Base: All Administrative respondents (n=30)

Healthcare administrators believe the full implementation of electronic medical records will cost too much or will be too hard to integrate

- ▶ The top 2 barriers to full implementation of electronic medical records, according to healthcare administrators, is cost and data integration
- ▶ 2 in 5 (37%) say there is too much training involved for doctors to use it effectively, and 1 in 4 say the technology is not up to the task

BARRIERS to FULL IMPLEMENTATION of ELECTRONIC MEDICAL RECORDS

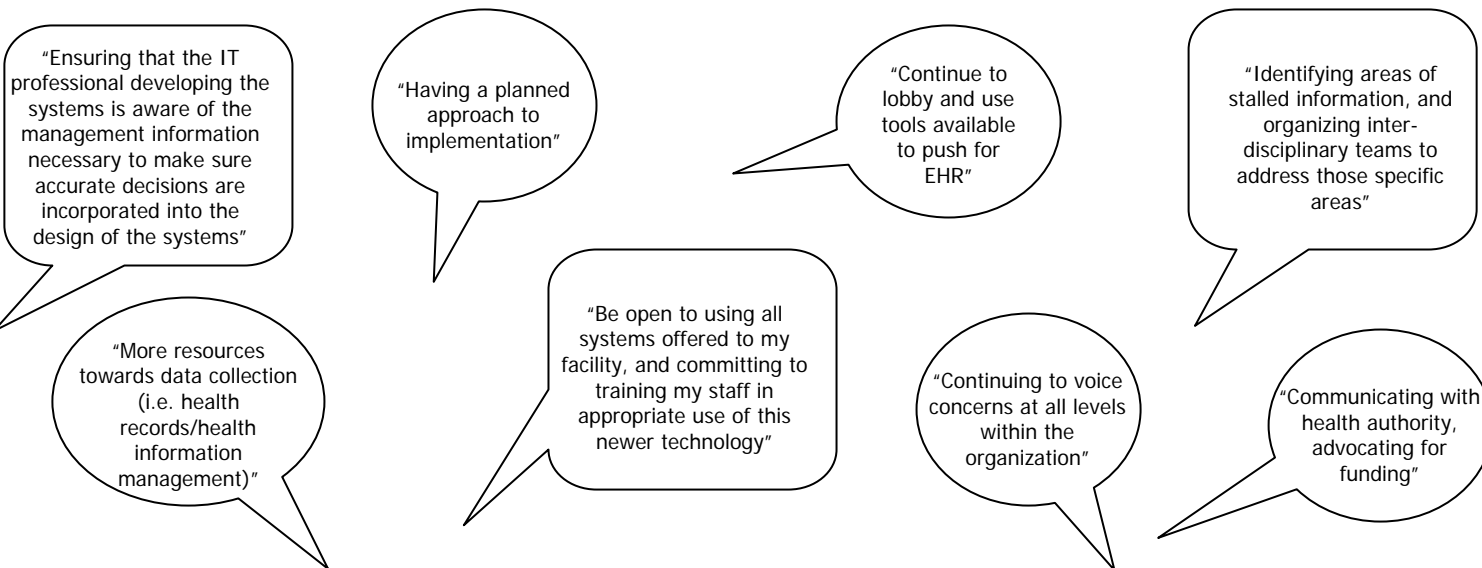


Q16. What are some of the barriers to the full implementation of electronic medical records?

Base: All Administrative respondents (n=30)

Improving Access to Quality, Relevant and Timely Decision-Making Information

- ▶ Below are some examples provided by healthcare decision makers as to what actions they can take as part of the healthcare administration that may improve access to information



Q17 (Admin). What are some of the actions you can take as part of the healthcare administration that might improve your access to quality, relevant and timely decision-making information? Base: All Administrative respondents (n=30)

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