

The MUN Med Gateway Project

Marrying medical education and social accountability

Pauline Duke MD FCFP Fern Brunger PhD

Abstract

Problem addressed Access to a continuum of care from a family physician is an essential component of health and well-being; however, refugees have particular barriers in accessing medical care.

Objective of program To provide access to family physicians and continuity of care for newly arrived refugees; to provide opportunities for medical students to practise cross-cultural health care; and to mentor medical students in advocacy for underserved populations.

Program description The MUN Med Gateway Project, based at Memorial University of Newfoundland in St John's, is a medical student initiative that partners with the local refugee settlement agency to provide health care for new refugees to the province. Medical students conduct in-depth medical histories, with provision of some basic physical screening, while working through an interpreter with supervision by a family doctor and settlement public health nurse. Each patient or family is matched with a family physician.

Conclusion The project's adaptation of student-run clinics, which connects refugees with the existing mainstream medical system, has been an overwhelming success, making it a model for community action as an educational strategy.

EDITOR'S KEY POINTS

- The MUN Med Gateway Project at Memorial University of Newfoundland in St John's adopts the model of student-run clinics but departs substantially in its design. Rather than providing medical care directly, the goal is to connect refugees with the existing mainstream medical system, avoiding many of the challenges faced by student-run clinics.
- The overwhelming success of this project makes it a model for the use of community action as an educational strategy to help students gain exposure to cross-cultural medicine early in their careers.
- Further research will examine whether and how cross-cultural clinical competencies are enhanced by the experience and the extent to which medical student graduates of the Gateway project, who are now residents within the family medicine program, seek opportunities for further engagement with refugee patients.

This article has been peer reviewed.
Can Fam Physician 2015;61:e81-7

Le projet Med Gateway de l'Université Memorial à Terre-Neuve

Allier éducation médicale et responsabilité sociale

Pauline Duke MD FCFP Fern Brunger PhD

Résumé

Problème à l'étude L'accès à un continuum de soins par un médecin de famille demeure une composante essentielle de la santé et du bien-être; toutefois, les réfugiés se heurtent à des obstacles particuliers pour accéder à ce type de service.

Objectif du programme Permettre à des réfugiés récemment arrivés d'avoir accès à des médecins de famille et à des soins continus; offrir aux étudiants en médecine une occasion de prodiguer des soins interculturels; et les aider à plaider en faveur des populations défavorisées.

Description du programme Instauré à l'Université Memorial de Terre-Neuve, le projet Med Gateway est une initiative d'étudiants en médecine qui, en partenariat avec l'agence locale pour les établissements de réfugiés, prodigue des soins de santé aux réfugiés nouvellement arrivés dans la province. Les étudiants recueillent les antécédents médicaux complets et effectuent un examen physique de dépistage, et ce, avec l'aide d'un interprète et sous la supervision d'un médecin de famille et d'une infirmière en santé publique spécialisée en établissement. Patients ou familles sont tous jumelés à des médecins de famille.

POINTS DE REPÈRE DU RÉDACTEUR

- Le projet Med Gateway de l'Université Memorial à Terre-Neuve utilise le modèle des cliniques tenues par des étudiants, mais s'en distingue considérablement dans sa conception. Plutôt que de dispenser directement des soins à une population défavorisée, il vise à faire connaître aux réfugiés le système médical traditionnel existant, ce qui permet d'éviter plusieurs des difficultés auxquelles font face les cliniques tenues par des étudiants.
- Le succès retentissant de ce projet en fait un modèle du recours à l'action communautaire en tant que stratégie éducative pour permettre aux étudiants d'être exposés à une médecine interculturelle tôt dans leur carrière.
- Il faudra d'autres études pour vérifier si et comment l'expérience acquise dans ce projet par les étudiants en médecine améliorera leurs compétences cliniques en médecine interculturelle et à quel point les participants au projet Gateway qui sont maintenant résidents en médecine familiale choisiront de se consacrer davantage aux réfugiés.

Conclusion L'intégration, par le projet, de cliniques tenues par des étudiants qui établissent un lien entre les réfugiées et le système médical traditionnel, a connu un succès retentissant, devenant ainsi un modèle d'action communautaire aussi bien qu'une stratégie éducative.

Cet article a fait l'objet d'une révision par des pairs.
Can Fam Physician 2015;61:e81-7

Access to a continuum of care from a family physician is an essential component of health and well-being. Refugees have particular barriers to accessing medical care including language barriers, complex histories, and unfamiliarity with the health care system.¹⁻⁶ The MUN Med Gateway Project, based in the Faculty of Medicine at Memorial University of Newfoundland in St John's, is a medical student initiative that partners with the local refugee settlement agency to provide health care for new refugees to the province. The specific objectives of the Gateway project are as follows:

- to provide access to family physicians and continuous care for newly arrived refugees by conducting in-depth medical history interviews, with provision of some basic physical screening, while working through an interpreter, and matching each patient or family with a family physician;
- to provide opportunities for medical students to practise cross-cultural health care; and
- to mentor medical students in advocacy for underserved populations.

Approximately 150 government-assisted refugees arrive in St John's yearly, although this number declined to about 100 in 2012. Before the initiation of the Gateway project, refugees accessed medical care only for urgent problems through the emergency department or walk-in clinics on an as-needed basis. Very few had access to continuous care through family physicians or other health care providers.

Student-run medical clinics that offer training in clinical skills to students while providing care to marginalized and vulnerable communities have been recognized as important vehicles for service delivery and experiential learning.⁷⁻¹² In Canada there have been several important interdisciplinary student-driven health and education clinic programs. A well-known example is the University of British Columbia Community Health Initiative by University Students, serving Vancouver's Downtown Eastside. Other examples include the University of Alberta Student Health Initiative for the Needs of Edmonton; the University of Calgary Student-Run Clinic; the University of Saskatchewan Student Wellness Initiative Toward Community Health; the University of Manitoba Winnipeg Interprofessional Student-Run Health Clinic; and the University of Ottawa Health Advocacy for Refugees Program. Each of these clinics has been operated by an active pool of motivated volunteers from schools of medicine and other health sciences departments. Most clinics incorporate medical students supervised by licensed health professionals and faculty mentors. Some clinics have resources to treat both acute and chronic problems, including services such as physiotherapy, dental care, regular checkups,

and referrals. Patients served by student-run clinics are predominantly of low socioeconomic status and marginalized populations, such as aboriginal populations, at-risk youth, and the homeless. Some additionally provide basic health education to patients, their families, and friends to empower them to make healthier decisions. An even larger movement exists in the United States, where in 2009 there were more than 110 student-run outreach clinics providing primary care services to the poor and uninsured.¹³ Clinics are primarily nonprofit and typically sponsored by private grants, student funding, and government grants.

Program

The Gateway project adopts the model of student-run clinics, but rather than providing medical care to a disadvantaged population, the goal is to connect refugees with the existing mainstream medical system. This approach avoids many of the challenges faced by student-run clinics, including transient staff, lack of continuity of care, erratic hours, mobile locations, and limited budgets.¹⁴

The Gateway project began in 2006 with a trial period conducted at the end of the medical school year. The project pairs first- and second-year medical student volunteers with newly arrived refugee clients of the local refugee settlement agency. Patients are matched with family doctors in the community who have been recruited to take on Gateway patients. Patients are invited to participate in the Gateway project; however, the settlement agency will find family doctors for any patients who do not want to participate in the project. Patients are made aware that opting out of the Gateway project in no way compromises the services offered to them by the settlement agency. At the beginning of each session, informed consent (verbal and written) to participate in the Gateway project is obtained from each patient participant. They are introduced to Gateway team members and their roles (settlement health worker, medical students, public health nurse, project coordinator, family physician) are explained. Opportunities are built in for questions and discussion about the process. The students, working through interpreters, conduct a medical history interview and provide basic screening, including measurement of blood pressure, height, and weight; growth charts for children; hearing and vision screening; dental screening; and eye and ear examinations as needed. This information is entered into a secure personal health information database, which summarizes the history and screening into a report. The report, along with referrals made at the time of the Gateway session, is forwarded to the identified family physician. The Evidence-Based Preventative Care Checklist for New Immigrants and Refugees is included in the

information provided to the family doctor (www.ccirhken.ca/ccirh/checklist_website). Patients are referred directly to dentists, optometrists, ophthalmologists, otolaryngologists, and other health care providers as necessary by the Gateway project to ensure patients are able to receive these services during the first 12 months after arrival through the Interim Federal Health Program. In the early years of the Gateway project, only a history was done; however, since 2011, screening is also included.

Sessions take place on a weekly basis at the resettlement agency language school during the students' regularly scheduled "free" afternoon and following the resettlement agency's English-language classes. The settlement agency's public health nurse attends all Gateway sessions with the family physician faculty advisor. They work together to provide supervision of the screening and administration of the tuberculin skin tests. The family physician supervises all the elements of the history taking and entry of the information into the secure database. The Gateway project coordinator and the settlement health worker attend the sessions for logistic purposes but do not participate in the history taking or screening.

By 2008, the project was fully operational, with a part-time paid coordinator hired that year, a volunteer corps that comprised more than 75% of first- and second-year medical students led by 2 student coordinators, a team of 2 faculty advisors, and regular weekly sessions with no disruption of service throughout the entire calendar year.

Most first- and second-year students volunteer with the Gateway program. In the fall of 2011, 120 of the 130 first- and second-year medical students were enrolled as volunteers (**Table 1**).

Other Gateway initiatives have evolved over the years as the needs of refugee clients were identified. The infant car seat program is an example. When medical students realized many families did not have access to safe infant car seats, they initiated fundraising to buy 34 new car seats and donated them to families. Car seat safety education was delivered through partnership with a car seat parent education agency. Another initiative provided free vitamin D supplements to all newborns of refugee parents, coupled with an educational strategy about use and administration of vitamin D, delivered by the public health nurse at the settlement agency well-baby clinics. Holiday parties, supported by fundraising and organized by the medical student volunteers, were held in 2011 and 2012 at the language school (clinic site) for all clients of the language school, with gifts for the preschool children. An art show of works by refugee clients was organized at the medical school. Winter clothes have been collected in a "Coats For Kids" program.

There was a concern that tuberculosis screening for newly arriving refugees was not being done in an organized fashion in the community. After discussion with the Medical Officer of Health and his staff, initial tuberculosis screening in the form of tuberculin skin test administration is now offered to refugees at the Gateway sessions. Screening is based on recommendations from the Canadian Collaboration for Immigrant and Refugee Health guidelines¹⁵ and is offered in conjunction with the public health authority, which also provides structured follow-up.

Female student volunteers in the Gateway project have participated in a refugee well-woman pilot project initiated by family medicine residents and the family physician faculty advisor. These clinics are held in the evening with an all-women group of clinicians, providers, and interpreters. Gateway students help in the flow of the clinic and help each woman through the process, as this is often the woman's first visit for well-woman care. During clinic visits, patients were offered breast examinations, cervical cancer and sexually transmitted infection screening, blood pressure measurement, and contraception counseling and prescription.

The settlement agency holds annual health fairs, with medical students providing health education at a series of health-themed booths. Medical students prepare educational materials and deliver them to small groups of patients throughout the half-day health fair in conjunction with other community agencies.

The Gateway project is a joint project of the Discipline of Family Medicine and the Division of Community Health and Humanities with logistic and financial support from the Memorial University Faculty of Medicine. It is managed by a part-time coordinator and 3 faculty advisors with expertise in clinical care, teaching, community health, and database management. The advisory committee, which meets monthly, consists of the 3 faculty advisors, the global health coordinator, 2 medical student coordinators, the project coordinator, the settlement agency public health nurse, the settlement health worker, and the social worker.

Evaluation

Data were collected on the number of sessions completed, volunteer engagement, physician involvement, referrals, and number of patients matched to physicians (**Tables 1 and 2**). Most medical students volunteer with the Gateway project. All patients are matched with family doctors and many are referred to other specialist services, such as dentistry and optometry, directly from the Gateway session. A survey of physicians involved in 1 academic year of the project (2009 to 2010) was conducted to collect physician perspectives on the strengths and challenges of the project. The survey was e-mailed to 10

Table 1. Medical student volunteers, interviews, and screening, stratified by year

VARIABLE	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Volunteer involvement						
• Total no. of volunteers	39	43	55	91	129*	120*
• No. of volunteers for interviews and screening	35	32	49	77	97	73
• No. of volunteers for the SHF [†]	NA	NA	6	14	9	11
Interviews						
• No. of interviews	11	13	16	45	44	28
• No. of patients seen	21	26	60	107	90	98
Screening[‡]						
• No. of screening sessions	NA	NA	NA	NA	16	28
• No. of patients screened	NA	NA	NA	NA	49	98

NA—not applicable, SHF—Spring Health Fair at the Association for New Canadians language school.

*Some volunteers are listed twice as they performed more than 1 activity.

[†]The SHF started in 2008.

[‡]The screening visits started in 2011.

Table 2. Referrals and physician matches

VARIABLE	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
No. of patients referred to specialists*	NA	NA	NA	NA	38	71
Patients matched to family doctors, n (%)	15 (71)	21 (81)	60 (100)	107 (100)	90 (100)	98 (100)
No. of physicians accepting refugee patients	6	5	10	10	15	7
No. of interpreters involved	Unknown	Unknown	18	40	34	40

NA—not applicable.

*Early referrals of patients in urgent need of specialist services such as optometry, ophthalmology, dental care, audiology, dietitians, social workers, surgery, etc, was initiated in 2011.

physicians; 8 responses were received. Seven of the 8 physicians reported that they would continue to see Gateway patients in their practices. Of those, 1 added the caveat that she or he would not see these patients during extremely busy periods and another noted that while he or she would accept Gateway patients at a later date, there was no possibility of accepting new families at the present time. The same number (7 out of 8) reported that they would recommend accepting Gateway patients to their colleagues. By the time of the 2011 survey, most of the physicians surveyed (75%) reported that the medical histories provided by the Gateway project were very helpful for their initial visits with the patients.

The settlement agency has strong praise for the project.

I think it is a wonderful project. We really appreciate the professionalism, friendliness, and kindness of the student volunteers. And the feedback from our clients is 100% positive. (Settlement health worker)

Many of our clients have had limited or unequal access to medical treatment in their countries of

origin. The care and attention that they receive from the medical students through Gateway is therefore greatly appreciated. Also some families are large or have more complex medical histories and the Gateway program is a way to have a more complete history taken, especially since many family doctors have busy practices. (Settlement social worker)

DISCUSSION

Student-run medical clinics, which offer training in clinical skills to students while providing clinical care to marginalized and vulnerable communities, have been recognized as important vehicles for service delivery and experiential learning.⁷⁻¹² Student-run clinics can result in high levels of patient satisfaction with care received¹⁶ and student satisfaction with the experience, provided that the balance of conflicting roles of service and education are appropriately and ethically managed.⁷⁻¹² A review of the success of student-run clinics in the Canadian context has argued that the clinics are successful in terms of teaching clinical

skills, but might be less so in terms of providing optimum access to medical care for marginalized communities (F. Mancuso, R. Graham, unpublished data, 2011). This is in keeping with the position of the US Society of Student-Run Free Clinics, which reports that common challenges include a transient staff, lack of continuity of care, erratic hours, mobile locations, and limited budgets.¹⁴

The Gateway project adopts the model of student-run clinics but departs substantially in its design. Rather than providing medical care to a disadvantaged population, the goal is to connect refugees with the existing mainstream medical system, avoiding many of the challenges faced by student-run clinics. The Gateway project's model of connecting refugees with family doctors in the community has been successful in meeting the needs of refugees and the learning needs of medical students. First- and second-year students learn about interdisciplinary care as they work with the health worker and social worker from the settlement agency as well as the public health nurse at each session. Students learn about social accountability in a practical way through their participation and through mentorship by the faculty advisors, settlement staff, and public health nurse. All sessions are held at the settlement language school, outside the hospital setting, which allows medical students to have a presence in the community. They also see the real-life circumstances of refugees and their families, as the child day care is on-site at the school.

Research evaluating the effect of the Gateway project on students is in progress. Specifically, we are examining whether and how cross-cultural clinical competencies are enhanced by the experience and the extent to which medical student graduates of the Gateway project, who are now residents within the family medicine program, seek opportunities for further engagement with refugee patients.

Further initiatives have included regular teaching rounds for medical students and the development of a "Cooking Together" group for refugee clients and medical students. Continuing medical education for community physicians about refugee health is planned for 2015.


Limitations

Recruitment of family physicians to accept patients has been a challenge. Strategies used that did not result in sufficient numbers of physicians were written invitations sent from the provincial medical association or from the Gateway project, including invitations targeted to alumni of the medical school; notices posted in physician newsletters; and announcements at continuing medical education events. The most successful strategy is one of face-to-face contact with physicians to explain the Gateway project

and ask the physician to consider accepting 1 or 2 Gateway patients into their practices despite having a full case load. Since 2009, that process has been followed: the physician faculty advisor (P.D.) personally contacts family physicians each year to recruit new physicians to the project, if open practices are not available. In 2013, as a further recruitment strategy, letters were sent to family physicians who participated in the Gateway project in the past and to newly practising family physicians in the community to enlist their participation.

Although interpreters are readily available at each Gateway session, there is limited availability in the community. The settlement agency is only funded to provide interpreters to patients for their first medical appointment; after that, patients tend to rely on family or other community members for interpretation services. The settlement agency has, in fact, continued to supply interpreters for many patients at great cost to the agency's funding base. Telephone interpretation services are available only in the hospital setting and are not available in the community.

Conclusion

The Gateway project has strong support from the local settlement agency, is well supported by our Faculty of Medicine, and is well accepted by refugees and medical students as shown by their high participation rate. All refugee patients seen through the Gateway project are matched with family doctors, who have very positive feedback about the project. The project is based on a collaborative approach with community partners. The overwhelming success of this project makes it a model for the use of community action as an educational strategy to help students gain exposure to cross-cultural medicine early in their careers. Our results point to the immediate benefits to newcomers in accessing family physician care. 

Dr Duke is a family doctor and Professor in the Discipline of Family Medicine in the Faculty of Medicine at Memorial University of Newfoundland in St John's.

Dr Brunger is Associate Professor of Health Care Ethics in the Faculty of Medicine at Memorial University of Newfoundland.

Contributors

Drs Duke and **Brunger** contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

Correspondence

Dr Pauline Duke, Memorial University of Newfoundland, Faculty of Medicine, Health Science Centre, St John's, NL A1B 3V6; telephone 709 777-6743; fax 709 777-7913; e-mail pduke@mun.ca

References

1. McKeary M, Newbold B. Barriers to care: the challenges for Canadian refugees and their health care providers. *J Refug Stud* 2010;23(4):523-45.
2. Gagnon A. *Responsiveness of the Canadian health care system towards newcomers*. Discussion paper no. 40. Ottawa, ON: Commission on the Future of Health Care in Canada: the Romanow Commission; 2002.
3. Pottie K, Ng E, Spitzer D, Mohammed A, Glazier R. Language proficiency, gender and self-reported health: an analysis of the first two waves of the longitudinal survey of immigrants to Canada. *Can J Public Health* 2008;99(6):505-10.

4. Newbold B. The short-term health of Canada's new immigrant arrivals: evidence from LSIC. *Ethn Health* 2009;14(3):315-36.
5. Newbold KB. Health care use and the Canadian immigrant population. *Int J Health Serv* 2009;39(3):545-65.
6. Birch S, Eyles J, Newbold KB. Equitable access to health care: methodological extensions to the analysis of physician utilization in Canada. *Health Econ* 1993;2(2):87-101.
7. Beck E. The UCSD student-run free clinic project: trans-disciplinary health professional education. *J Health Care Poor Underserved* 2005;16(2):207-19.
8. Bennard B, Wilson JL, Ferguson KP, Sliger C. A student-run outreach clinic for rural communities in Appalachia. *Acad Med* 2004;79(7):666-71.
9. Clark DL, Melillo A, Wallace D, Pierrel S, Buck DS. A multidisciplinary, learner-centered, student-run clinic for the homeless. *Fam Med* 2003;35(6):394-7.
10. Gee H, Stock C, Drynan D, Bainbridge L, Ball V. *Evaluation of an innovative interprofessional student run clinic*. Presented at: University of British Columbia; 2011; Vancouver, BC.
11. Gilkey MB, Earp JA. Effective interdisciplinary training: lessons from the University of North Carolina's student health action coalition. *Acad Med* 2006;81(8):749-58.
12. Buchanan D, Witten R. Balancing service and education: ethical management of student-run clinics. *J Health Care Poor Underserved* 2006;17(3):477-85.
13. Meah YS, Smith EL, Thomas DC. Student-run health clinic: novel arena to educate medical students on systems-based practice. *Mt Sinai J Med* 2009;76(4):344-56.
14. Lev-Tov H. Quality of care. *Society of Student-Run Free Clinics Newsletter* 2009;1(2):2, 4. Available from: www.med.wisc.edu/files/smph/docs/medic/ssrfc-may-newsletter-final.pdf. Accessed 2015 Jan 16.
15. Pottie K, Greenaway C, Feightner J, Welch V, Swinkels H, Rashid M, et al. Evidence-based clinical guidelines for immigrants and refugees. *CMAJ* 2011;183(12):E824-925. Epub 2010 Jun 7.
16. Ellett JD, Campbell JA, Gonsalves WC. Patient satisfaction in a student-run free medical clinic. *Fam Med* 2010;42(1):16-8.

— * * * —