



# Family Medicine Longitudinal Survey

In Practice Survey (T3) 2021 Results:  
Aggregate findings across Canada's family medicine residency  
programs



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Note: The College of Family Physicians of Canada (CFPC) is committed to engaging in ongoing quality assurance mechanisms. However, we cannot guarantee that errors will not emerge. The data contained within this report are, to the best of our knowledge, accurate at the time of release. The Collège des médecins du Québec (CMQ) partnered with CFPC to support the engagement of Quebec based family physicians in completing the FMLS T3 survey.

### **Acknowledgements**

The CFPC acknowledges the 17 university-based family medicine residency programs that have partnered with the CFPC to evaluate the Triple C Competency-Based Curriculum and provide Family Medicine Longitudinal Survey data to the CFPC.

## Foreword

With the introduction of the Triple C Competency based curriculum in 2010, Family Medicine residency training has taken on a different face in Canada. The development of this curriculum emerged as a result of recommendations put forth in a proposal prepared by the Working Group on Postgraduate Curriculum Review (WGCR)<sup>1</sup>, a subcommittee of the Section of Teachers Council. The WGCR used the CanMEDS-Family Medicine (CanMEDS-FM) framework<sup>2,3</sup> to guide the development of the curriculum.

As a result, each Family Medicine program was asked to establish a competency- based curriculum in family medicine that is **comprehensive**, focused on **continuity**, and **centred** in family medicine—the **Triple C Competency-based Curriculum (Triple C)**.

The resulting Triple C competency- based curriculum design is intended to:

- Produce competent family physicians in a more efficient and effective way;
- Ensure that graduating family physicians have a well-balanced set of competencies that enable them to practice in any Canadian community and context; and
- Attract more medical school graduates to family medicine

As part of the process to evaluate the effectiveness of the Triple C curriculum an evaluation plan was developed.<sup>4</sup> One of the methodologies outlined in the plan is a longitudinal survey to track residents and their experiences and choices of practice from the start to the end of residency and three years into practice. The Working Group for Survey Development (WGSD) was formed to design such a tool and to help implement the pilot process.

*The Family Medicine Longitudinal Survey (FMLS)* describes: the demographics of family medicine residents; their family medicine learning experiences acquired; their perspectives about family medicine as a discipline; their intentions and choices made to practice family medicine. Piloting of the surveys was completed in 2012 and 2013 in seven Canadian FM programs. In 2014, 2015 and 2016 the FMLS was offered to family medicine residents across 16 of Canada’s family medicine residency programs, with the exception of the exit survey in 2015 which was offered in 15 programs. These 16 programs agreed to implement the survey with their learners starting with the 2014 cohort (Table 1). A cohort is considered a group of learners that begin and end training from one residency program. The 17th program began instituting the FMLS in 2017.

For more information about the Triple C evaluation plan and the Family Medicine Longitudinal Survey please see “*A National Program Evaluation Approach to Study the Impact of Triple C*”, found in *The Triple C Report - Part 2 Report*.<sup>5</sup>

Table 1. FM Longitudinal Survey Learner Cohort: Trajectory

Cohort	Entry into Residency (T1 entry)	Exit from Residency (T2 exit)	Three years post exit from residency (T3 in Practice)
1	2014	2016	2019
2	2015	2017	2020
3	2016	2018	2021
4	2017	2019	2022
5	2018	2020	2023
6	2019	2021	2024
7	2020	2022	2025
8	2021	2023	2026

## Family Medicine Longitudinal Survey Methodology

The Family Medicine Longitudinal Survey was designed to be a longitudinal, cross-sectional survey administered at three time points: Time 1 (T1) at entry; Time 2 (T2) at exit; Time 3 (T3) at three years into practice. Surveys are administered in paper form or online. Surveys are available in both English and French. The CFPC Program Evaluation Advisory Group and Triple C - Data Oversight Committee (DOC) oversee ongoing program evaluation activity, data use and storage issues for the Family Medicine Longitudinal Survey. These committees were struck in 2015.

Participation in the FMLS is voluntary and results represent only respondents who chose to participate. Results may be subject to selection bias. Caution should be applied when interpreting or drawing conclusions from the data.

### T1 (entry) survey

The T1 (entry) survey is administered by the university residency program to all incoming family medicine residents within three months of starting the program. The T1 (entry) survey requests information about residents' exposure to family medicine concepts in medical school, and their intentions and attitudes toward family medicine. It collects baseline data for individual residents so that change in outcomes can be tracked over time whilst in family medicine training.

### T2 (exit) survey

The T2 (exit) survey is administered to graduating residents within the three months prior to exit from the FM residency program. The T2 (exit) survey requests information about graduates' intentions for practice, as well as their confidence in their skills and knowledge upon completion of their residency

program. It provides information about graduate experiences with the curriculum and their identity as a family physician.

### **T3 (in practice) survey**

The T3 (in practice) survey is administered to FM physicians who graduated three years prior and who are registered in the CFPC membership database. The T3 survey administration is overseen by CFPC Triple C evaluation staff via the membership database and email blasts to members fitting the eligibility criteria. In 2021, the CFPC and the Collège des médecins du Québec (CMQ) partnered to support the engagement of Quebec based family physicians in completing the FMLS T3 survey. The CMQ sent additional email invitations to their eligible Quebec members requesting completion of the survey.

### **FMLS Data Storage**

The T1 (entry) and T2 (exit) data is compiled by the universities and sent to the CFPC. The T3 (in practice) data is collected and compiled by the CFPC from the members directly. Upon receipt, all survey data is de-identified before entry into a national database and stored after all individually identifying characteristics are removed. Each individual institution keeps the raw data it collects from its residents, as per the Research Ethics Boards requirements at the home institution.

The CFPC and the participating universities entered into a Data Sharing Agreement (DSA) in 2014 that outlines the terms and governance for data collection, ownership, use and access and sharing. The terms of this agreement also delineate the formation of a Triple C Data Oversight Committee (DOC) to oversee the judicious use of the FMLS and other Triple C evaluation data housed in the national database. A process for the committee's review of external research requests for use of the Triple C evaluation data is operational.

### **Ethical Considerations**

Ethics approval was obtained from each participating residency program's local ethics boards to implement the survey as part of a longitudinal study/program evaluation plan. An information sheet preceding the survey indicates that completion of the survey implies consent to participate in the study, with the agreement that the respondents' de-identified data will be entered into a secure national database held by the College of Family Physicians of Canada.

For more information about the survey and its methodology contact the Education Evaluation and Research Unit, College of Family Physicians of Canada, [eeru@cfpc.ca](mailto:eeru@cfpc.ca)

## This Report

This report provides you with aggregate results by graph of the T3 (in practice) survey that was administered in 2021. Family physicians who indicated in the CFPC membership database that they graduated in 2018 from any of the 17 FM residency programs in Canada were invited to complete the survey. Aggregate results for each survey question are shown. For your reference, the T3 (in practice) survey administered is attached as an appendix to this report (Appendix 1).

## Purpose

The overarching hope is that over time, programs will accumulate objective information that can be used for further program evaluation, educational research and curriculum development advancing the discipline of family medicine. Cognizant that quantitative survey data is subject to interpretation, programs are encouraged to consider the use of qualitative approaches (interviews, focus groups and documentary analysis) to gain a more fulsome understanding of the resident responses to the survey and to review data across consecutive years to determine trends and generalizability of the findings. Opportunities to consider further questions, national in scope are possible and encouraged.

## Access to FMLS Data

The Triple C DOC has developed a request process for the committee's review of external research requests for use of the Triple C evaluation data. To submit a request for FMLS data please contact the EERU ([eeru@cfpc.ca](mailto:eeru@cfpc.ca))

Please send any questions to the Education Evaluation and Research Unit, College of Family Physicians of Canada: [eeru@cfpc.ca](mailto:eeru@cfpc.ca).

## CANADIAN UNIVERSITIES WITH FAMILY MEDICINE RESIDENCY PROGRAMS

University of British  
Columbia

University of Calgary

University of Alberta

University of Saskatchewan

University of Manitoba

Western University

McMaster University

NOSM University

University of Toronto

University of Ottawa

Queen's University

University of Sherbrooke

University of Montréal

McGill University

Laval University

Dalhousie University

Memorial University of  
Newfoundland

## References

1. Tannenbaum D, Kerr J, Konkin J, Organek A, Parsons E, Saucier D, Shaw L, Walsh A. Triple C competency-based curriculum. Report of the Working Group on Postgraduate Curriculum Review – Part 1. Mississauga, ON: College of Family Physicians of Canada; 2011. Available from: [http://www.cfpc.ca/uploadedFiles/Education/\\_PDFs/WGCR\\_TripleC\\_Report\\_English\\_Final\\_18Mar11.pdf](http://www.cfpc.ca/uploadedFiles/Education/_PDFs/WGCR_TripleC_Report_English_Final_18Mar11.pdf)
2. Frank, JR, ed. *The CanMEDS 2005 physician competency framework. Better standards. Better physicians. Better care.* Ottawa: The Royal College of Physicians and Surgeons of Canada; 2005
3. Shaw E, Oandasan I, Fowler N, eds. CanMEDS-FM 2017: A competency framework for family physicians across the continuum. Mississauga, ON: The College of Family Physicians of Canada; 2017. Available from: [https://www.cfpc.ca/uploadedFiles/Resources/Resource\\_Items/Health\\_Professionals/CanMEDS-Family-Medicine-2017-ENG.pdf](https://www.cfpc.ca/uploadedFiles/Resources/Resource_Items/Health_Professionals/CanMEDS-Family-Medicine-2017-ENG.pdf)
4. Oandasan, I, on behalf of the Triple C Competency Based Curriculum Task Force. A national program evaluation approach to study the impact of Triple C. In: Oandasan I, Saucier D, eds. Triple C Competency-based Curriculum Report – Part 2: Advancing Implementation. Mississauga, ON: College of Family Physicians of Canada; 2013. Available from: [www.cfpc.ca/uploadedFiles/Education/\\_PDFs/TripleC\\_Report\\_pt2.pdf#page=127](http://www.cfpc.ca/uploadedFiles/Education/_PDFs/TripleC_Report_pt2.pdf#page=127)
5. Oandasan I, Saucier D, eds. *Triple C Competency-based Curriculum Report – Part 2: Advancing Implementation.* Mississauga, ON: College of Family Physicians of Canada; 2013. Available from: [www.cfpc.ca/uploadedFiles/Education/\\_PDFs/TripleC\\_Report\\_pt2.pdf](http://www.cfpc.ca/uploadedFiles/Education/_PDFs/TripleC_Report_pt2.pdf).

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**THE COLLEGE OF  
FAMILY PHYSICIANS  
OF CANADA**



**LE COLLÈGE DES  
MÉDECINS DE FAMILLE  
DU CANADA**

## **Family Medicine Longitudinal Survey (FMLS)**

### **T3 (in practice) 2021 Results**

#### **Aggregate Results for 17 FM Residency Programs**

**T3 (in practice) data collected from Family Physicians 3 years into practice**

**n = 333**

**Response Rate: 20.9%**

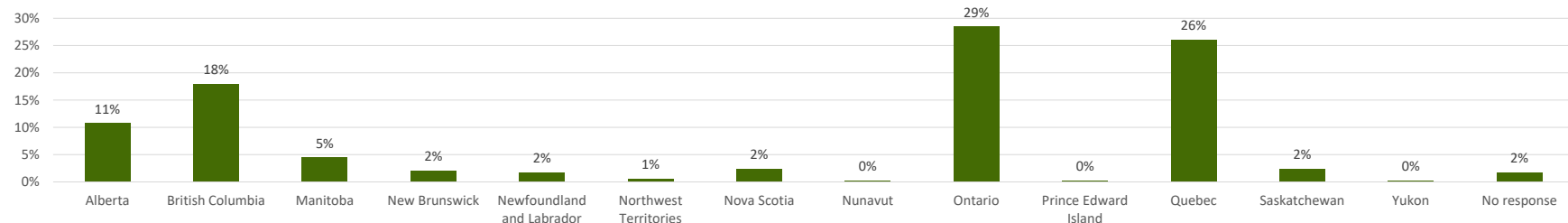
**Date: December 2022**

**Prepared by: CFPC**

## A. Profile of Survey Respondents:

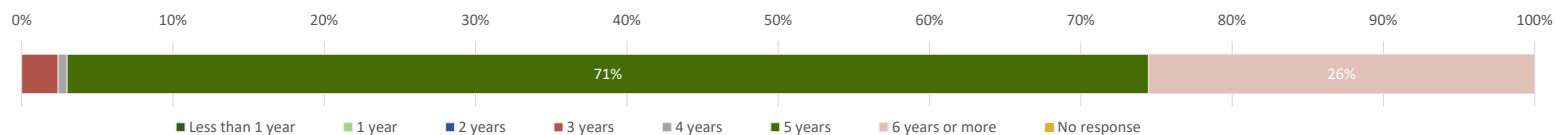


Q8n. Select the province/territory in which your primary practice is currently located. (n=333)



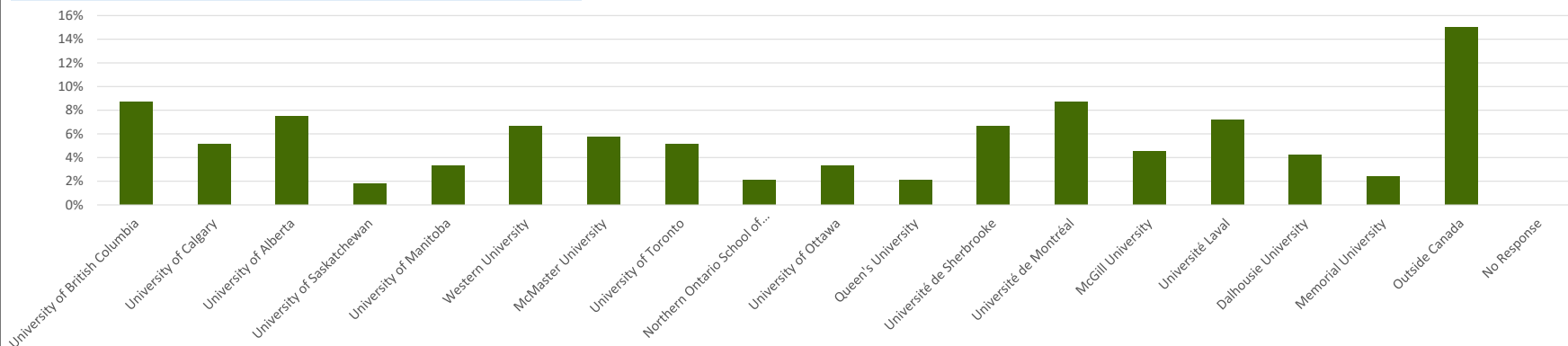
Q8n	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Northwest Territories	Nova Scotia
	10.8%	18.0%	4.5%	2.1%	1.8%	0.6%	2.4%
	Nunavut	Ontario	Prince Edward Island	Quebec	Saskatchewan	Yukon	No response
	0.3%	28.5%	0.3%	26.1%	2.4%	0.3%	1.8%

Q9. What year were you awarded your M.D. degree? (Years since MD) (n=333)



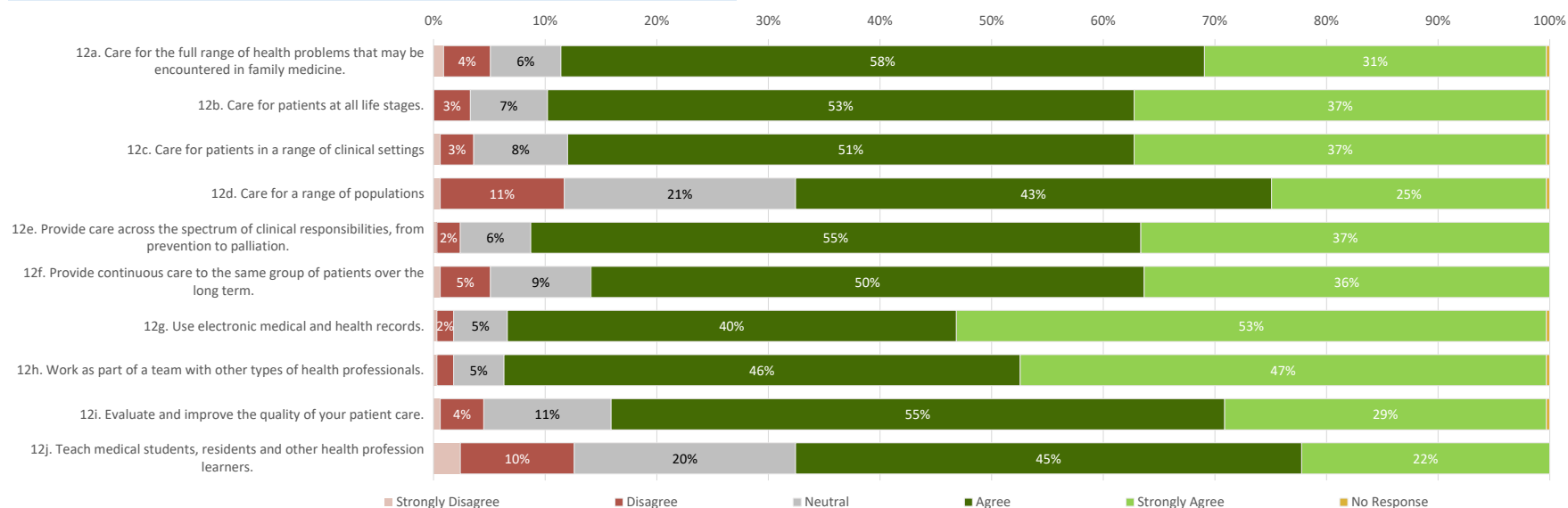
	Less than 1 year	1 year	2 years	3 years	4 years	5 years	6 years or more	No response
Q9	0.0%	0.0%	0.0%	2.4%	0.6%	71.5%	25.5%	0.0%

Q10. At which university were you awarded your M.D. degree? (n=333)



## B. About Your Residency

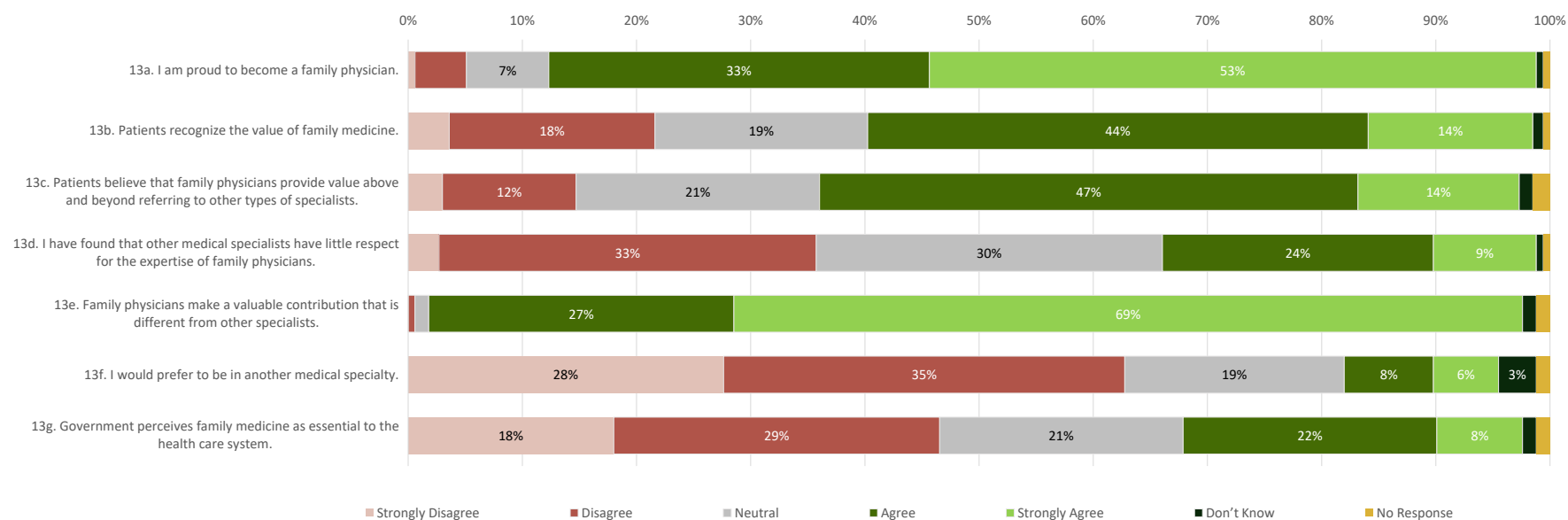
Q12. Looking back, to what extent do you agree or disagree with the following statements?  
My core family medicine residency program prepared me to... (n=333)



	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Response
12a	0.9%	4.2%	6.3%	57.7%	30.6%	0.3%
12b	0.0%	3.3%	6.9%	52.6%	36.9%	0.3%
12c	0.6%	3.0%	8.4%	50.8%	36.9%	0.3%
12d	0.6%	11.1%	20.7%	42.6%	24.6%	0.3%
12e	0.3%	2.1%	6.3%	54.7%	36.6%	0.0%
12f	0.6%	4.5%	9.0%	49.5%	36.3%	0.0%
12g	0.3%	1.5%	4.8%	40.2%	52.9%	0.3%
12h	0.3%	1.5%	4.5%	46.2%	47.1%	0.3%
12i	0.6%	3.9%	11.4%	55.0%	28.8%	0.3%
12j	2.4%	10.2%	19.8%	45.3%	22.2%	0.0%

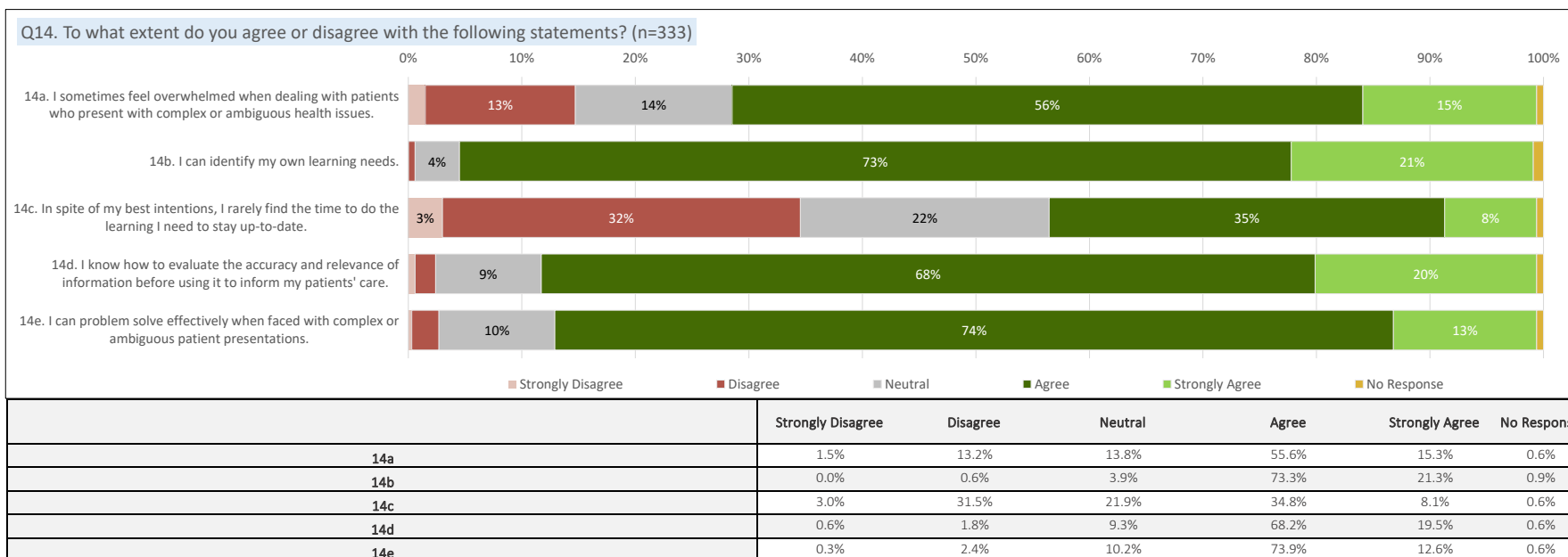
## C. Perceptions About Family Medicine

Q13. To what extent do you agree or disagree with the following statements: (n=333)

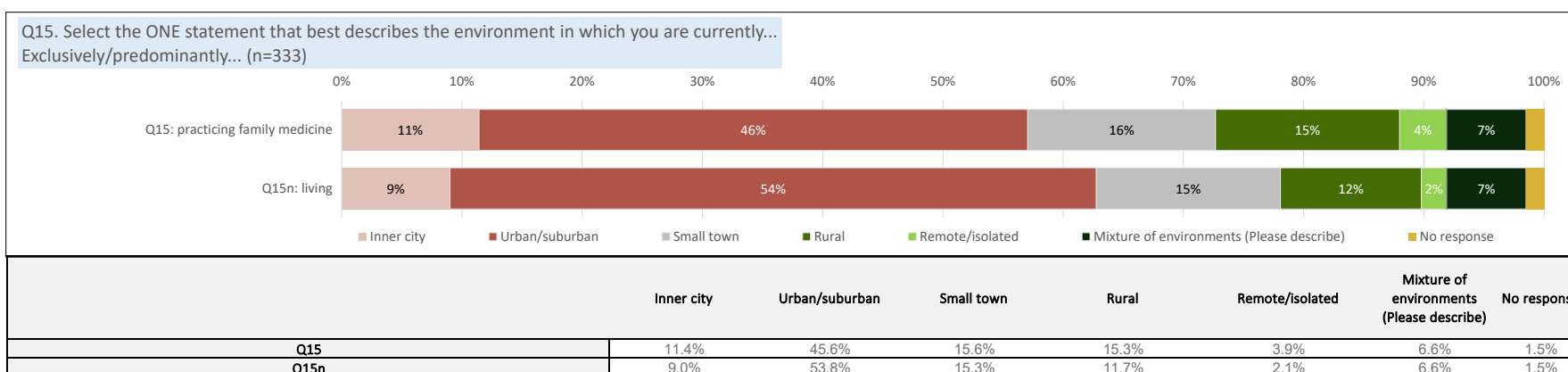


	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	No Response
13a	0.6%	4.5%	7.2%	33.3%	53.2%	0.6%	0.6%
13b	3.6%	18.0%	18.6%	43.8%	14.4%	0.9%	0.6%
13c	3.0%	11.7%	21.3%	47.1%	14.1%	1.2%	1.5%
13d	2.7%	33.0%	30.3%	23.7%	9.0%	0.6%	0.6%
13e	0.0%	0.6%	1.2%	26.7%	69.1%	1.2%	1.2%
13f	27.6%	35.1%	19.2%	7.8%	5.7%	3.3%	1.2%
13g	18.0%	28.5%	21.3%	22.2%	7.5%	1.2%	1.2%

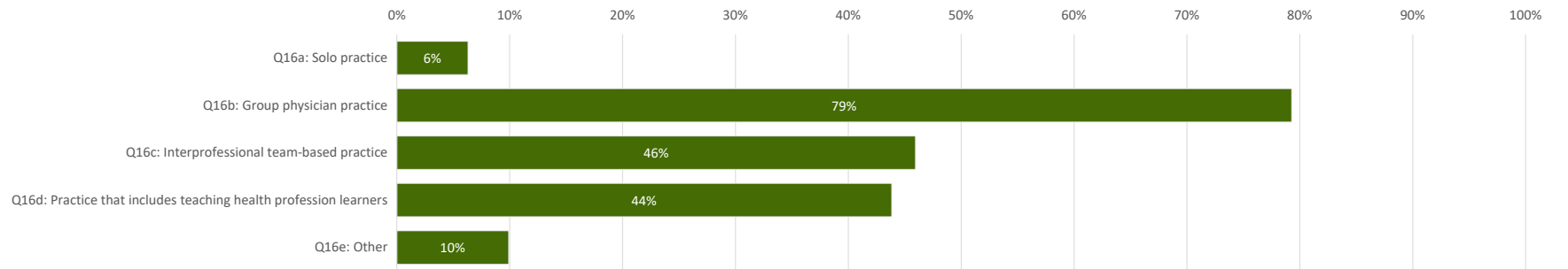
## D. Problem Solving and Learning



## E. Current Practice

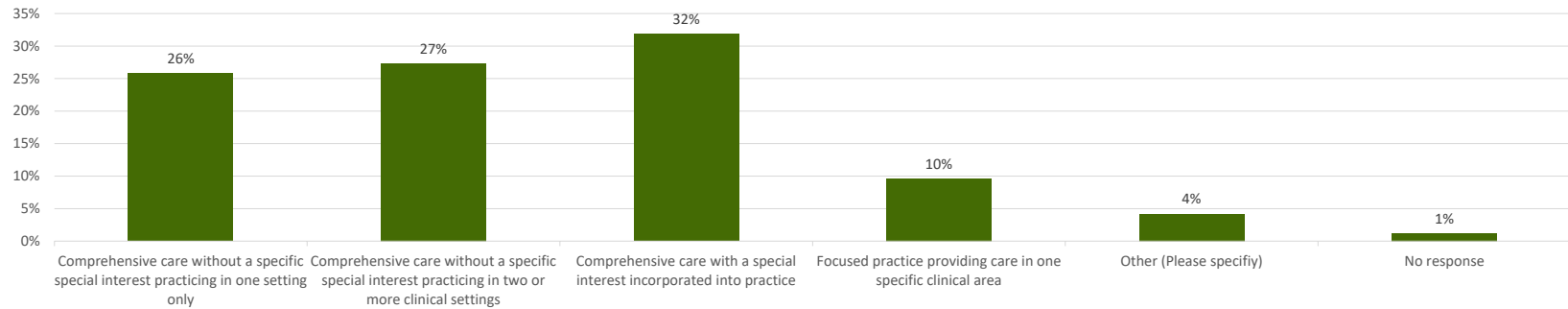


Q16. Which of the following best describes the organizational model(s) you currently practice in? (Select all that apply) (n=238)



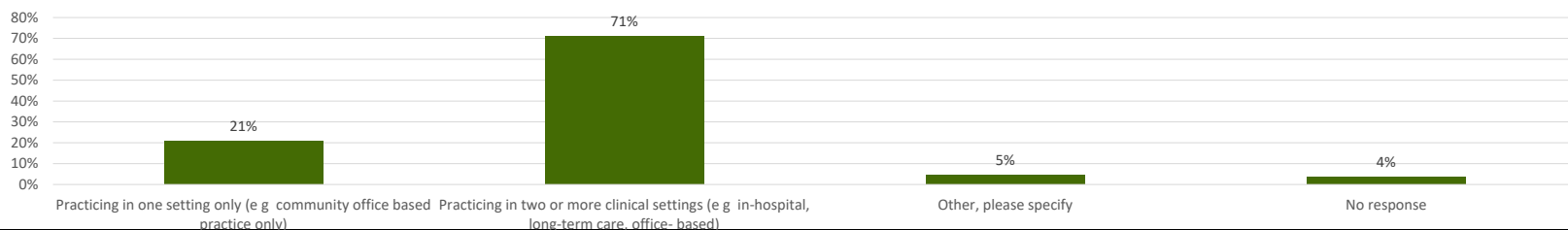
	Yes	No	No Response
16a	6.3%	92.5%	1.2%
16b	79.3%	19.5%	1.2%
16c	45.9%	52.9%	1.2%
16d	43.8%	55.0%	1.2%
16e	9.9%	88.9%	1.2%

Q17. Which of the following best describes your current practice type? (Select one only) (n=333)



	Comprehensive care without a specific special interest practicing in one setting only	Comprehensive care without a specific special interest practicing in two or more clinical settings	Comprehensive care with a special interest incorporated into practice	Focused practice providing care in one specific clinical area	Other (Please specify)	No response
Q17	25.8%	27.3%	31.8%	9.6%	4.2%	1.2%

Q17n. If special interest: Which of the following best describes your current practice type? (n=110)



Practice Type	Percentage
Practicing in one setting only (e.g. community office based practice only)	20.9%
Practicing in two or more clinical settings (e.g. in-hospital, long-term care, office-based)	70.9%
Other, please specify	4.5%
No response	3.6%

Q17n.

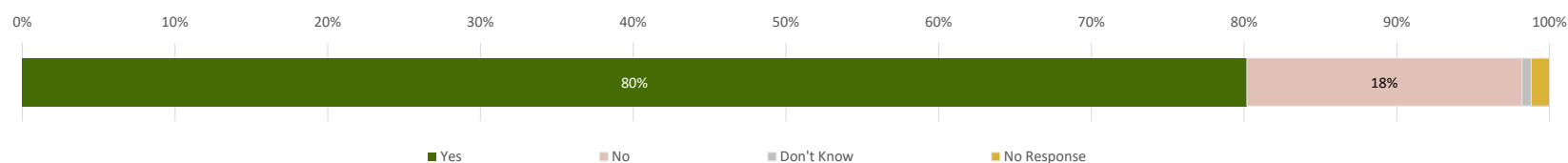
20.9%

70.9%

4.5%

3.6%

Q18. Do you provide comprehensive care to a current group of patients over the long term? (n=333)



Response	Percentage
Yes	80.2%
No	18.0%
Don't Know	0.6%
No Response	1.2%

Q18.

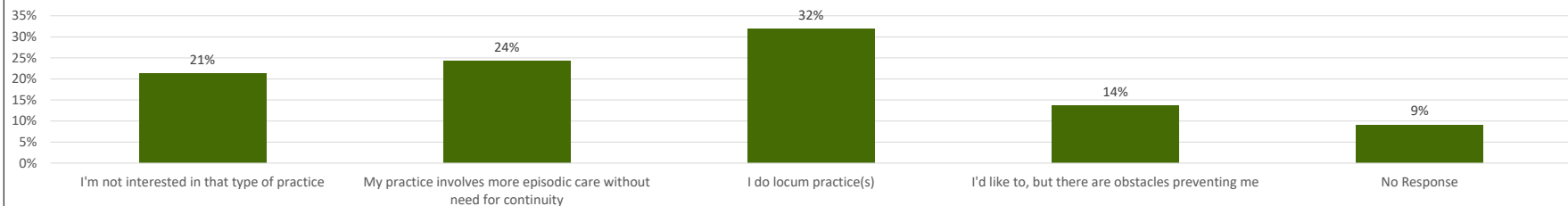
80.2%

18.0%

0.6%

1.2%

Q19. If no, what is your primary reason? (n=66)



Reason	Percentage
I'm not interested in that type of practice	21.2%
My practice involves more episodic care without need for continuity	24.2%
I do locum practice(s)	31.8%
I'd like to, but there are obstacles preventing me	13.6%
No Response	9.1%

Q19.

21.2%

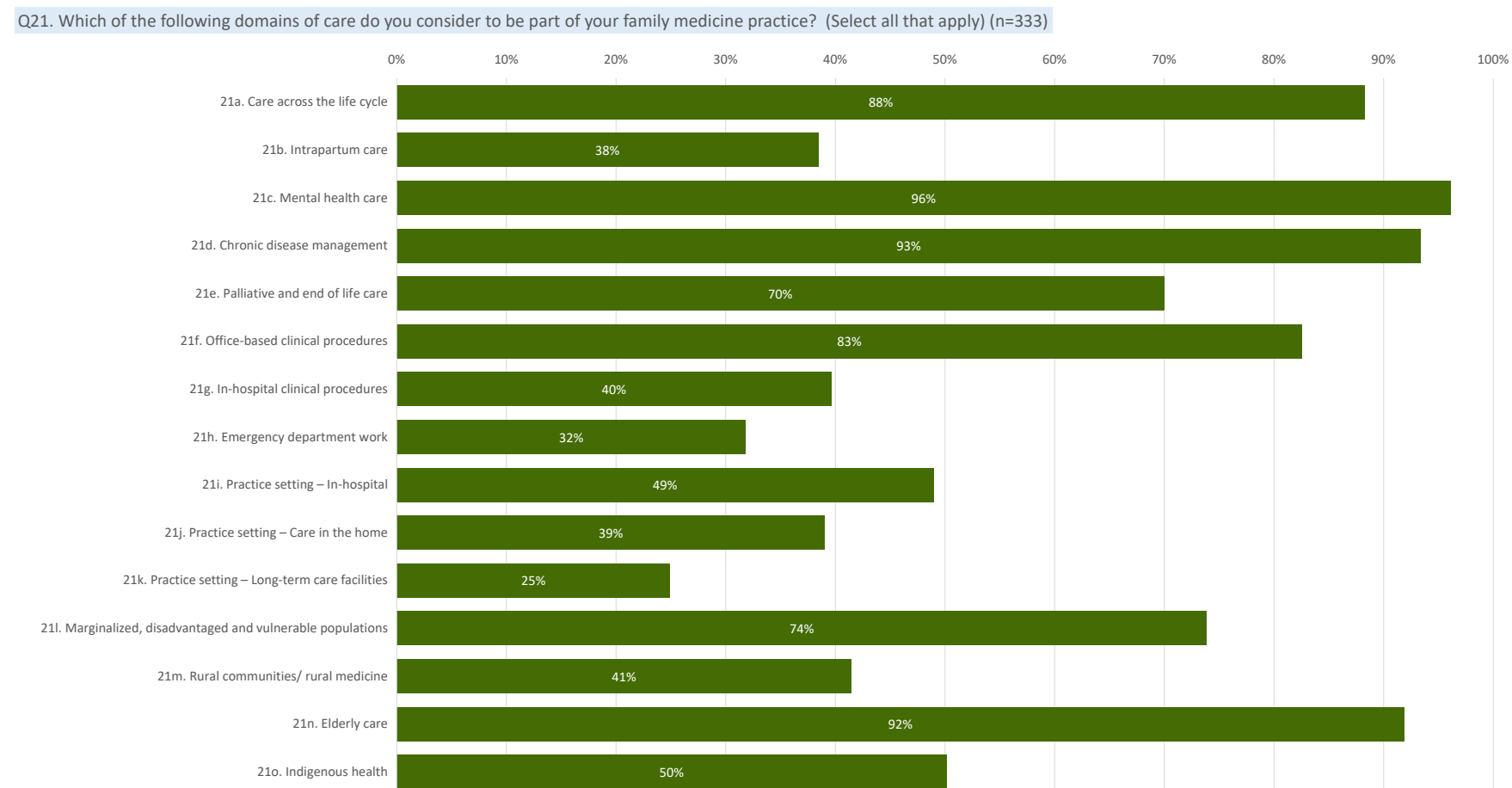
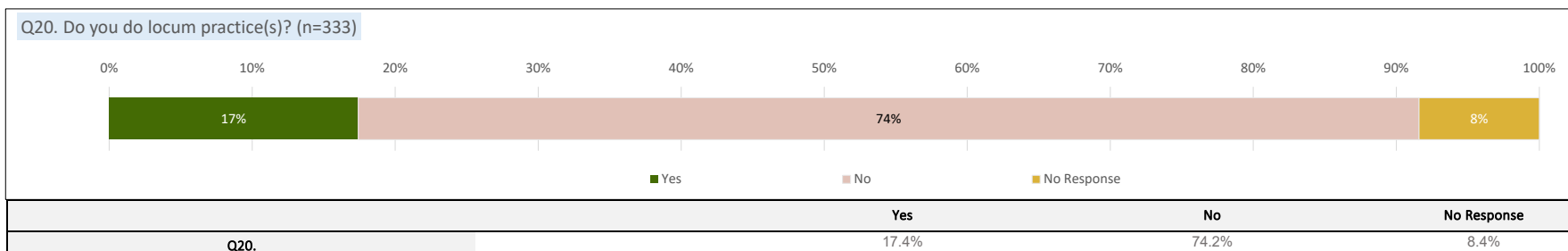
24.2%

31.8%

13.6%

9.1%



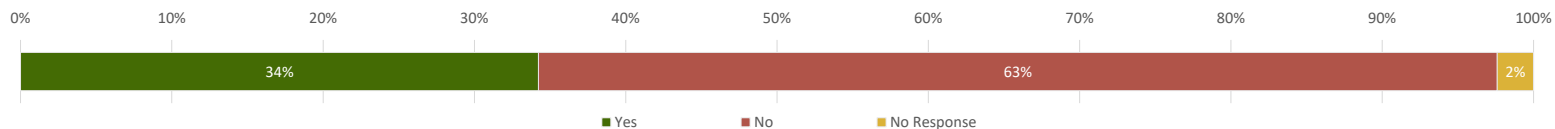


Q21. Which of the following domains of care do you consider to be part of your family medicine practice? (Select all that apply) (n=300)			
	Yes	No	No Response
Q21a	88.3%	9.9%	1.8%
Q21b	38.4%	59.5%	2.1%
Q21c	96.1%	2.1%	1.8%
Q21d	93.4%	4.8%	1.8%
Q21e	70.0%	27.9%	2.1%
Q21f	82.6%	15.6%	1.8%
Q21g	39.6%	58.6%	1.8%
Q21h	31.8%	66.1%	2.1%
Q21i	48.9%	48.6%	2.4%
Q21j	39.0%	59.2%	1.8%
Q21k	24.9%	73.3%	1.8%
Q21l	73.9%	24.3%	1.8%
Q21m	41.4%	56.8%	1.8%
Q21n	91.9%	6.3%	1.8%
Q21o	50.2%	48.0%	1.8%

21a-o. Please tell us why [Q21] is not part of your practice? (Select all that apply)									
	This domain is not an area of interest.	There are obstacles outside of my control preventing me.	I do not feel competent to provide care in this domain.	I do not feel confident to provide care in this domain.	I would include this domain in my practice if I had more training	I would include this domain in my practice if I had a mentor or someone to provide advice when needed	Other	No response	n
21a. Care across the life cycle	30.8%	2.6%	10.3%	15.4%	2.6%	7.7%	43.6%	17.9%	#
21b. Intrapartum care	64.4%	10.7%	28.8%	30.2%	8.8%	5.4%	17.6%	4.9%	#
21c. Mental health care	30.8%	7.7%	0.0%	0.0%	0.0%	0.0%	15.4%	46.2%	#
21d. Chronic disease management	36.4%	9.1%	0.0%	0.0%	0.0%	0.0%	22.7%	31.8%	#
21e. Palliative and end of life care	42.0%	4.0%	21.0%	27.0%	16.0%	15.0%	28.0%	10.0%	#
21f. Office-based clinical procedures	41.4%	15.5%	17.2%	19.0%	10.3%	8.6%	24.1%	13.8%	#
21g. In-hospital clinical procedures	56.2%	13.4%	19.9%	19.4%	7.0%	5.0%	19.9%	4.5%	#
21h. Emergency department work	65.6%	5.7%	31.7%	30.8%	13.7%	5.3%	10.1%	4.4%	#
21i. Practice setting – In-hospital	63.5%	12.9%	11.2%	14.7%	3.5%	5.3%	13.5%	6.5%	#
21j. Practice setting – Care in the home	66.5%	13.8%	2.0%	2.5%	0.0%	2.0%	17.7%	5.4%	#
21k. Practice setting – Long-term care facilities	71.2%	8.8%	2.8%	3.6%	2.4%	2.8%	16.0%	4.4%	#
21l. Marginalized, disadvantaged and vulnerable populations	44.8%	6.9%	6.9%	10.3%	4.6%	4.6%	26.4%	11.5%	#
21m. Rural communities/ rural medicine	49.2%	15.9%	5.1%	4.1%	2.1%	0.5%	27.2%	5.1%	#
21n. Elderly care	48.1%	3.7%	7.4%	7.4%	3.7%	7.4%	18.5%	22.2%	#
21o. Indigenous health	33.7%	16.3%	8.4%	5.4%	5.4%	7.8%	34.3%	6.6%	#

## F. Additional Training after Core FM Residency

Q22. Have you sought out further training after completing your core family medicine residency? (n=333)



Q22.

Yes

No

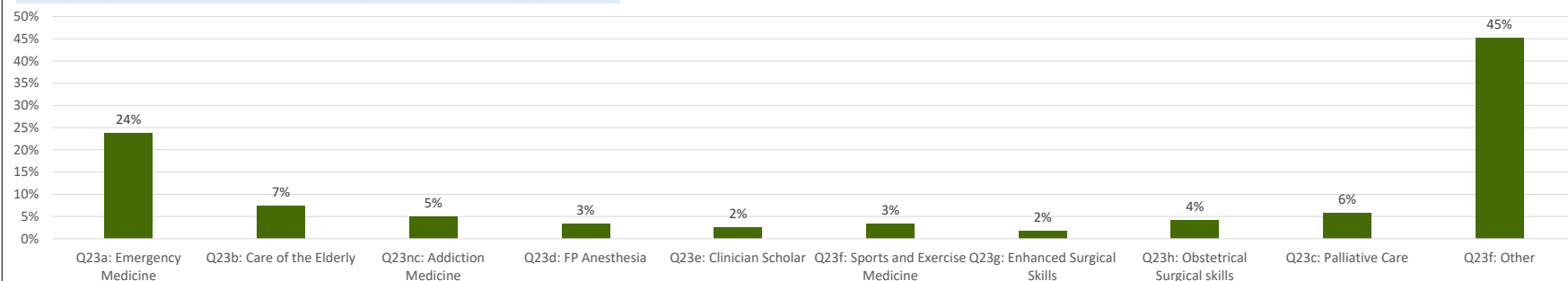
No Response

34.2%

63.4%

2.4%

Q23a-j. [If yes] In what area was the training? (Select all that apply) (n=122)



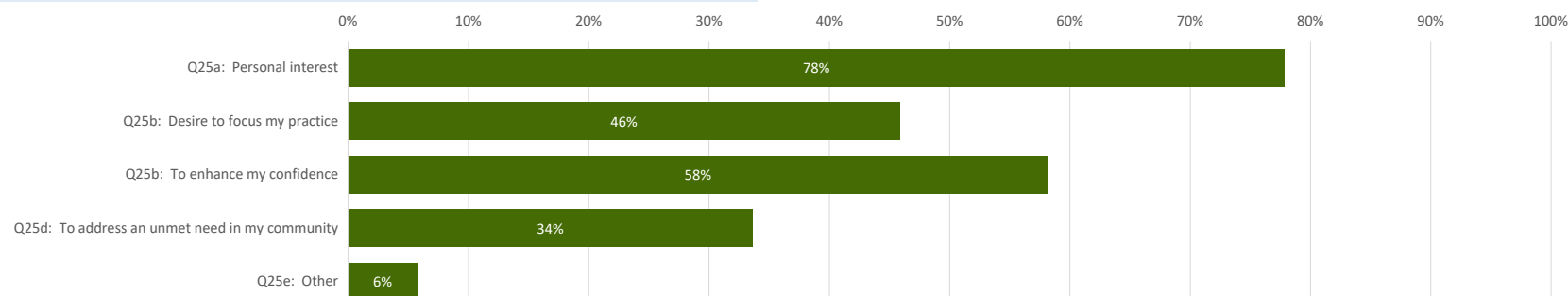
	Yes	No	No Response
Q23a	23.8%	69.7%	6.6%
Q23b	7.4%	86.1%	6.6%
Q23c	4.9%	88.5%	6.6%
Q23d	3.3%	90.2%	6.6%
Q23e	2.5%	91.0%	6.6%
Q23f	3.3%	90.2%	6.6%
Q23g	1.6%	91.8%	6.6%
Q23h	4.1%	89.3%	6.6%
Q23i	5.7%	87.7%	6.6%
Q23j	45.1%	48.4%	6.6%

24a-j. In which community setting were you practicing at the time of [Q23a-j] training?

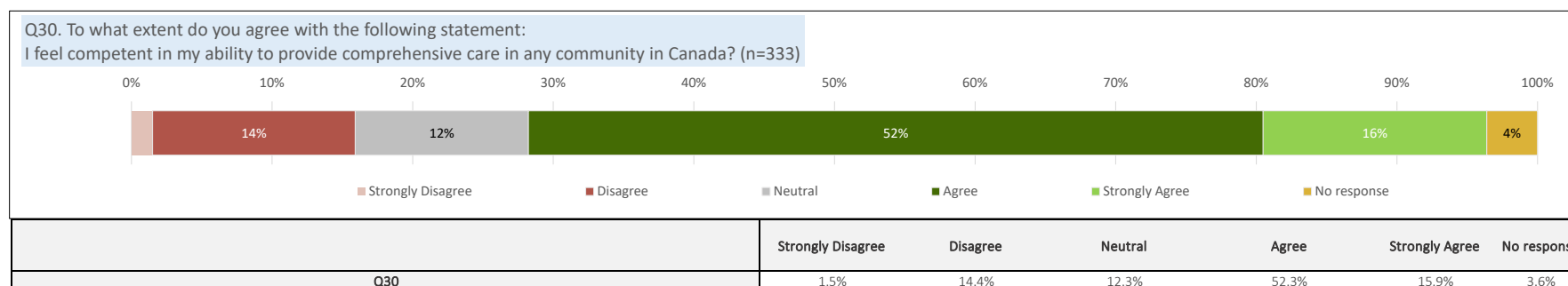
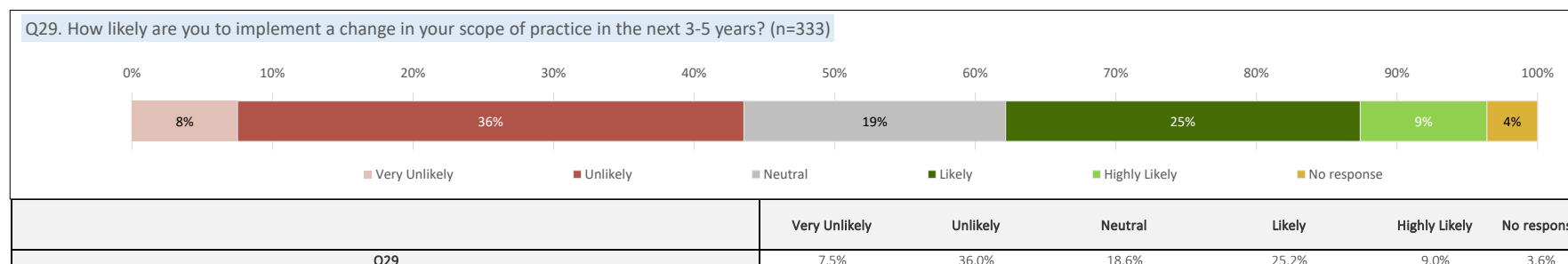
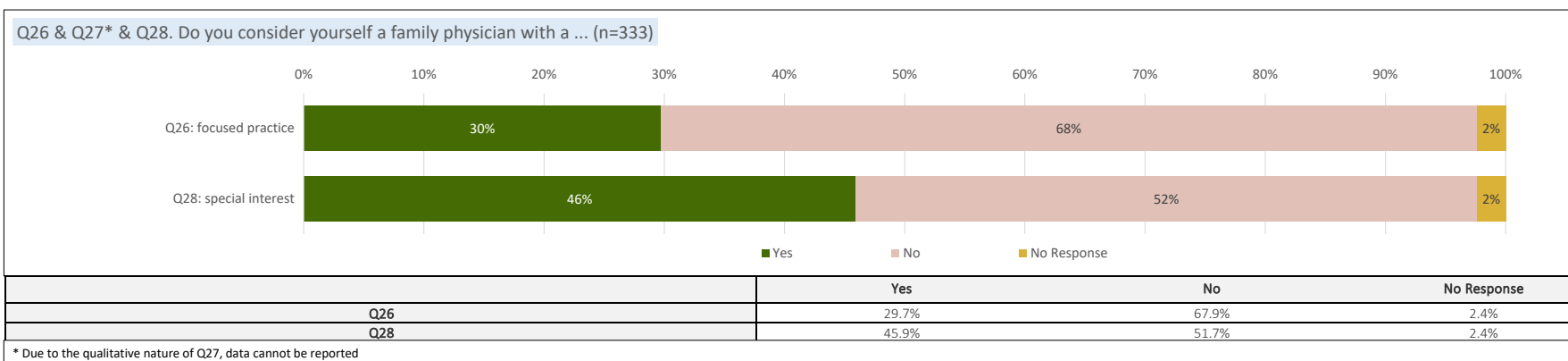
	Exclusively/ predominately marginalized, disadvantaged and vulnerable populations	Exclusively/ predominantly urban/suburban	Exclusively/ predominantly small town	Exclusively/ predominantly rural	Exclusively/ predominantly remote/isolated	Mixture of environments (please describe)	Training occurred immediately post- residency	n
Q24a: Emergency Medicine	0.0%	48.3%	17.2%	6.9%	6.9%	3.4%	17.2%	29
Q24b: Care of the Elderly	0.0%	66.7%	0.0%	0.0%	0.0%	0.0%	33.3%	9
Q24c: Addiction Medicine	0.0%	16.7%	50.0%	0.0%	33.3%	0.0%	0.0%	6
Q24d: FP Anesthesia	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	4
Q24e: Clinician Scholar	33.3%	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	3
Q24f: Sports and Exercise Medicine	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4
Q24g: Enhanced Surgical Skills	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	2
Q24h: Obstetrical Surgical skills	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5
Q24i: Palliative Care	0.0%	85.7%	0.0%	0.0%	0.0%	0.0%	14.3%	7
Q24j: Other	7.4%	46.3%	9.3%	9.3%	3.7%	7.4%	16.7%	55

Note: due to small n, "no response" was not included for these questions

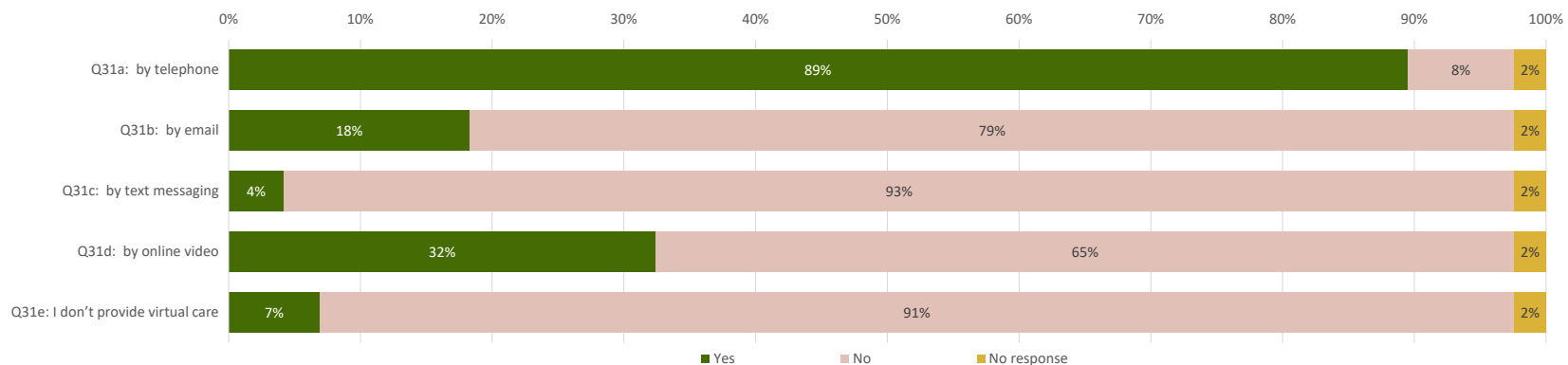
Q25. What were the main reason(s) you sought out further training? (Select all that apply) (n=122)



	Yes	No	No Response
Q25a	77.9%	15.6%	6.6%
Q25b	45.9%	47.5%	6.6%
Q25c	58.2%	35.2%	6.6%
Q25d	33.6%	59.8%	6.6%
Q25e	5.7%	87.7%	6.6%

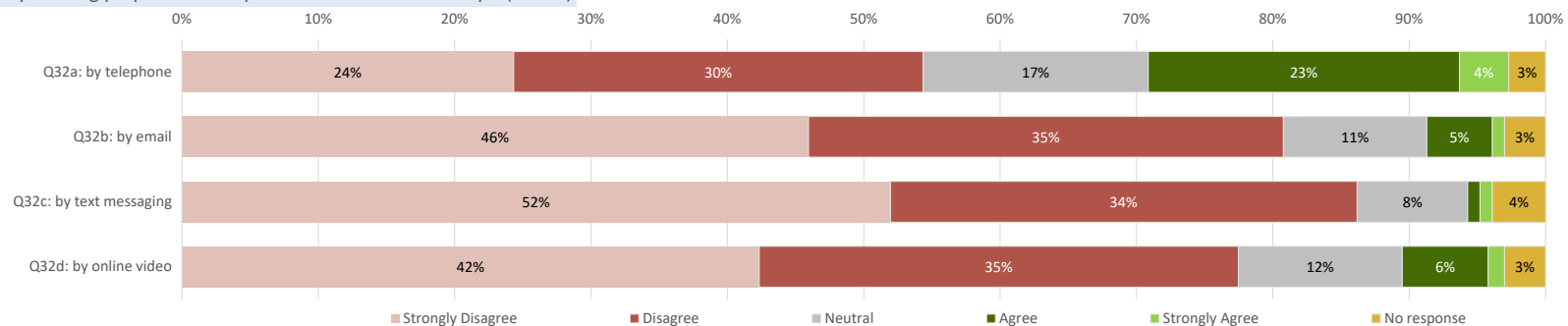


Q31. I provide virtual care delivery... (select all that apply) (n=333)



	Yes	No	No response
Q31a	89.5%	8.1%	2.4%
Q31b	18.3%	79.3%	2.4%
Q31c	4.2%	93.4%	2.4%
Q31d	32.4%	65.2%	2.4%
Q31e	6.9%	90.7%	2.4%

Q32. My residency training prepared me to provide virtual care delivery... (n=333)



	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No response
Q32a	24.3%	30.0%	16.5%	22.8%	3.6%	2.7%
Q32b	45.9%	34.8%	10.5%	4.8%	0.9%	3.0%
Q32c	52.0%	34.2%	8.1%	0.9%	0.9%	3.9%
Q32d	42.3%	35.1%	12.0%	6.3%	1.2%	3.0%

## Family Medicine Longitudinal Survey Time 3 (3 Years into Practice)

**Questions 1-3 are used to generate a Unique Identifier only. These are not available for request.**

**Note that the question numbering skips numbers and is occasionally out of order- this is intentional so that the question numbering matches that of the Masterfile.**

### Demographics

4. AGE - derived variable stratified by age category
5. Please enter your marital status
  - ☐ Single
  - ☐ Married
  - ☐ Common-law
  - ☐ Divorced/ Separated
  - ☐ Widowed
  - ☐ Prefer not to answer
6. Do you have children?
  - ☐ Yes/Expecting
  - ☐ No
  - ☐ Prefer not to answer
7. What is your gender?
  - ☐ Female
  - ☐ Male
  - ☐ Non-binary
  - ☐ Prefer not to answer
8. Select the ONE statement which best describes the environment in which you grew up prior to university.
  - ☐ Exclusively/ predominantly inner city
  - ☐ Exclusively/ predominantly urban/suburban
  - ☐ Exclusively/ predominantly small town
  - ☐ Exclusively/ predominantly rural
  - ☐ Exclusively/ predominantly remote/isolated
  - ☐ Mixture of environments (Please describe) \_\_\_\_\_

9. What year were you awarded your M.D. degree?

10. Which university awarded you your M.D. degree?

15. Select the ONE statement that best describes the environment in which you are currently practicing family medicine?

- ☐ Exclusively/ predominantly inner city
- ☐ Exclusively/ predominantly urban/ suburban
- ☐ Exclusively/ predominantly small town
- ☐ Exclusively/ predominantly rural
- ☐ Exclusively/ predominantly remote/ isolated
- ☐ Mixture of environments (Please describe: \_\_\_\_\_)

## About Your Residency

12. Looking back, to what extent do you agree or disagree with the following statements?

My core family medicine residency program prepared me to...

- a. ...Care for the full range of health problems that may be encountered in family medicine
- b. ...Care for patients at all life stages
- c. ...Care for patients in a range of clinical settings (e.g., office, hospital, home, etc.)
- d. ...Care for a range of populations (e.g., vulnerable, under-served, urban, rural, etc.)
- e. ...Provide care across the spectrum of clinical responsibilities, from prevention to palliation
- f. ...Provide continuous care to the same group of patients over the long term
- g. ...Use electronic medical and health records
- h. ...Work as part of a team with other types of health professionals
- i. ...Evaluate and improve the quality of your patient care
- j. ...Teach medical students, residents and other health profession learners

## Perceptions about Family Medicine

13. To what extent do you agree or disagree with the following statements?

- a. I am proud to be a family physician
- b. Patients recognize the value of family medicine.



- c. Patients believe that family physicians provide value above and beyond referring to other types of specialists.
- d. I have found that other medical specialists have little respect for the expertise of family physicians.
- e. Family physicians make a valuable contribution that is different from other specialists.
- f. I would prefer to be in another medical specialty
- g. Government perceives family medicine as essential to the health care system.

## Problem Solving and Learning

14. To what extent do you agree or disagree with the following statements?
- a. I sometimes feel overwhelmed when dealing with patients who present with complex or ambiguous health issues.
  - b. I can identify my own learning needs.
  - c. In spite of my best intentions, I rarely find the time to do the learning I need to stay up-to-date.
  - d. I know how to evaluate the accuracy and relevance of information before using it to inform my patients' care.
  - e. I can problem solve effectively when faced with complex or ambiguous patient presentations.

## Current Practice

16. Which of the following best describes the organizational model(s) you currently practice in? (Select one only)
- ☐ Solo practice
  - ☐ Group physician practice
  - ☐ Interprofessional team-based practice
  - ☐ Mixed practice (solo and group/or interprofessional practice)
  - ☐ Other, please specify... \_\_\_\_\_
17. Which of the following best describes your current practice type? (Select one only)
- ☐ Comprehensive care (see definition) practicing in one setting only (e.g. community office based practice only)
  - ☐ Comprehensive care (see definition) practicing in two or more clinical settings (e.g. in-hospital, long-term care, office- based)
  - ☐ Comprehensive care with a special interest (such as chronic pain, care of the elderly, palliative care, etc.) incorporated into practice

- Focused practice, providing care in one specific clinical area (e.g. sports medicine, emergency medicine)
- Other, please specify... \_\_\_\_\_

18. Do you provide comprehensive care to a current group of patients over the long term?

- Yes
- No

19. If no, what is your primary reason?

- I'm not interested in that type of practice
- My practice involves more episodic care without need for continuity
- I do locum practice(s)
- I'd like to, but there are obstacles preventing me

19a. Please explain your answer {{to above question}}:

20. Do you do locum practice(s)?

- Yes
- No

21p1. Which of the following domains of care do you consider to be part of your family medicine practice? (please select all that apply)

- a. Care across the life cycle (newborns, children and adolescents, adults, care of the elderly, palliative and end-of-life care)
- b. Intrapartum care
- c. Mental health care
- d. Chronic disease management
- e. Palliative and End of life care
- f. Office-based clinical procedures
- g. In-hospital clinical procedures
- h. Emergency departments work
- i. Practice setting – In-hospital
- j. Practice setting – Care in the home
- k. Practice setting – Long-term care facilities
- l. Marginalized, disadvantaged and vulnerable populations
- m. Rural communities/rural medicine
- n. Elderly care
- o. Indigenous health

21p2. Please tell us why {{domains previously selected}} is not part of your practice. (select all that apply)

- ☐ This domain is not an area of interest.
- ☐ There are obstacles outside of my control preventing me. Please describe: \_\_\_\_\_
- ☐ I do not feel competent to provide care in this domain
- ☐ I do not feel confident to provide care in this domain
- ☐ I would include this domain in my practice if I had more training
- ☐ I would include this domain in my practice if I had a mentor or someone to provide advice when needed
- ☐ Other, please specify \_\_\_\_\_

## Additional Training after Core FM Residency

22. Have you sought out further training after completing your core family medicine residency?

- ☐ Yes
- ☐ No

23. If yes, in what area was the training? (Check any that apply)

- ☐ Emergency Medicine
- ☐ Care of the Elderly
- ☐ Addiction Medicine
- ☐ Family Practice Anesthesia
- ☐ Clinician Scholar
- ☐ Sports and Exercise Medicine
- ☐ Enhanced Surgical Skills
- ☐ Obstetrical surgical skills
- ☐ Palliative Care
- ☐ Other, please specify... \_\_\_\_\_

24. If yes, in which community setting were you practicing at the time?

- ☐ Exclusively/ predominately marginalized, disadvantaged and vulnerable populations
- ☐ Exclusively/ predominantly urban/suburban
- ☐ Exclusively/ predominantly small town
- ☐ Exclusively/ predominantly rural
- ☐ Exclusively/ predominantly remote/isolated
- ☐ Mixture of environments (please describe \_\_\_\_\_)
- ☐ Training occurred immediately post-residency

25. If yes, what were the main reason(s) you sought out further training? (Select all that apply)

- ☐ Personal interest
- ☐ Desire to focus my practice
- ☐ To enhance my confidence

- To address an unmet need in my community
- Other, please specify... \_\_\_\_\_

26. Do you consider yourself a family physician with a focused practice? (Definition: Family Physicians with focused practices: family doctors with a commitment to one or more specific clinical areas as major part-time or full-time components of their practices.)

- Yes
- No

27. If yes, what clinical areas/domain(s) are the focus of your practice? (Please describe)

28a. Do you consider yourself a family physician with a special interest? (Definition: Family Physicians with special interests: family doctors with traditional comprehensive continuing care family practices who act as the personal physicians for their patients and whose practices include one or more areas of special interest as integrated parts of the broad scope of services they provide.)

- Yes
- No

28b. If yes, what areas of special interest do you include in the scope of services you provide? (Please describe)

29a. How likely are you to implement a change in your scope of practice in the next 3-5 years?

- Very Unlikely
- Unlikely
- Neutral
- Highly Likely
- Likely

29b. If Neutral/Likely/Very Likely please elaborate: \_\_\_\_\_

30. To what extent do you agree with the following statement?:

I feel competent in my ability to provide comprehensive care in any community in Canada.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

# A National Program Evaluation Approach to Study the Impact of Triple C

## Authors

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on behalf of the  
Triple C Competency Based Curriculum Task Force

### Suggested Citation:

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## BACKGROUND

Family medicine is prepared to evaluate whether or not the Triple C Competency-based Curriculum (Triple C) is meeting the mark. The goal of family medicine residency programs in Canada is to ensure that graduates are ready to begin practice in the specialty of family medicine in any community in Canada. The College of Family Physicians of Canada (CFPC), in partnership with the 17 university-based family medicine residency programs in Canada, has started to implement Triple C. Triple C aims to provide education to family medicine residents that is *comprehensive* in scope, focused on *continuity* of care and education, and through learning that is *centred* in family medicine.<sup>1</sup> Its intent is to ensure that new family physicians entering practice are ready to meet the evolving needs of Canadians.

To fulfill its social accountability to produce family physicians who meet the needs of the Canadian population, it is important that the academic family medicine community determine what role Triple C can have in influencing the type of family physicians produced, their type of practice patterns, and their location of practice. Family physicians who are able to provide comprehensive care and continuity of care focused on quality, and who are working in models of care that improve access and efficiencies, are key to the future of the health care system. This discussion paper provides a description of the program evaluation plan and logic model developed and approved in 2012 to describe the influence and impact of Triple C.

## THE CONTEXT OF FAMILY MEDICINE EDUCATION IN CANADA

The role of the postgraduate education system in Canada is to ensure that we have sufficient numbers of family physicians and other specialists who are distributed across the country and ready to provide care that responds to the ever-changing needs of Canada's dispersed population. The 17 university-based family medicine residency programs have collaborated extensively with the CFPC to provide family medicine education to more than 2,300 residents annually in more than 150 clinical training sites across Canada. Family medicine is the largest postgraduate residency program housed in each of the universities' faculties of medicine in Canada.

### Impact of family medicine on care

Evidence indicates that a strong primary care system that provides the population with access to effective primary care providers is correlated with better population health outcomes,<sup>2</sup> lower overall costs for patients with chronic disease,<sup>3</sup> reduced morbidity for patients who have multiple providers,<sup>4</sup> and enhanced ways to mitigate some of the negative impacts of social inequities.<sup>4</sup> Starfield and Shi (2004) found that medical services provided and coordinated by the patient's own personal primary care provider and team produces better health outcomes.<sup>2</sup> With this and other evidence in mind, the CFPC launched *A Vision for Canada*,<sup>5</sup> which strives for every person in Canada to have access to a family practice/primary care setting that serves as their *medical home*. The Patient's Medical Home (PMH) concept reflects the CFPC's goal to ensure that every Canadian has access to quality, focused health care through teams of health care professionals working collaboratively with family physicians in practices modeled after the PMH concept.<sup>5</sup> The PMH is the central hub for the timely provision and coordination of the comprehensive menu of health and medical services patients need.<sup>5</sup> The move toward the PMH comes at the same time as the CFPC advances its enhanced approach to family medicine residency education training. Triple C aims to ensure graduates are ready to begin the practice of comprehensive family medicine, ideally within a health care system that enables them to provide this type of care. From a practice level, the vision of the PMH provides one solution that can help support graduates of tomorrow.

## Family medicine education and its role in social accountability

Triple C was born from the need to identify the future needs of Canadians and to create a competency-based curriculum that would reflect and respond to these needs.<sup>1</sup> With the dedication of significant time and financial resources to the implementation of this new approach to education, it is critical to determine its impact. In an era that requires evidence more than rhetoric, a robust program evaluation is essential. With this in mind, the CFPC has launched an implementation plan based upon a logic model presented in this paper.

## DEVELOPING THE PROGRAM EVALUATION PLAN

The Triple C Competency Based Curriculum Task Force (Triple C Task Force), reporting to the CFPC's Section of Teachers Council, was charged with overseeing the development and implementation of a program evaluation plan for Triple C. Program evaluation implies the rigorous collection of valid, reliable, and useful information about a program for the purposes of one or more of the following: program and organizational improvement, oversight and compliance, assessment of merit or worth, and knowledge development.<sup>6</sup> The overarching purpose of Triple C program evaluation is to help the CFPC make decisions related to ongoing support for this enhanced approach to family medicine residency education. For this reason, a utilization-focused program evaluation plan<sup>7</sup> is being used with a threefold purpose:

1. To inform decisions about the Triple C curriculum as it is implemented
2. To understand the impact of Triple C on residents, faculty, departments, and the discipline of family medicine in Canada
3. To share lessons learned from implementation of a competency-based curriculum

Cathexis Consulting Inc. (<http://cathexisconsulting.ca/>) was hired to help create the plan with the Triple C Competency Based Curriculum Task Force (Triple C Task Force). It undertook a series of steps to create the recommended evaluation plan outlined in this paper.

## PROGRAM ACTIVITIES

Family medicine residency programs have already begun to transform their curricula and assessment methodologies across the country. Figure 1 provides a visual depiction of this process. Three basic building blocks exist for successful implementation of Triple C, which should be integrated and aligned:

1. Defining the educational outcomes that residents must achieve in order to successfully complete their programs. Educational outcomes should be based on the CanMEDS–Family Medicine (CanMEDS-FM) Roles\*<sup>8</sup> and/or the Evaluation Objectives<sup>9</sup> (ie, skills dimensions, phases of clinical encounter, priority topics, and key features).
2. Developing a full range of learning opportunities and contexts that will enable residents to achieve the defined educational outcomes. The opportunities and contexts should be intentional and should be comprehensive, allow for continuity of care and education, and be centred in family medicine. They should also reflect the clinical domains of family medicine.

\*Adapted from Frank JR, ed. The CanMEDS 2005 Physician Competency Framework. Better standards. Better physicians. Better care. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2005. Available from: <http://www.royalcollege.ca/portal/page/portal/rc/canmeds/resources/publications> Accessed 2013 Apr 21.

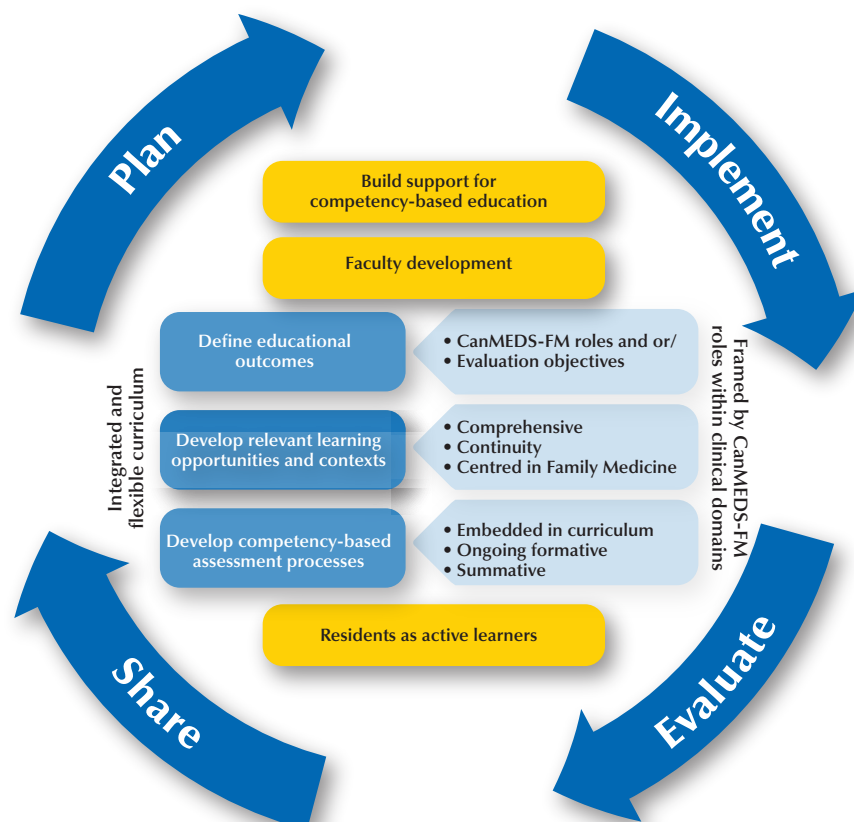
3. Establishing and embedding competency-based assessment processes into the curriculum that allow for ongoing formative assessment of learners. This step supports reflective learning and enables the resident and preceptors to identify and fill learning gaps early on in the resident's experience. It also supports a meaningful assessment of the resident's competence defined at the end of residency.

In addition to these three basic building blocks, several factors have been identified as critical to implementation:

- Building institutional support from senior leaders in the organization ensures that adequate resources are available to facilitate the change
- Faculty development will enable clinical teachers to fulfill expectations and enhance teaching methods that align with a competency-based approach
- As active learners, residents can take on enhanced responsibility for their learning, with teachers functioning more as guides or coaches
- Partnerships and networks within and between programs will ease sharing of knowledge and tools, which will facilitate the development and spread of effective practices

As shown in Figure 1, implementation of Triple C is neither a one-time event nor a linear process. It is an iterative, cyclical process of planning, implementing, evaluating, and course correcting that will occur over time. It also involves sharing successes and lessons learned with the broader family medicine education community.

**Figure 1. Process for Triple C implementation within family medicine residency programs**





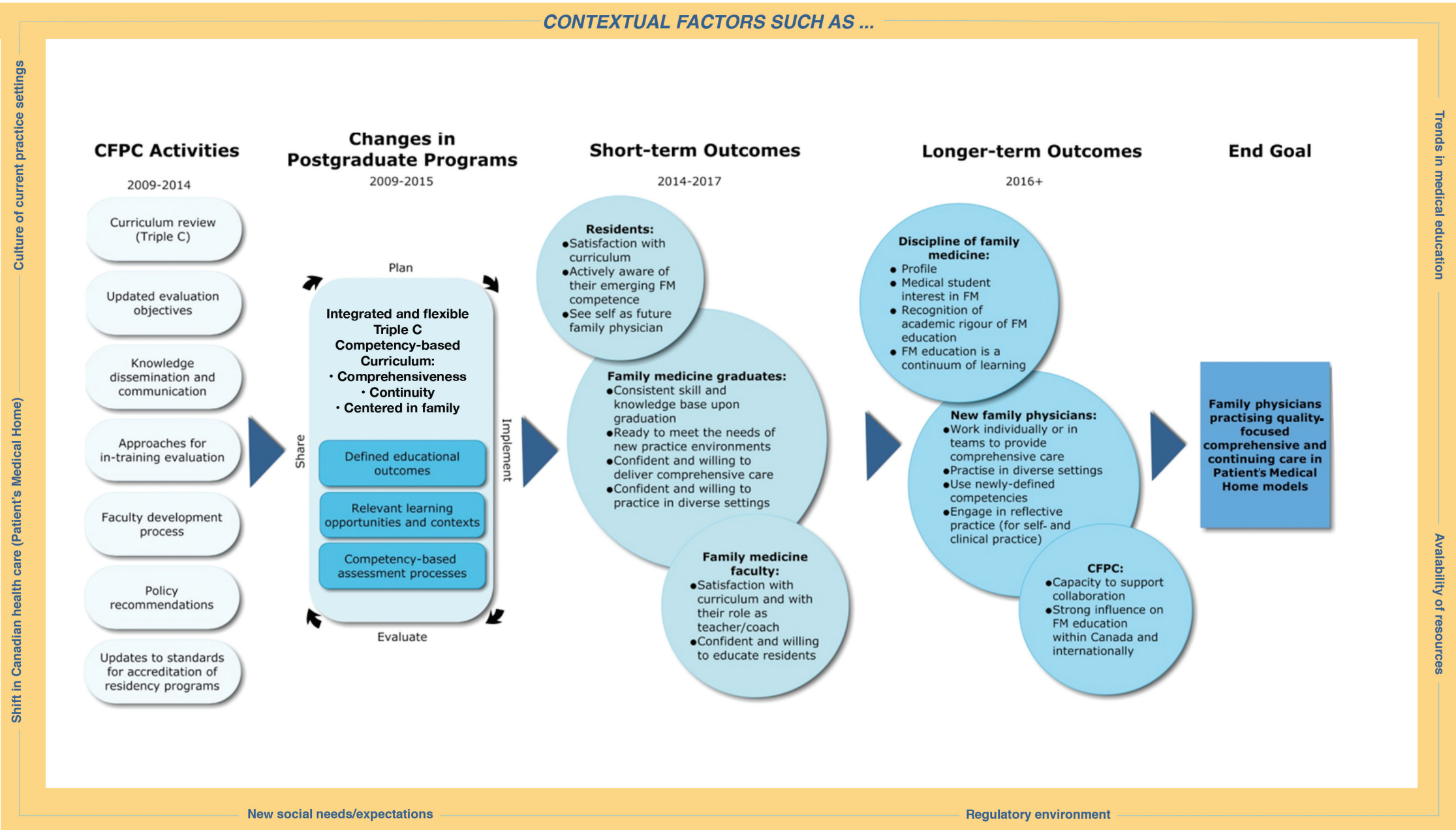
## ANTICIPATED OUTCOMES OF TRIPLE C

Figure 2 shows a “logic model” for Triple C, which demonstrates how the activities of the CFPC and the postgraduate family medicine programs are intended to produce specific short- and longer-term outcomes. The logic model provides a framework for what an activity aims to achieve. In creating the logic model for Triple C, interviews were conducted with key stakeholders including leaders at the CFPC, university program directors, postgraduate deans, family medicine residents, and CFPC education committee members. A limited literature review on evaluation of competency-based curriculum and curriculum change was conducted.<sup>10-17</sup> Finally, the authors undertook an extensive review of the CFPC documents related to elements of Triple C.

With respect to changes in programming, the short-term outcomes identified in the logic model reflect the immediate benefits anticipated for residents, new graduates, and faculty. These outcomes will likely start to be seen between 2014 and 2017, as the programs begin to change and the first cohorts of Triple C residents graduate. It is anticipated that these short-term outcomes will have positive impacts on the practice of family physicians, the CFPC, and the broader discipline of family medicine.

Along with other CFPC initiatives, Triple C should ultimately support CFPC’s end goal of family physicians practising quality-focused comprehensive and continuing care through models like the Patient’s Medical Home. Influenced by system factors (highlighted in yellow in the outer edges of Figure 2), the CFPC recognizes that Triple C is being developed and implemented within a broader context with factors beyond its control. Some of these factors include trends in medical education, availability of resources, the culture of current family practice settings, the regulatory environment, changes in the needs and expectations of the Canadian public, and trends in Canadian health care. These factors must be taken into consideration when interpreting potential outcomes related to Triple C. Although there will not be a way to show causation, the hope is that program evaluation will help to provide evidence of attribution related to Triple C. It is expected that over time, the outcomes might become more refined, and that the present logic model and program evaluation plan could change in response to further input from stakeholders.

Figure 2. Triple C logic model: A living document



## THE PROGRAM EVALUATION PLAN

The evaluation plan for Triple C was created to provide an understanding of the following:

1. The process of implementing Triple C: critically assessing its implementation in order to make further decisions about Triple C, improve elements of the curriculum, and fill knowledge gaps about competency-based education
2. Impact of Triple C: considering both short- and long-term outcomes on learners, faculty, the discipline, and the College itself

The program evaluation plan is national in scope; it aims to look for patterns and trends across all of the 17 family medicine programs and their clinical sites. It will not evaluate any of the programs or sites individually, although it will provide tools and generate data that the individual programs or sites can use for quality improvement.

The questions in Box 1 were approved by the Triple C Task Force to help guide the evaluation design, data collection, analysis, and reporting.

### Box 1. Triple C program evaluation questions

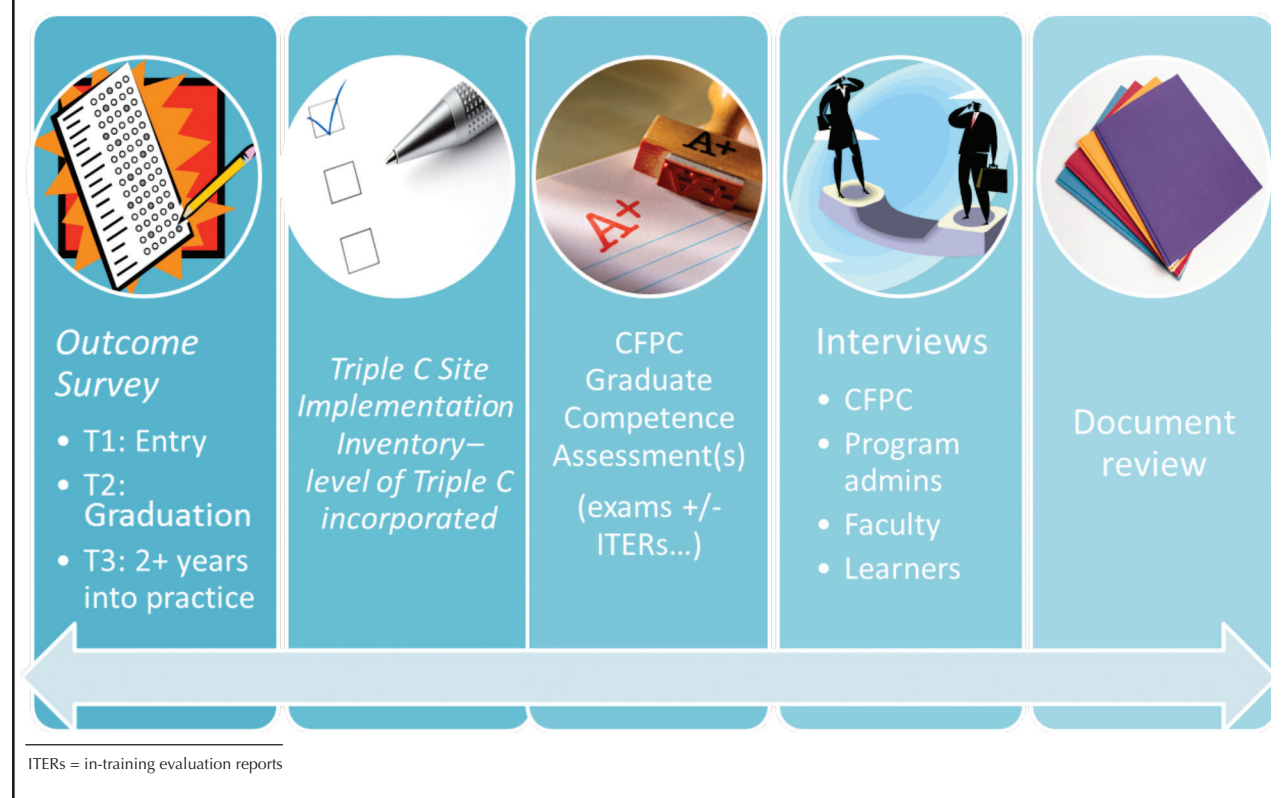
1. How has the Triple C curriculum been implemented at each of the 17 family medicine programs and clinical sites?
2. What implementation supports were provided by the CFPC, and how useful were they?
3. What lessons have been learned about effective implementation of Triple C?
4. What more is needed to support full implementation and sustainability of Triple C across Canada?
5. To what extent are intended short-term outcomes achieved for the following:
  - a) Residents?
  - b) Family medicine faculty?
  - c) Family medicine graduates?
6. To what extent are intended longer-term outcomes achieved for the following:
  - a) New family physicians?
  - b) The discipline of family medicine?
  - c) CFPC?
7. To what extent has Triple C contributed to changes in the intended outcomes?
8. What unintended outcomes have been observed?

## Data collection

Data for the program evaluation process is to be collected from a variety of stakeholders using a mixed-methods approach<sup>18</sup> (see Figure 3). The use of qualitative approaches to enable a dialogue with stakeholders is planned and should address evaluation questions 1 to 4. A process will be needed that

helps to uncover levels of implementation of the various elements of the Triple C by program. Use of the process on an ongoing basis by the family medicine programs will determine how and when Triple C is fully implemented by each program. The development of a “Triple C Residency Program Implementation Inventory” is being explored at this time.

**Figure 3. Data collection methods for the Triple C program evaluation plan**



To determine the potential outcomes of Triple C (evaluation questions 5 to 8), a means to track residents longitudinally from entrance into residency, graduation, and through to early independent practice is needed. A longitudinal survey tracking resident perspectives on Triple C and intentions to practise, starting from entrance into residency through to early independent practice, is currently at the pilot stage. Longitudinal surveys obtain data from learners highlighting potential short- and long-term outcomes. The Triple C Working Group for Survey Development at the CFPC has been initiated to help implement the survey pilot process. The Triple C Working Group for Survey Development will highlight findings of their work in future publications.

Program evaluation of Triple C is expected to be carried out over a 10+ year period. The years 2012 to 2013 will see family medicine programs develop and test the program evaluation methods, with the collection of baseline information anticipated in 2013. Data will continue to be collected periodically until approximately 2022. In the early years of the evaluation, the focus will be primarily on the implementation of Triple C, as well as on shorter-term outcomes. The information needs of CFPC, the family medicine programs, and other stakeholders could evolve over the course of the evaluation. Therefore, the evaluation plan will be developmental in nature. Based on the work of Patton (2008),<sup>7</sup> the evaluation will evolve so that it can be responsive to the changing context of family medicine and family medicine education. As Triple C becomes better established, the focus of the evaluation will shift to longer-term outcomes, allowing us to assess the degree to which Triple C addresses its original goals.

## Analysis

Because all of the residency programs will be implementing Triple C at a different pace, an experimental design cannot be used to evaluate its impact. Some programs and clinical sites have already begun to implement aspects of Triple C, while others have not.<sup>19</sup> An opportunity to describe programs according to level of implementation of Triple C is currently being examined. By clustering programs in this way, we will have a mechanism to compare and contrast differences and similarities across programs and to assess associations with learner outcome data from the longitudinal survey. Hypothetically, improvements in outcomes could be observed from the early adopters, then among the early majority, and finally, among the remaining programs.

Changes in outcomes might be difficult to interpret. Even with examining outcomes by implementation level, it will be challenging to draw conclusions about the impact of Triple C. There are many external factors that will have an impact on the desired outcomes and that will change the interpretation of the findings. For example, many of the contextual factors written around the edge of the logic model (Figure 2) point to paying attention to trends in medical education, funding, culture in current practice settings, regulatory environment, new societal needs and expectations, and shifts in Canadian health care. It will be important to collect information about these factors, and to take them into account when analyzing and interpreting the outcomes data.

Using the data collected from all methods, results will be interpreted with more rigour. Consistent evidence from different sources builds confidence in the results. In contrast, discrepancies among the findings from different sources require further exploration to determine the cause.

## FAMILY MEDICINE'S OPPORTUNITY

The program evaluation plan for the Triple C Competency-based Curriculum is the first that we are aware of to use a national approach to determine the impact of residency programs in family medicine. It is hoped that through what is learned, we will be able to identify what influence Triple C might have on education and the health care system in general. These success factors will need to be shared. Where critical challenges surface, the CFPC welcomes the opportunity to attempt to address them, in order to correct the course of Triple C and support our colleagues across the country who are committed to enhancing family medicine education. The opportunity to assess the influence of this curriculum on graduates, through the longitudinal survey, allows the CFPC and its university partners to understand the impact of education on the type of family physicians developed. The practice patterns can help us better understand if curriculum is able to influence both the type of family medicine practised (comprehensive vs focused) and the location of practice (any community in Canada). Ultimately, the data collected will provide perspectives on the impact of family medicine education on patient outcomes and system efficiencies.

## ACKNOWLEDGEMENTS

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