

# Health workers who ask about social determinants of health are more likely to report helping patients

## Mixed-methods study

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On behalf of the CLEAR Collaboration

### Abstract

**Objective** To assess the feasibility of implementing a clinical decision aid called the CLEAR Toolkit that helps front-line health workers ask their patients about social determinants of health, refer to local support resources, and advocate for wider social change.

**Design** A mixed-methods study using quantitative (online self-completed questionnaires) and qualitative (in-depth interviews, focus groups, and key informant interviews) methods.

**Setting** A large, university-affiliated family medicine teaching centre in Montreal, Que, serving one of the most ethnically diverse populations in Canada.

**Participants** Fifty family doctors and allied health workers responded to the online survey (response rate of 50.0%), 15 completed in-depth interviews, 14 joined 1 of 2 focus groups, and 3 senior administrators participated in key informant interviews.

**Methods** Our multimethod approach included an online survey of front-line health workers to assess current practices and collect feedback on the tool kit; in-depth interviews to understand why they consider certain patients to be more vulnerable and how to help such patients; focus groups to explore barriers to asking about social determinants of health; and key informant interviews with high-level administrators to identify organizational levers for changing practice.

**Main findings** Senior administrators consider asking about social determinants to be part of the mandate of health workers. However, barriers perceived by front-line clinicians include insufficient training in social history taking, uncertainty about how to address these issues in clinical practice, and a lack of knowledge of local referral resources. Health workers with specific ways of asking patients about their social challenges were more likely to report having helped their patients as compared with those who did not know how to ask (93.8% vs 52.9%;  $P = .003$ ).

**Conclusion** While health workers recognize the importance of social determinants, many are unsure how to ask about these often sensitive issues or where to refer patients. The CLEAR Toolkit can be easily adapted to local contexts to help front-line health workers initiate dialogue around social challenges and better support patients in clinical practice.

### EDITOR'S KEY POINTS

- There is increasing recognition that, to improve health, we need to develop strategies for increasing health equity. Despite a growing literature on the need for training, relatively few clinical tools are available to assist health workers in assessing patients' vulnerabilities and in knowing how to take action on the social determinants in practice.
- The CLEAR Toolkit was designed to guide health workers in treating the presenting health problem, asking about underlying social problems, referring to local social support resources, and advocating for more supportive environments for health. This study set out to determine whether family doctors and allied health workers would consider such a tool to be practical and useful in better supporting their patients and promoting larger social change.
- Participants understood the importance of the social determinants of health, but many were unsure how to take action. This was especially true for trainees and those unfamiliar with the local context and community resources available. Health workers considered the CLEAR Toolkit to be a helpful first step to guide them in asking patients about social issues and to know where to refer.

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# Les professionnels de la santé qui s'informent des déterminants sociaux sont plus susceptibles de signaler qu'ils ont aidé des patients

Étude par méthodes mixtes

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## Résumé

**Objectif** Évaluer la faisabilité de mettre en œuvre une aide à la décision clinique appelée la trousse d'outils CLEAR, qui aide les travailleurs de première ligne en santé à poser à leurs patients des questions concernant les déterminants sociaux de la santé, à les diriger vers des ressources d'entraide locales et à préconiser des changements sociaux plus larges.

**Conception** Une étude par méthodes mixtes, à l'aide de méthodes quantitatives (questionnaires remplis en ligne par les intéressés) et qualitatives (entrevues en profondeur, groupes témoins et entrevues avec des intervenants clés).

**Contexte** Un grand centre d'enseignement en médecine familiale, affilié à une université à Montréal, au Québec, desservant une des populations les plus diversifiées sur le plan ethnique au Canada.

**Participants** Cinquante médecins de famille et professionnels de la santé ont répondu au questionnaire en ligne (taux de réponse de 50%), 15 ont passé une entrevue en profondeur, 14 ont rejoint 1 de 2 groupes témoins et 3 administrateurs supérieurs ont participé à des entrevues visant les informateurs clés.

### POINTS DE REPÈRE DU RÉDACTEUR

- Il est de plus en plus reconnu que pour améliorer la santé, il faut élaborer des stratégies visant à accroître l'équité en santé. En dépit d'ouvrages multiples sur la nécessité de faire de la formation à cet égard, relativement très peu d'outils sont accessibles pour aider les professionnels de la santé à évaluer les vulnérabilités des patients et à savoir réagir face aux déterminants sociaux dans la pratique.
- La trousse d'outils CLEAR a été conçue pour guider les professionnels de la santé dans le traitement des problèmes de santé immédiats, le questionnement à propos de problèmes sociaux sous-jacents, l'aiguillage vers des ressources locales d'entraide sociale et la promotion d'environnements plus favorables à la santé. Cette étude visait à déterminer si les médecins de famille et les autres professionnels de la santé trouveraient cet outil pratique et utile pour mieux soutenir leurs patients et promouvoir un changement social plus large.
- Les participants comprenaient l'importance des déterminants sociaux de la santé, mais bon nombre d'entre eux n'étaient pas certains des mesures à prendre. C'était particulièrement le cas des stagiaires et de ceux qui n'étaient pas familiers avec le contexte local et les ressources communautaires à leur disposition. Les professionnels de la santé ont trouvé que la trousse d'outils CLEAR était utile comme première étape pour les guider lorsqu'ils posaient des questions aux patients concernant leurs problèmes sociaux et pour déterminer où diriger les patients.

Cet article a fait l'objet d'une révision par des pairs.  
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**Méthodes** Notre approche à méthodes multiples comportait un sondage en ligne auprès de professionnels de la santé de première ligne pour évaluer les pratiques actuelles et recueillir des commentaires sur la trousse d'outils; des entrevues en profondeur visant à comprendre pourquoi ils considéraient certains patients comme étant plus vulnérables et comment aider ces patients; des groupes de discussion pour explorer les obstacles au questionnement sur les déterminants sociaux de la santé; et des entrevues d'informateurs clés avec des administrateurs de haut niveau pour déceler des leviers organisationnels susceptibles de changer les pratiques.

**Principales constatations** Les administrateurs supérieurs estiment que les questions à propos des déterminants sociaux de la santé font partie du mandat des professionnels de la santé. Par ailleurs, parmi les obstacles perçus par les cliniciens de première ligne figurent le manque de formation en anamnèse sociale, l'incertitude quant aux façons précises d'aborder ces problèmes dans la pratique clinique et une connaissance insuffisante des ressources de soutien locales. Les professionnels de la santé qui avaient des façons précises de poser des questions aux patients à propos de leurs défis sociaux étaient plus nombreux à signaler qu'ils avaient aidé des patients que ceux qui ne savaient pas comment les questionner (93,8 c. 52,9%;  $p = ,003$ ).

**Conclusion** Les professionnels de la santé reconnaissent l'importance des déterminants sociaux, mais bon nombre d'entre eux sont incertains quant à la façon de questionner les patients à propos de ces problèmes souvent délicats ou encore ne savent pas où référer ces patients. La trousse d'outils CLEAR peut aisément être adaptée aux contextes locaux pour aider les professionnels de la santé de première ligne à amorcer un dialogue entourant les problèmes sociaux et mieux aider les patients dans la pratique clinique.

Good health cannot be achieved by focusing solely on treating disease.<sup>1</sup> It is well known that there are systematic, avoidable, and unjust differences in health between countries, with variations in life expectancy of up to 40 years between the richest and poorest nations.<sup>2-5</sup> Even within rich (and poor) countries there are considerable health gaps among specific population subgroups, such as young single mothers, indigenous persons, immigrants and refugees, and those with mental health problems.<sup>6-8</sup> Some studies have shown, for instance, that homeless persons in Canada have a life expectancy that is 40 years less than the population average.<sup>9,10</sup> These differences in health status are attributed to the *social determinants of health*, defined by the World Health Organization as “the circumstances in which people are born, grow, live, work, and age.”<sup>11</sup>

There is increasing recognition that, to improve health, we need to develop strategies for increasing health equity (ie, reducing avoidable health differences among different population subgroups).<sup>12</sup> While education, labour, law enforcement, and other sectors need to be involved in policy and community development to create supportive environments for health,<sup>13</sup> the health sector also has an important role to play.

The Canadian Medical Association considers training health workers to address the social determinants of health to be one of the key principles for promoting more equitable health outcomes for patients, families, and communities.<sup>14</sup> However, this training is only starting to be integrated in medical education<sup>15,16</sup> and in primary care practice. Despite a growing literature on the need for training,<sup>17-20</sup> few tools are available to assist clinicians in assessing and taking action on patients' self-reported vulnerabilities like precarious employment, housing problems, difficulties accessing child care, or domestic violence. Most available clinical practice tools look only at a single facet of vulnerability such as income or ethnicity.<sup>21-27</sup> However, vulnerabilities have a tendency to cluster, and different vulnerabilities might require different pathways for finding solutions. For instance, authors of the ACE (Adverse Childhood Experiences) study demonstrated that more than one-quarter of adults in their cohort study had suffered multiple adverse childhood experiences (including various forms of abuse or neglect, living with a household member with drug addiction or other mental health problems, witnessing the abuse of a parent, parental separation or divorce, and parental incarceration),<sup>28</sup> and that there is a dose-response relationship in terms of poor health and social outcomes in later life.<sup>29</sup> We therefore need a more nuanced and multifaceted approach to identifying and managing vulnerabilities in practice.

Established in 2010, the CLEAR Collaboration brought together a group of international researchers and policy makers with the goal of creating an evidence-based

clinical decision aid that could easily be adapted to local contexts to help front-line health workers tackle the social determinants of health, particularly in low- and middle-income countries.<sup>30</sup> The CLEAR Toolkit guides health workers in treating the immediate health problem, asking about underlying social problems, referring to local social support resources, and advocating for more supportive environments for health.

This study set out to determine whether family doctors and allied health workers in a large family medicine practice serving a highly ethnically diverse inner-city population would consider such a tool to be practical and useful in better supporting their patients and promoting larger social change.

## METHODS

### Study setting and design

The tool kit was piloted at St Mary's Hospital Family Medicine Centre, a community-based, university-affiliated teaching unit located in an inner-city neighbourhood in Montreal, Que, with a very high proportion of newly arrived immigrants and refugees. A multimethod study<sup>31-33</sup> carried out from July 2013 to June 2014 explored facilitators and barriers to addressing social determinants of health in clinical practice using an online self-completed survey, in-depth interviews, and focus groups with health workers, as well as key informant interviews with senior health administrators to better understand the structural and organization factors involved. We obtained ethics approval from the institutional review board of the St Mary's Research Centre.

### Participants

We contacted family physicians, family medicine residents, nurses, and nurse practitioners currently working at the family medicine centre who were on the e-mail mailing list of the centre. Nurses and nurse practitioners were included because they have an integral role in the family medicine practice and are often involved in helping to manage complex health and social challenges (eg, providing counseling, referral to the centre local de services communautaires). We also conducted key informant interviews with a purposive sample of senior health administrators to understand barriers and levers for institutional change. We excluded medical students and nonclinical staff from the study (eg, secretaries, medical records clerks, orderlies, security personnel).

### Sample size

At the time of the study there were 100 health workers at the family medicine centre (40 family doctors, 50 residents, 8 nurses, and 2 nurse practitioners). Based on this total population size, we would need 50 respondents

to obtain a 10% margin of error with a 95% confidence level.<sup>34</sup> As we anticipated that there would be a relatively low response rate given the existing literature on family doctor surveys,<sup>35</sup> and even though we used multiple approaches to obtain the best response rate possible,<sup>36</sup> we nonetheless decided to send the questionnaire to all eligible health workers (excluding medical students and nonclinical staff) to maximize the number of responses. We continued the in-depth interviews until data saturation was reached (15 in-depth interviews). We conducted 2 focus groups with 6 to 8 health workers in each group, and 3 key informant interviews with senior health administrators.

### Data collection

**Survey.** We sent an e-mail invitation to the 100 front-line health workers with an electronic version of the draft tool kit and a link to an online self-completed survey. We sent 2 e-mail reminders (5 and 10 days after the initial mailing) and left a paper version of the questionnaire in their mailboxes (ie, the third and final reminder). The survey questions covered 7 domains: characteristics of the health workers, experience in caring for vulnerable and disadvantaged patients, first impressions of the CLEAR Toolkit, willingness to use the tool kit, suggestions for improvements, how best to distribute the tool kit, and recommendations for reinforcing a social determinants approach in clinical practice. For instance, we asked, “Do you have specific ways of asking patients about potentially sensitive topics such as poverty, structural racism, food insecurity, family violence, and so forth?” and “In caring for patients who are vulnerable or marginalized, was there anything you said or did that you considered particularly helpful for these patients?” with prompts to provide more detailed explanations of their answers. The final page of the survey asked whether the respondent would be willing to participate in a 20- to 30-minute individual interview.

**Interviews and focus groups.** The semistructured interview guide sought to better understand why respondents considered certain patients to be more vulnerable and how to best care for such patients. The interview guide for the focus groups explored the barriers and facilitators to using a social determinants of health approach from the health worker perspective, and sought to understand why some people were early adopters of such an approach and how to encourage late adopters to become more involved. The key informant interview guide looked at structural or organizational factors for creating a culture shift in clinical practice.

We used snowball sampling<sup>37</sup> to recruit participants for the in-depth interviews. We attempted to recruit health workers representing different occupations, ages, sexes, levels of training, and years since graduation.

We recruited focus group participants following a routine weekly academic half-day educational program. We asked each participant whether he or she agreed with the statement that “Every clinical encounter is an opportunity to talk with patients about potential social challenges underlying their health problems.” Based on their answers, about half of the participants joined 1 of 2 groups—those who agreed unequivocally and those who disagreed, were not entirely in agreement, or were unsure. Finally, we recruited participants for the key informant interviews from a sample of high-level administrators with decision-making power within St Mary’s Hospital, the family medicine centre, and the McGill family medicine residency training program.

### Data analysis

**Survey.** Survey questionnaire data were initially tabulated and analyzed using the built-in basic summary statistics capabilities of the online data collection software.<sup>38</sup> Statistical analysis of the downloaded data relied on SAS software, version 9.3. Statistical significance was assessed at an  $\alpha$  level of .05. Open-ended responses were coded into categories and reviewed by 2 independent researchers (A.N., A.A.) to check reliability.

**Interviews and focus groups.** We audiotaped and transcribed verbatim all interviews and focus groups. Data analysis proceeded according to a combined deductive-inductive thematic analysis, as described in Crabtree and Miller.<sup>39</sup> We created an initial deductive coding frame consisting of 5 broad categories based on the research questions. Within each of these categories, 2 independent researchers (A.N., A.A.) identified and coded themes and issues that emerged within the data. The researchers compared their coding, resolved disagreements, and then coded all remaining transcripts of interviews, focus groups, and key informant interviews.

## RESULTS

Of the 100 health workers invited to participate in the survey, 50 responded (response rate of 50.0%). Most participants (**Table 1**) were family doctors and family medicine residents (28 of 50, 56.0%). About half were female (24 of 50, 48.0%), younger than 40 years of age (23 of 50, 46.0%), and still in training or had completed their training fewer than 10 years ago (22 of 50, 44.0%). Because family medicine residents were included in this survey, we had a sample that was younger than family medicine respondents to the National Physician Survey (35.3% [1631 of 4626] younger than 45 years of age) and the family doctor population overall (39.5% [10 739 of 27 195] younger than 45 years).<sup>40</sup>

**Table 1. Demographic characteristics of survey participants**

CHARACTERISTICS	CLEAR TOOLKIT CLINICAL DECISION AID SURVEY, 2013, N (%)	NPS, 2013, N (%)	TOTAL POPULATION OF FAMILY DOCTORS IN CANADA IN 2013 (N=27 195), N (%)
Response rate*	50 (50.0)	4626 (17.0)	NA
Sex			
• Female	24 (48.0)	2212 (47.8)	11 831 (43.5)
• Male	9 (18.0)	2011 (43.5)	15 085 (55.5)
• No response	17 (34.0)	403 (8.7)	279 (1.0)
Age, y <sup>†</sup>			
• Younger than 40 (or 45)	23 (46.0)	1631 (35.3)	10 739 (39.5)
• 40 (or 45) and older	10 (20.0)	2593 (56.1)	16 391 (60.3)
• No response	17 (34.0)	402 (8.7)	65 (0.2)
Professional category			
• Family doctor or GP	13 (26.0)	4626 (100.0)	27 195 (100.0)
• Family medicine resident	15 (30.0)	NA	NA
• Allied health worker (eg, nurse)	5 (10.0)	NA	NA
• No response	17 (34.0)	NA	NA
Professional experience <sup>‡</sup>			
• Still in training	15 (30.0)	NA	NA
• Training (or licensed) < 10 y ago	7 (14.0)	1166 (25.2)	NA
• Training (or licensed) ≥ 10 y ago	11 (22.0)	3099 (67.0)	NA
• No response	17 (34.0)	361 (7.8)	NA

NA—not applicable, NPS—National Physician Survey.

\*Overall, 50 of 100 participants responded to the clinical decision aid survey and 4626 of 27 195 physicians responded to the NPS.

<sup>†</sup>In our survey the cutoff for age was 40 y; in the NPS and overall family doctor population data, 45 y is used.

<sup>‡</sup>Our survey asked time since completion of specialty training; the NPS asked years since licensed to practice.

## Main themes

The results of this study are presented here by integrating the responses to the survey, the 15 interviews, the 2 focus groups, and the 3 key informant interviews, around 5 main themes.

### *Why do health workers consider certain patients to be more vulnerable?*

Most survey respondents (Table 2) reported having been involved in caring for a range of vulnerable patients including recent immigrants and refugees, single parents, and isolated seniors. During the in-depth interviews, respondents explained that the reasons why certain groups were more vulnerable included being unable to navigate the local health system, being a victim of violence, and lacking an adequate social support network. Respondents believed that vulnerable patients often had greater health needs, but if one did not reach out to these patients and continue to follow closely, they most likely would not get the care they needed. According to one respondent,

If you don't follow them they can get lost in the system ... they disappear in the wind. A lot of them could become homeless ... so you are there to keep a watchful eye on these people. So at least they know somebody else is watching over them ... the fact that they have a link to us, you know, as physicians and nurses, they feel that somebody cares about them and supports them and actually cares for their well-being.

### *Are health workers already asking about and taking action on social determinants?*

Most respondents agree that it is the role of health workers to address the underlying social issues of their patients (44 of 50, 88.0%). According to one respondent, "I think that patients really trust their doctors, especially their family doctors ... they want an interaction with their family doctor to guide them with their problems." However, only one-third of respondents had specific ways of asking their patients about potentially sensitive topics (Box 1) such as poverty, structural racism, food insecurity, family violence, and other social conditions that can lead to or exacerbate

**Table 2. Key findings from the survey**

SURVEY QUESTION	N (%)
Respondent involved in caring for vulnerable or marginalized patients (N=50)	
• Persons with mental health problems	46 (92.0)
• Recent immigrants and refugees	44 (88.0)
• People living in poverty	41 (82.0)
• Single parents	39 (78.0)
• Persons with substance abuse and addiction problems	39 (78.0)
• Isolated seniors	38 (76.0)
• Young children from disadvantaged households	33 (66.0)
• Victims of abuse and neglect	25 (50.0)
• Indigenous persons	25 (50.0)
Respondent believes it is the role of health workers to address the social determinants of health (N=50)	
• Yes	44 (88.0)
• No	0 (0.0)
• Unsure	6 (12.0)
Respondent has specific ways of asking patients about sensitive topics such as food insecurity, racism, and family violence (N=49)	
• Yes	16 (32.7)
• No	18 (36.7)
• Unsure	15 (30.6)
Respondent has said or done things that have helped vulnerable or marginalized patients (N=48)	
• Yes	33 (68.8)
• No	5 (10.4)
• Unsure	10 (20.8)
Respondent finds the CLEAR Toolkit clinical decision aid* (N=37) ...	
• Is clearly written	37 (100.0)
• Is relevant to my work	33 (89.2)
• Can help me address the social causes of poor health	32 (86.5)
• Can help me interact with my patients	31 (83.8)
• Is useful in my local context	28 (75.7)
• Has inspired me to take on larger social action	21 (56.8)

\*Respondents who strongly agree or agree.

health problems (16 of 49, 32.7%). A key finding of this study (Table 3) is that when health workers have specific ways of asking patients about the social causes of poor health, almost all of them report having been able to help their patients address these issues (15 of 16), whereas only half of those who do not have ways of asking believe that they have helped their patients (15 of 16, 93.8%, vs 9 of 17, 52.9%;  $P=.003$ ). Health workers mentioned multiple ways of helping their vulnerable patients including nonjudgmental listening, being empathetic, and supporting their patients in problem solving (Box 2). According to one respondent, “the most important thing is to refer them to the right community resources, taking the time to explain how they work and how to access them.” Another said, “Listen to the

person; sometimes just listening you find out what is most important to that person and work with them on that issue—it may not be the one that you think is the most important!”

**When health workers do not ask and do not take action, why not?** The main barriers to asking patients about the social causes of poor health include lack of training, lack of role models, being unclear whether this is part of their mandate, and time constraints. One family medicine resident said,

For me I think it is really a very good idea because I know these things are important, but I don’t always know what to do. How do I approach this or that or

whatever? I think we got less training about vulnerable populations, and that can be hard.

Another resident stated, “I know the social issues exist, but often I am unsure of what questions to ask to address them or how to integrate them into my

interview.” A senior administrator considered this to already be part of resident training, although perhaps something that still needs to be developed further:

We have encouraged our residents in the past to consider this as part of their career obligations once they practise. And we have also in the past encouraged some of them to do this as a part of a resident project.

Another administrator also suggested that senior physicians should be more involved in asking about social issues and should act as role models for their residents.

**Box 1. Examples of how health workers ask patients about social determinants of health**

Begin with nonjudgmental, open-ended questions.

- How are you doing?
- How is it going at home?
- How is your family situation?
- Can you tell me about the struggles in your life?
- Are you having difficulties in any particular area?

Follow this with direct questioning to better understand the key issues.

- Social isolation: Are you married or single? With whom do you live? Is the father of the baby aware of your pregnancy?
- Violence: Do you feel safe at home? Have you ever felt threatened? How do you resolve conflict at home?
- Food insecurity: How are you eating? What do you eat? In the past month have you found yourself worrying about how you would put food on the table?
- Housing problems: Where do you live? How many rooms do you have? Do you have any problems with mold, cockroaches, or mice?
- Unemployment and precarious employment: How are you supporting yourself? How is your work situation? Do you work? What kind of work do you do? Has your recent job change created financial stress?
- Poverty: Are you worried about making ends meet at the end of the month? Do you have financial problems? Do you feel able to pay your rent and food? Do you have concerns about being able to afford all the expenses for your future baby?

Then assess social support and existing resource use.

- Do you have relatives here?
- Do you have any close friends if you need help?
- Have you ever used a food bank or other community resource?

**What is helpful about the CLEAR Toolkit and what could be improved?** Most respondents found the tool kit to be clearly written (37 of 37, 100.0%), relevant to their work (33 of 37, 89.2%), and helpful for them to address the social causes of poor health (32 of 37, 86.5%). About half agreed that it would change the way they practised (18 of 37, 48.6%) and that it had inspired them to take on larger social actions related to social determinants of health (21 of 37, 56.8%). According to one family medicine resident,

Yes, I like the format: the treat, ask, refer, advocate. I think that is very helpful. It is a simplified message and it also says that you are not alone, just because you ask about it does not mean that you are taking it all on your shoulders.

Another respondent also appreciated the multifaceted nature of the tool kit:

The interesting thing about the tool kit is that it is just addressing certain questions ... to determine if this person is doing OK. Depending on how they answer the questions then you can identify the areas that need more support. So I find that is critical.

Participants recommended that the tool kit be shortened and simplified, and include a list of key referral resources for each social issue (eg, food insecurity, family violence),

**Table 3. Bivariate association of health workers having specific ways of asking patients about social determinants of health and having taken action to help vulnerable patients: N = 47.**

HEALTH WORKER HAS SPECIFIC WAYS OF ASKING PATIENTS ABOUT VULNERABILITY	HEALTH WORKER HAS TAKEN ACTION TO HELP SUPPORT VULNERABLE PATIENTS			TOTAL, N (%)	P VALUE
	YES, N (%)	NO, N (%)	UNSURE, N (%)		
Yes	15 (93.8)	0 (0.0)	1 (6.2)	16 (34.0)	.003*
No	9 (52.9)	5 (29.4)	3 (17.6)	17 (36.2)	
Unsure	8 (57.1)	0 (0.0)	6 (42.9)	14 (29.8)	
Total	32 (68.1)	5 (10.6)	10 (21.3)	47 (100.0)	

\*Fisher exact test P value, P < .05.

**Box 2. What health workers are doing to support their vulnerable patients**

Understanding and acknowledging the patient's social situation

- Providing a safe space and being approachable
- Asking about the patient's social context
- Listening with a nonjudgmental attitude
- Using the services of a translator as needed
- Finding out what is most important to that person
- Showing empathy and concern about his or her situation
- Letting the patient know that I understand his or her situation
- Normalizing and destigmatizing the patient's situation
- Telling the patient that he or she is not alone

Being aware of and referring to resources available in the community

- Asking patients if they are aware of specific programs and resources that can help
- Exploring with patients what they can do to help themselves
- Referring to social worker and local community services
- Explaining how these support resources work
- Motivating patients in seeking help
- Involving the team nurse in patients' care
- Showing them that I support them in their choices

Being supportive and following up over time

- Accommodating patient needs (eg, not having to miss work to visit the clinic)
- Writing letters to government authorities (eg, help relative get travel visa to care for newborn)
- Letting them know I am there for anything if they need help
- Following up on their social issues at future visits

Engaging in community-level action

- Community involvement and supporting local organizations (eg, board member, donations)
- Conducting research and publishing articles on vulnerable populations
- Volunteering in clinics that serve specific vulnerable populations (eg, refugee clinic)
- Outreach programs in the community (eg, sexual health education in local schools)
- Setting up a non-governmental organization or specific clinic for marginalized groups if one does not exist
- Advocacy and activism (eg, lobbying for policy change)
- Voting for a political party that believes in social justice

including telephone numbers to facilitate the referral process. They also suggested there should be more content on how to influence policy and build community partnerships to create more supportive environments for health, rather than “putting on band-aids” after people are already suffering from complex health and social issues.

**What could be the effects of using the tool kit in practice?** Most respondents agreed that the CLEAR

Toolkit should be distributed to physicians, nurses, and medical residents (28 of 30, 93.3%), as well as to social workers (26 of 30, 86.7%) and outreach workers (25 of 30, 83.3%). They suggested that widespread use of the tool kit could potentially have multiple effects including improving health worker knowledge of social determinants, changing clinical practice to be more supportive of vulnerable patients, empowering patients and connecting them to local resources, improving the health and social situation of patients, and reducing “revolving door” medicine and unnecessary emergency visits. According to one respondent, the effect of the tool kit to support vulnerable patients “could be measured by the fact that they are still walking into your office and they are still alive. They haven’t committed suicide and somebody hasn’t killed them.”

**DISCUSSION**

Our study suggests that family doctors are routinely involved in caring for a range of vulnerable patients and understand the importance of addressing the social determinants of health, but more training and clinical practice tools are needed to help busy front-line health workers in better supporting their patients.

The CLEAR Toolkit is an evidence-based and user-friendly clinical decision aid designed to help health workers assess different aspects of patient vulnerability in a sensitive and caring way and easily identify key referral resources in their local area<sup>41</sup> (also, A. Andermann et al, data not yet published). Our study found that health workers who had ways of asking patients about their social problems were more likely to report having helped their patients with these issues. These results are consistent with previous studies in which delivery of culturally competent care<sup>25</sup> and understanding the social context of patients were important factors in patient-centred care.<sup>42</sup> This can also have important implications for adherence to medical treatment and better understanding reasons underlying noncompliance.<sup>43,44</sup> Educating health professionals about the social determinants of health, providing practical guidance on how to ask patients about social problems, and linking patients to supportive resources have been identified as important interventions for promoting the health of marginalized and disadvantaged patients.<sup>45-47</sup>

**Strengths and limitations**

We used a multimethod study to better understand the complexities of encouraging health workers to incorporate a social determinants approach into their clinical practice. While the response rate for the survey component of the study was only 50.0%, it is well known that busy family doctors are difficult to recruit in research

studies,<sup>48,49</sup> and thus the response rate is broadly what one expects from this specific study population.<sup>50</sup> Those who did respond to the survey did not always answer all of the questions, resulting in more missing data, limiting our ability to assess associations. Nonrespondents are typically senior, male, and in practice for more than 15 years.<sup>51</sup> Possibly related to self-selection of responders, we found a slightly higher proportion of health workers with specific ways of asking their patients about potential social issues than an earlier published study did.<sup>52</sup> It would therefore be interesting to further explore possible sex relationships involved in support of a social determinants approach.

### Implications for policy and practice

In this study, front-line health workers largely understood the importance of the social determinants of health such as education, financial stress, living conditions, discrimination, and social participation, which are known to affect health outcomes from the cradle to the grave.<sup>53</sup> However, many family doctors were unsure how to take action on these determinants in day-to-day practice. This was especially true for trainees and those unfamiliar with the local context and community resources available. Health workers considered the CLEAR Toolkit to be a helpful first step to guide them in asking patients about social issues and to know where to refer. Strong organizational support and buy-in is also needed to ensure the use of such an approach in practice. Implementation in different settings will require adaptation of the tool kit informed by local health worker trainers and community group organizers to identify effective referral pathways for support resources and to build stronger linkages with the local community.

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#### Contributors

**Dr Naz** participated in the data collection and analysis, and drafted the manuscript. **Drs Rosenberg, Andersson, and Labonté** participated in the design of the study. **Dr Andermann** participated in the design of the study, coordinated data collection, participated in analysis of the data, and drafted the manuscript. All of the authors critically reviewed the manuscript for intellectual content and approved the final manuscript.

#### Competing interests

None declared

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#### References

1. World Health Organization. *Health in the post-2015 development agenda. Briefing paper 1*. Geneva, Switz: World Health Organization; 2012. Available from: [www.who.int/topics/millennium\\_development\\_goals/post2015/healthinthepost\\_briefing\\_20120921.pdf?ua=1](http://www.who.int/topics/millennium_development_goals/post2015/healthinthepost_briefing_20120921.pdf?ua=1). Accessed 2015 Apr 10.
2. Ribet C, Melchior M, Lang T, Zins M, Goldberg M, Leclerc A. Characterisation and measurement of social position in epidemiologic studies [article in French]. *Rev Epidemiol Sante Publique* 2007;55(4):285-95.
3. Evans RG, Barer ML, Marmor TR, editors. *Why are some people healthy and others not? The determinants of health of populations*. Hawthorne, NY: Aldine De Gruyter; 1994.
4. Irwin A, Valentine N, Brown C, Loewenson R, Solar O, Brown H, et al. The Commission on Social Determinants of Health: tackling the social roots of health inequities. *PLoS Med* 2006;3(6):e106.
5. Ridde V, Guichard A, Houéto D. Social inequalities in health from Ottawa to Vancouver: action for fair equality of opportunity. *Promot Educ* 2007;(Suppl 2):12-6 (Eng), 44-7 (Fr).
6. Marmot M. Social determinants of health inequalities. *Lancet* 2005;365(9464):1099-104.
7. Friel S, Marmot MG. Action on the social determinants of health and health inequities goes global. *Annu Rev Public Health* 2011;32:225-36.
8. Keon WJ, Pepin L. *Population health policy: issues and options. Fourth report of the Subcommittee on Population Health of the Standing Senate Committee on Social Affairs, Science and Technology*. Ottawa, ON: Senate Subcommittee on Population Health, Senate of Canada; 2008. Available from: [www.parl.gc.ca/Content/SEN/Committee/392/soci/rep/rep10apr08-e.pdf](http://www.parl.gc.ca/Content/SEN/Committee/392/soci/rep/rep10apr08-e.pdf). Accessed 2015 Apr 10.

9. Hwang SW, Wilkins R, Tjepkema M, O'Campo PJ, Dunn JR. Mortality among residents of shelters, rooming houses, and hotels in Canada: 11 year follow-up study. *BMJ* 2009;339:b4036.
10. Condon S, McDermaid J. *Dying on the streets: homeless deaths in British Columbia*. Vancouver, BC: Street Corner Media Foundation; 2014. Available from: [www.spcw.mb.ca/files/9914/1539/3362/HomelessnessVancouverReport.pdf](http://www.spcw.mb.ca/files/9914/1539/3362/HomelessnessVancouverReport.pdf). Accessed 2015 Apr 8.
11. Commission on the Social Determinants of Health. *Closing the gap in a generation: health equity through action on the social determinants of health*. Geneva, Switz: World Health Organization; 2008. Available from: [www.who.int/social\\_determinants/thecommission/finalreport/en/](http://www.who.int/social_determinants/thecommission/finalreport/en/). Accessed 2015 Apr 10.
12. Mikkonen J, Raphael D. *Social determinants of health. The Canadian facts*. Toronto, ON: York University School of Health Policy and Management; 2010.
13. World Health Organization. *Ottawa charter for health promotion*. Geneva, Switz: World Health Organization; 1986. Available from: [www.who.int/healthpromotion/conferences/previous/ottawa/en/](http://www.who.int/healthpromotion/conferences/previous/ottawa/en/). Accessed 2015 Apr 10.
14. Canadian Medical Association. *Health equity and the social determinants of health: a role for the medical profession. CMA policy*. Ottawa, ON: Canadian Medical Association; 2013. Available from: <https://www.cma.ca/Assets/assets-library/document/en/advocacy/PD13-03-e.pdf>. Accessed 2015 Apr 10.
15. Wosogba T, Betancourt JR, Conyers FG, Estape ES, Francois F, Gard SJ, et al. Prioritizing health disparities in medical education to improve care. *Ann N Y Acad Sci* 2013;1287:17-30. Epub 2013 May 9.
16. Klein MD, Kahn RS, Baker RC, Fink EE, Parrish DS, White DC. Training in social determinants of health in primary care: does it change resident behavior? *Acad Pediatr* 2011;11(5):387-93. Epub 2011 Jun 2.
17. Goodyear-Smith F, Warren J, Bojic M, Chong A. eCHAT for lifestyle and mental health screening in primary care. *Ann Fam Med* 2013;11(5):460-6.
18. Goodyear-Smith F, Arroll B, Sullivan S, Elley R, Docherty B, Janes R. Lifestyle screening: development of an acceptable multi-item general practice tool. *N Z Med J* 2004;117(1205):U1146.
19. Goodyear-Smith F, Arroll B, Tse S. Asian language school student and primary care patient responses to a screening tool detecting concerns about risky life style behaviours. *N Z Fam Physician* 2004;31(2):84-9.
20. Spitzer RL, Kroenke K, Williams JB, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med* 2006;166(10):1092-7.
21. Bloch G. *Poverty: a clinical tool for primary care in Ontario*. Toronto, ON: Department of Family and Community Medicine, University of Toronto; 2012. Available from: [www.waterloowellingtondiabetes.ca/userContent/documents/Professional-Resources/poverty-and-medicine-march-2013.pdf](http://www.waterloowellingtondiabetes.ca/userContent/documents/Professional-Resources/poverty-and-medicine-march-2013.pdf). Accessed 2015 Apr 10.
22. Vaucher P, Bischoff T, Diserens EA, Herzog L, Meystre-Agustoni G, Panese F, et al. Detecting and measuring deprivation in primary care: development, reliability and validity of a self-reported questionnaire: the DiPCare-Q. *BMJ Open* 2012;2(1):e000692.
23. Chatelard S, Bodenmann P, Vaucher P, Herzog L, Bischoff T, Burnand B. General practitioners can evaluate the material, social and health dimensions of patient social status. *PLoS One* 2014;9(1):e84828.
24. Bowen S, Botting I, Jeannine R. *Promoting action on equity issue: a knowledge-to-action handbook*. Edmonton, AB: School of Public Health, University of Alberta; 2011. Available from: [www.wrha.mb.ca/professionals/language/files/EquityIssues-Handbook.pdf](http://www.wrha.mb.ca/professionals/language/files/EquityIssues-Handbook.pdf). Accessed 2015 Apr 10.
25. Puget Sound Health Alliance. *Addressing health equity in race, ethnicity and language in the Puget Sound region. A toolkit for improving the quality of care*. Seattle, WA: Puget Sound Health Alliance; 2013. Available from: [www.wacomunitycheckup.org/Media/Default/Documents/alliance\\_health\\_equity\\_toolkit.pdf?AspxAutoDetectCookieSupport=1](http://www.wacomunitycheckup.org/Media/Default/Documents/alliance_health_equity_toolkit.pdf?AspxAutoDetectCookieSupport=1). Accessed 2015 Apr 10.
26. Finding Answers. *FAIR toolkit: strategies, levels, modes*. Chicago, IL: Robert Wood Johnson Foundation, University of Chicago; 2011. Available from: [www.solvingdisparities.org/sites/default/files/finding\\_answers\\_flashcards2.pdf](http://www.solvingdisparities.org/sites/default/files/finding_answers_flashcards2.pdf). Accessed 2015 Apr 10.
27. Prevention Institute. *Health equity and prevention primer*. Oakland, CA: Prevention Institute; 2010. Available from: [www.preventioninstitute.org/tools/focus-area-tools/health-equity-toolkit.html](http://www.preventioninstitute.org/tools/focus-area-tools/health-equity-toolkit.html). Accessed 2015 Apr 10.
28. Van Niel C, Pachter LM, Wade R Jr, Felitti VJ, Stein MT. Adverse events in children: predictors of adult physical and mental conditions. *J Dev Behav Pediatr* 2014;35(8):549-51.
29. Andra RF, Felitti VJ, Bremner JD, Walker JD, Whitfield C, Perry BD, et al. The enduring effects of abuse and related adverse experiences in childhood. A convergence of evidence from neurobiology and epidemiology. *Eur Arch Psychiatry Clin Neurosci* 2006;256(3):174-86. Epub 2005 Nov 29.
30. CLEAR Collaboration [website]. Montreal, QC: McGill University; 2015. Available: [www.mcgill.ca/clear](http://www.mcgill.ca/clear). Accessed 2015 Apr 10.
31. Choosing a mixed methods design. In: Creswell JW, Plano Clark VL, editors. *Designing and conducting mixed methods research*. 2nd ed. Thousand Oaks, CA: Sage Publications; 2011. p. 53-106.
32. Morse J. Principles of mixed methods and multimethod research design. In: Tashakkori A, Teddlie C, editors. *Handbook of mixed methods in social and behavioural research*. Thousand Oaks, CA: SAGE Publications; 2003. p. 339-52.
33. Esteves J, Pastor J. Using a multimethod approach to research enterprise systems implementations. *Electron J Bus Res Methods* 2004;2:69-82.
34. Altman D. *Practical statistics for medical research*. London, Engl: Chapman and Hall; 1990.
35. Martin BC. *Don't survey physicians!* Chicago, IL: Center for Health Services Research and Development, American Medical Association; 1974.
36. VanGeest JB, Johnson TP, Welch JL. Methodologies for improving response rates in surveys of physicians: a systematic review. *Eval Health Prof* 2007;30(4):303-21.
37. Patton MQ. *Qualitative evaluation and research methods*. Beverly Hills, CA: Sage Publications; 1990.
38. SurveyMonkey [website]. Palo Alto, CA: SurveyMonkey; 2016. Available from: [www.surveymonkey.com](http://www.surveymonkey.com). Accessed 2016 Oct 14.
39. Crabtree BF, Miller WL, editors. *Doing qualitative research. Research methods for primary care. A template approach to text analysis: developing and using codebooks*. Thousand Oaks, CA: Sage Publications; 1992.
40. National Physician Survey [website]. *2013 Results for family physicians*. Mississauga, ON: College of Family Physicians of Canada, Canadian Medical Association, Royal College of Physicians and Surgeons of Canada; 2013. Available from: <http://nationalphysiciansurvey.ca/result/2013-results-for-family-physicians/>. Accessed 2015 Nov 25.
41. Andermann A; CLEAR Collaboration. Taking action on the social determinants of health in clinical practice: a framework for health professionals. *CMAJ* 2016 Aug 8. Epub ahead of print. Available from: [www.cmaj.ca/content/early/2016/08/08/cmaj.160177.extract](http://www.cmaj.ca/content/early/2016/08/08/cmaj.160177.extract). Accessed 2016 Oct 13.
42. Betancourt JR. Cultural competency: providing quality care to diverse populations. *Consult Pharm* 2006;21(12):988-95.
43. Neal RD, Lawlor DA, Allgar V, Colledge M, Ali S, Hassey A, et al. Missed appointments in general practice: retrospective data analysis from four practices. *Br J Gen Pract* 2001;51(471):830-2.
44. Kennedy J, Erb C. Prescription noncompliance due to cost among adults with disabilities in the United States. *Am J Public Health* 2002;92(7):1120-4.
45. O'Brien MJ, Garland JM, Murphy KM, Shuman SJ, Whitaker RC, Larson SC. Training medical students in the social determinants of health: the Health Scholars Program at Puentes de Salud. *Adv Med Educ Pract* 2014;5:307-14.
46. Canadian Medical Association. *Health care transformation in Canada. Physicians and health equity: opportunities in practice*. Ottawa, ON: Canadian Medical Association; 2011. Available from: <https://www.cma.ca/Assets/assets-library/document/en/advocacy/Health-Equity-Opportunities-in-Practice-Final-e.pdf>. Accessed 2016 Oct 14.
47. Harris E, Harris MF, Madden L, Wise M, Sainsbury P, Macdonald J, et al. Working in disadvantaged communities: what additional competencies do we need? *Aust New Zealand Health Policy* 2009;6:10.
48. Pit SW, Vo T, Pyakurel S. The effectiveness of recruitment strategies on general practitioner's survey response rates—a systematic review. *BMC Med Res Methodol* 2014;14:76.
49. Pit SW. *Improving quality use of medicines for older people in general practice. A cluster randomized controlled trial [doctoral thesis]*. Newcastle, UK: University of Newcastle; 2005.
50. Kellerman SE, Herold J. Physician response to surveys. *Am J Prev Med* 2001;20(1):61-7.
51. Wiebe ER, Kaczorowski J, MacKay J. Why are response rates in clinician surveys declining? *Can Fam Physician* 2012;58:e225-8. Available from: [www.cfp.ca/content/58/4/e225.full.pdf+html](http://www.cfp.ca/content/58/4/e225.full.pdf+html). Accessed 2016 Oct 13.
52. Fenton. *Health care's blind side. The overlooked connection between social needs and good health*. Princeton, NJ: Robert Wood Johnson Foundation; 2011. Available from: [www.rwjf.org/en/library/research/2011/12/health-care-s-blind-side.html](http://www.rwjf.org/en/library/research/2011/12/health-care-s-blind-side.html). Accessed 2015 Apr 10.
53. Silva Vde L, Cesse EÁ, de Albuquerque Mde F. Social determinants of death among the elderly: a systematic literature review. *Rev Bras Epidemiol* 2014;17(Suppl 2):178-93.

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