



What to Do When the World Comes to You:

Working with
Immigrants in Family
Practice

Meb Rashid, MD
Gabrielle Inglis, MD
Robin Lennox, MD
Jessica Munro, NP
Yves Talbot, MD

In today's world, families are under increasing stress, from financial and time constraints, to family breakdown, substance abuse, and threats of violence. Family physicians are seeing an increase in psychosocial issues such as anxiety and stress-related disorders, often co-existing with and complicating medical problems such as diabetes or pneumonia. The psychosocial issues are often more difficult to diagnose and manage than are the medical problems—and all take place in the family context. Very often, the family is the key to dealing effectively with the whole spectrum of complaints, requiring a psychosocial assessment. In the crowded family medicine curriculum, this vital area of knowledge and skill is often ignored in favour of more clear-cut procedural skills.

To educate family physicians about dealing with families, a group of family medicine educators, practitioners and mental health professionals affiliated with the Department of Family and Community Medicine at the University Of Toronto founded the Working with Families Institute (WWFI) in 1985. The WWFI has developed various training experiences for trainees and practising physicians.

Goals

The goal of these modules is to provide a learning resource for physicians dealing with common medical and psychosocial issues that have an impact on families. The modules seek to bridge the gap between current and best practice, and provide opportunities for physicians to enhance or change their approach to a particular clinical problem.

The modules have been written by a multidisciplinary team from the Faculty of Medicine, University of Toronto. Each module has been peer-reviewed by external reviewers from academic family medicine centres across Canada. The approach is systemic, emphasizing the interconnectedness of family and personal issues and how these factors may help or hinder the medical problems. The topics range from postpartum adjustment to the dying patient, using a problem-based style and real case scenarios that pose questions to the reader. The cases are followed by an information section based on the latest evidence, case commentaries, references and resources.

How to Use the Modules

The modules are designed for either individual learning or small group discussion. We recommend that readers attempt to answer the questions in the case scenarios before reviewing the case commentaries or reading the information section.

The editors welcome feedback on these modules and suggestions for other modules. Feedback can be directed to Dr. Watson at dfcm.wwfi@utoronto.ca.

Acknowledgements

The WWFI is grateful to the Counselling Foundation of Canada for its generous educational grant in support of this project. The editors also thank Iveta Lewis (Librarian-DFCM) Brian Da Silva (IT consultant-DFCM), and Danielle Wintrip (Communications Coordinator-DFCM) for their valuable contributions to this project.

In addition, we thank our editorial advisory group including Ian Waters, MSW, Peter Selby MD, Margaret McCaffery, and William Watson, MD.

We also acknowledge the work of the Practice-based Small Group Learning Program of the Foundation for Medical Practice Education, on which these modules are modelled.

*Bill Watson
Margaret McCaffery
Toronto, 2016*

What to Do When the World Comes to You: Working with Immigrants in Family Practice

Authors:

Meb Rashid, MD, Medical Director, Crossroads Clinic, Women's College Hospital

Gabrielle Inglis, MD, Family Medicine Resident
St. James Town Health Centre and St. Michael's Hospital
Department of Family & Community Medicine, University of Toronto

Jessica Munro, BN, PHC, NP, Nurse Practitioner

Mt. Sinai [Academic Family Health Team](#),
Department of Family & Community Medicine, University of Toronto

Robin Lennox, MD, Family Medicine Resident
Department of Family Medicine, McMaster University

Yves Talbot, MD, Professor, Department of Family & Community Medicine,
University of Toronto; Scholar, Peter A Silverman Centre for International Health,
Dalla Lana School of Public Health, Health Policy Management and Evaluation

Reviewer:

Ashna Bowry, MBChB, CCFP, MSc, DTMH
Staff Physician, St Michael's Hospital, Health Centre at 80 Bond
Assistant Professor, Department of Family & Community Medicine, University of
Toronto
Associate Staff Physician, Tropical Medicine, University Health Network

Editors:

William J. Watson, MD, CCFP, FCFP
Margaret McCaffery, Canterbury Communications

Working With Families Institute, 2016

Chair: **William J. Watson, MD, CCFP, FCFP**
Staff Physician, St. Michael's Hospital;
Associate Professor, Department of Family & Community Medicine and
Dalla Lana School of Public Health, University of Toronto

CONTENTS

SUMMARY	5
OBJECTIVES	6
Key Features.....	6
Core Competencies.....	6
CASE STUDY.....	7
INFORMATION POINTS	9
Immigration Medical Exam.....	9
Health Insurance for Immigrants and Refugees	9
Infectious Disease Risk and Screening.....	9
Immunizations	10
Screening for Tuberculosis	11
Mental Health Issues	12
Intimate Partner Violence.....	12
Cultural Competencies	13
Women’s Health	13
CASE COMMENTARY	15
REFERENCES	17
RESOURCES.....	20

SUMMARY

Over 20% of Canada's population is foreign born and over one million people are considered new Canadians, having received citizenship within the last five years.¹ Although Canada has always seen large waves of immigrants, in the last 40 years there has been a dramatic increase in immigrants arriving from Asia, Africa, Latin America and the Caribbean. Immigrants may have different risk factor profiles based on genetic risks and different environmental exposures, both pre- and post-migration. Discordance in language and culture may challenge the therapeutic relationship. Given the number of new immigrants in Canada, family physicians become responsible for understanding the nuances of dealing with patients who are foreign-born.

The immigrant population is immensely heterogeneous. The majority of immigrants arriving in Canada are accepted as "economic immigrants". Many have excelled academically, speak multiple languages and may have a job upon arrival. Another 25% of immigrants are sponsored by family members and 10% are refugees.² The risk factor profile of a university professor from Argentina may differ dramatically from a Burmese woman who has languished in a refugee camp for decades. Despite such heterogeneity, there are some commonalities in health risks based on countries of origin and migration histories. For example, there are higher rates of hemoglobinopathies in people of African descent and refugees often have higher risks for infectious disease. This module identifies approaches to specific issues that challenge family physicians caring for immigrant populations.

OBJECTIVES

After completing this module you will be able to:

1. understand the importance of different migration trajectories of immigrants to Canada and how this impacts on health.
2. appreciate the unique health needs of some immigrant populations.
3. become familiar with available resources required to address the needs of this population.

Key Features

1. Family physicians require an understanding of the unique health risks that confront different immigrant populations.
2. Where necessary, family physicians will need to be aware of existing resources to guide the assessment and treatment of newly arrived refugee populations.

Core Competencies

1. Understand the role of the generalist physician in the health care system.
2. Communicate effectively and professionally to family members.
3. Establish therapeutic relationships with patients and families.
4. Demonstrate sensitivity to cultural, gender and socioeconomic differences.
5. Explore the patient's cultural and social context to understand how these may influence the presentation of their symptom(s).
6. Recommend to the patient that they seek out appropriate community resources to further educate and empower themselves.
7. Explore intentionally the patient's cultural and social context to better understand the impact of these variables on their illness experience.
8. Exhibit cultural sensitivity when implementing a treatment plan and seek common ground.

CASE STUDY

Ms. Wahidi, aged 28

Ms. Wahidi recently arrived in Canada from Afghanistan with her eight-year-old daughter and six-year-old son. She was married to a local government official who was killed in front of her and her children two years ago. After that incident, she fled to Pakistan, where she stayed with distant family as a refugee until she was accepted to come to Canada with her children. She has finished high school and learned English on her own.

Her only hospitalizations in Afghanistan were for the vaginal births of her two children. She comes into your office today because she was told that she needs a family doctor for herself and her children.

You obtain a thorough history and do a physical exam, which is essentially normal. She is reluctant to get any testing, citing the Immigration Medical Examination she had before arriving in Canada. “I have been checked already,” she states. She is also unclear if she has health insurance for any testing. You both decide to defer any testing until her next visit.

- *What issues may be different for this patient compared to someone who is Canadian-born?*
- *What is the purpose of the Immigration Medical Exam and what routine testing does it include?*
- *What are the differences in health insurance coverage for newly arrived immigrants and refugees?*

At her next visit, you discuss the Immigration Medical Exam and after your explanation, Ms. Wahidi agrees to the testing.

- *Many immigrants and refugees are exposed to a different risk profile for infectious diseases. What infectious diseases may be a concern for immigrant and refugee patients?*
- *What specific testing would you suggest for this asymptomatic patient?*
- *Are there any specific immunizations that may be recommended for this patient to prevent infectious diseases?*

Her testing returns as being positive for hepatitis C. She has no risk factors for hepatitis C and you are unclear if this is a false positive result.

- *Why are rates of hepatitis C higher in some immigrant populations?*
- *How would you explain the results to your patient?*
- *What other testing would be recommended in light of her positive Hepatitis C result?*

Ms. Wahidi returns to review the results of her tests. You explain the results of her testing. She is now complaining of insomnia that began one month ago. She wakes every night, often with nightmares, and is unable to go back to sleep. She finds it difficult to leave the house and avoids social situations. She is having brief, spontaneously induced bouts of anxiety that are triggered by a sensation of being back in the moment when her husband was killed.

- *What are you concerned about?*
- *How would you approach this issue?*

She has also developed a cough that has persisted for the last three weeks. She denies fever, night sweats or weight loss. Her physical exam is essentially normal.

- *What would you suspect, given that Ms. Wahidi is foreign-born?*
- *What investigations would you suggest?*

You institute appropriate management and come to know Ms. Wahidi well over the next few years. She is able to improve her English language skills and begins to do volunteer work with an Afghan community organization. Eventually she finds employment that she enjoys and notes her sleep has improved and her anxiety has decreased.

INFORMATION POINTS

1. Immigration Medical Exam

All immigrants, refugees, and temporary residents staying more than six months in Canada are required to undergo an Immigration Medical Examination (IME) before or on entry into Canada. However, many patients and physicians are unaware of the purpose and components of the IME.

The purpose of the IME is to assess the potential burden of illness on the health and social service systems and to screen for a limited number of public health risks, including HIV, TB, and syphilis. The IME consists of a targeted history and physical, a chest x-ray to screen for active TB cases in people over age 10, serology for HIV and syphilis screening for those over age 14, and a urinalysis for children over age four. Immigrants or refugees with infectious TB are treated before entering Canada. Individuals who have tested positive for HIV are notified of their status and are reported to local Canadian public health authorities for follow-up. Those who test positive for syphilis are treated.

The IME does not provide clinical preventative screening and is not a substitute for a complete physical examination.

2. Health Insurance for Immigrants and Refugees

Permanent residents, whether arriving as refugees or immigrants, are eligible for provincial or territorial health coverage. Depending on the province in which a newcomer settles, there may be a waiting period of up to three months before coverage begins.

In addition to provincial coverage, refugees are provided temporary health care coverage by the federal government through the Interim Federal Health Program (IFHP). Between 2012 and 2016, the Interim Federal Health Program was drastically scaled back, with significant and complex cuts made to health coverage for all categories of refugees. These cuts were heavily criticized by Canadian medical professionals and ultimately challenged in the Federal Court of Canada, where a judge ruled them to be “cruel and unusual”.³ After many years of advocacy work by Canadian physicians and their allies, the IFHP was restored to pre-2012 levels as of April 1, 2016. In simple terms, pre-2012 coverage means that in addition to coverage for visits to the doctor and hospital, refugees receive supplemental health coverage comparable to that of basic social assistance programs.

3. Infectious Disease Risk and Screening

The IME does not thoroughly screen for infectious diseases beyond HIV, TB, and syphilis. Many refugees will come from countries with a high prevalence for other infectious diseases, including hepatitis B, hepatitis C, and enteric parasites. Screening for these infectious diseases should be initiated early in order to prevent morbidity and mortality. Canadian guidelines have reviewed the evidence on screening for a number of infectious diseases and provide guidance for primary care clinicians.⁴

Hepatitis B: It is estimated that 350 million people globally are chronically infected with hepatitis B. Approximately 25% will suffer from liver failure or hepatocellular carcinoma as a result.⁵ Many are asymptomatic until they have

advanced disease and there is some evidence suggesting a benefit for screening for hepatitis B and immunizing close contacts of those that are chronically infected.

Canadian guidelines suggest screening for chronic hepatitis B in those who come from countries where the prevalence is 2% or more.⁶ This has been shown to be cost-effective.⁷ Similarly, those who come from such countries should be screened for prior immunity and if lacking, should receive immunization for hepatitis B.⁶ It is likely appropriate to screen all refugees and refugee claimants for hepatitis B, given that the prevalence in this population has been shown to be over 2% regardless of the rates in their countries of origin.⁸

Hepatitis C: Over 170 million people are infected with hepatitis C globally; 20% will go on to have cirrhosis and up to 5% will develop hepatocellular cancer.⁹ The risk factor profile for hepatitis C in those who are foreign-born may be very different from the profile for those born in Canada. Many infected individuals contract hepatitis C through unsafe injection practices, often in health care settings.¹⁰ Many immigrants do not provide a history of injection drug use, blood transfusions or other parenteral injections. Screening for hepatitis C by asking about risk factor profiles may not be adequate in the foreign-born population. Canadian guidelines suggest screening for hepatitis C in all foreign-born individuals who originate from regions with a prevalence rate of over 3%.¹¹ This threshold excludes the Americas, Western Europe and South Asia. Many immigrants may not be challenged with the comorbidities that often confront those with other risk factors for hepatitis C; individualizing screening may therefore be worthwhile for other foreign-born individuals from countries with prevalence rates under 3%. With improvements in treatment for hepatitis C, the risk/benefit profile for screening may also improve.¹²

Enteric Parasites: Immigrants and refugees from Southeast Asia, Africa, or the Middle East are at increased risk for enteric parasites based on increased environmental exposure. Most of these infections are asymptomatic and will resolve without treatment. In contrast, many refugees and some immigrants may be at increased risk for strongyloidiasis and schistosomiasis, two parasites associated with significant morbidity and mortality.^{13, 14}

Strongyloidiasis may be endemic in any area where sanitation is poor, while schistosomiasis is isolated to regions where the intermediate vector is present. Serologic screening for these enteric parasites is recommended in patients from Southeast Asia and Africa, including those who are asymptomatic, as detection and early treatment can prevent significant morbidity and mortality.¹⁵ It may also be prudent to screen for strongyloidiasis in other foreign-born immigrants and refugees who have had to endure living conditions with poor sanitation and also for schistosomiasis, if they are from an endemic area,.

4. Immunizations

Evidence has shown that a substantial proportion of immigrants and refugees arriving in Canada are susceptible to vaccine-preventable diseases such as tetanus, measles, mumps, rubella, and varicella.^{16, 17} Many immigrants and refugees will not have a documented immunization record or will be unaware of which vaccinations they received in their country of origin or on their migratory journey.

Most immigrant and refugee children will have their immunization schedules completed through well child visits and through the school-based surveillance system for immunizations, but the same is not true for adults. Many countries have not reached adequate immunization coverage rates and immunization schedules may differ in other countries. This becomes particularly relevant for adults who would have received their childhood immunizations decades earlier.

It is recommended that all foreign born individuals have an assessment for vaccine-preventable diseases. In the absence of health records, all individuals should be given a primary series for age-appropriate vaccinations. In Ontario, the Ontario Publicly Funded Immunization Catch-Up Schedule provides guidance on this issue.¹⁸

Varicella is one of the few infectious diseases that has been more common in temperate versus tropical areas. There is some evidence that using a history of previous infection may not be appropriate in people who originate in areas where varicella is less common.¹⁹ The Canadian evidence-based guidelines recommend checking serology in all foreign-born individuals over age 13 and immunizing those who are susceptible.²⁰ For children under age 13, vaccination without checking serology would be appropriate.

5. Screening for Tuberculosis

Testing for active TB should be considered for any patients who present with possible symptoms and all patients known to have a higher risk for TB infection. Refugees are at higher risk of TB because of higher epidemiology rates in their home countries, increased risk, or exposure during migration.²¹ Canada reports an average of 1,000 cases per year among those who are foreign-born and 44% of cases present within the first five years after arrival.²² Pulmonary TB accounts for the majority of reported TB cases.

Symptoms often present as a chronic cough for two to three weeks that started dry but becomes productive. Patients may complain of fever and night sweats. Signs of more advanced disease often include weight loss, chest pain and hemoptysis. Physical exam may be normal, as altered breath sounds often present later in the disease process.²³ Chest X-rays should be used to rule out tuberculosis but sputum testing may be indicated even where the chest X-ray is normal but where suspicion of active pulmonary tuberculosis is high.

Immigrants may have a higher risk of extrapulmonary tuberculosis and clinicians should be vigilant about ruling out this manifestation of disease. Tuberculosis adenitis is the most common site of extrapulmonary tuberculosis.²⁴

There are two ways to test for latent tuberculosis infection (LTBI): the tuberculin skin test (TST) and the interferon gamma release assay (IGRA). IGRAs are more specific than TSTs for those who have had BCG after infancy or multiple times, but may be too costly as they may not be covered by provincial insurance plans.²⁵

The IGRA and TST are not recommended for the diagnosis of active TB. They cannot detect the difference between latent and active TB. In general, the use of TSTs and IGRAs is confined to the diagnosis of LTBI.²⁵

Testing for LTBI should be undertaken only in patients who would benefit from treatment. Testing should be considered for some foreign-born individuals from

countries with a high prevalence of TB (>30cases/100,000 individuals). The following should be considered for treatment:²⁵

- All individuals under age 20
- All refugees and refugee claimants up to age 50
- Others based on the risk of reactivation:
 - low risk—up to age 50
 - moderate risk—up to age 65
 - high risk—at any age

The risk of reactivating late tuberculosis is highly dependent on comorbidities; for example, people with HIV have rates over 100 times the average risk. A detailed description of risk categories can be found in the Canadian Tuberculosis Standard. A useful on-line calculator can also be found at <http://www.tstin3d.com/en/calc.html>, although this calculator does not factor in the increased risk from being a refugee.

Standard treatment for LTBI is nine months of INH, provided by Public Health. All cases of TB (latent or active) must be reported to Public Health.²⁶

6. Mental Health Issues

Mental health may be impacted by the specific circumstances that bring people to Canada as refugees. Their background may include trauma of varying kinds, both physical and psychological.

Because of such barriers as language and culture, immigrants and refugees have higher levels of undiagnosed depression. In general, the rate of depression among immigrants is lower than that of the general Canadian population, whereas the rate among refugees may be higher for depression and post-traumatic stress disorder.²⁷

Of immigrants and refugees arriving in Canada from war-torn countries, 45% have been exposed to trauma. However, 80% of those exposed do well once they find safety and support. Canadian guidelines recommend screening for depression but not routinely screening for post-traumatic stress disorder (PTSD) in asymptomatic immigrants and refugees.^{28,29}

There is little consistency among studies that have attempted to quantify the prevalence of PTSD in refugee populations, although it is considered to be at least 10%, with some groups having rates as high as 60%.³⁰⁻³² Effective treatments include different counselling modalities such as cognitive behavioural therapy, exposure therapy and group counselling. Social factors such as unemployment, isolation and exposure to discrimination may overshadow the effects of mental health treatments.²⁹ Canadian guidelines found that the evidence supporting the use of medications was found to be minimal except in the context of concurrent depression or where targeting specific symptoms.²⁷

7. Intimate Partner Violence

There are inconsistencies in the studies detailing the prevalence of intimate partner violence (IPV) in newly-arrived immigrants. Some studies have determined the levels to be lower in new immigrants when compared to the

Canadian-born population,³³ although methodological issues make it difficult to determine precise numbers. Regardless of the rates of IPV, immigrant women may be exposed to different challenges in such relationships. In particular, language challenges, a lack of social supports and economic reliance on partners may be more common in newly arrived immigrants. Fleeing from IPV may also be the motive for migrating to Canada.

8. Cultural Competencies

Newcomers to Canada often have unique health needs, depending on migration experience, disease exposure in their country of origin, socioeconomic status, and genetic predisposition. Cultural differences, language barriers, and the challenges of navigating an unfamiliar health care system are also issues for newcomers.

For the primary care provider working with immigrants and refugees, it is important to address the unique needs of specific communities without overgeneralizing and making assumptions about patients based on ethnicity, religion, immigration status, or country of origin. It is also important for physicians to remain aware of their own values and beliefs, and the ways in which their own cultural perspectives may bias care.

When there are language barriers between care providers and patients, it is recommended that physicians use professional interpretation services. Relying on family members to interpret is not advised, as their relationship to the patient compromises confidentiality. Professional interpreters are trained to translate verbatim, ensuring the flow of accurate information between patient and provider. This is essential for good clinical care.³⁴

Culturally competent care can help improve health outcomes and reduce disparities for immigrants and refugees.⁴ The culturally competent physician is better equipped to communicate effectively, negotiate cultural differences, and respond to their patients' specific needs.

9. Women's Health

Refugee women may come from regions where there is a high rate of unmet need for contraception; rates are highest in sub-Saharan Africa.³⁵ It is recommended that practitioners open the discussion about contraception and sexual health early in order to prevent unwanted pregnancies and sexually transmitted infections. This discussion must be culturally sensitive, as contraception methods may have drastically different connotations in different cultures.³⁵

The availability and preference for various contraception methods varies widely across different regions. As a result, many refugee women may be unaware of the contraception methods available to them in Canada. All refugee women of reproductive age should be screened for unmet contraceptive needs, provided information on the various methods available to them, and where possible, be provided contraception on site.³⁵

Cervical screening is integral to the early detection of cervical cancer. Immigrant and refugee women are at increased risk of never having had a Papanicolaou (Pap) test.³⁶ Practitioners should address this unmet need by

screening all sexually active refugee and immigrant women for cervical abnormalities with Pap tests. As many of these women may not have had experience with Pap tests before, it is very important to establish a strong rapport and if possible, provide access to a female practitioner.³⁷

CASE COMMENTARY

Ms. Wahidi is a 28-year-old woman who arrived in Canada with two children, having been exposed to significant trauma in her country of origin and forced to migrate. She presents to her family physician with no symptoms, which may be unusual for many foreign-born individuals, who may access the health care system only when symptoms arise. An explanation of the benefits of prevention and screening may be critical to ensuring adequate long-term care.

Ms. Wahidi felt reassured by the IME that was done pre-migration to Canada. This exam is administered by Citizenship and Immigration Canada to determine if there is a serious communicable disease and whether there may be conditions present that would pose a significant cost to the health or social service systems in Canada. The IME should not be a substitute for a thorough assessment by the primary care clinician.

The changes to health insurance coverage have been difficult to understand for patients as well as clinicians. As a resettled refugee, Ms. Wahidi would have access to OHIP. She would also have insurance through the IFHP. As of April 2016, all refugees are able to access insurance for medications through a formulary equivalent to that provided for people on social assistance.

Ms. Wahidi was found to be positive for hepatitis C. Although there are few data on the rates of hepatitis C in Afghanistan, rates have been shown to be very high in surrounding regions of Central Asia.³⁸ She would need HCV viral loads to confirm active infection, HCV genotype, and tests of liver function. Hepatitis C is a potentially treatable disease and it would be worthwhile for her to see a clinician trained in such treatments to determine if she would be a candidate for therapy. She should also be informed about the transmission of HCV to ensure that the risk of transmission to her contacts is minimized.

Discussing HCV requires an initial assessment of the patient's existing knowledge about the virus. A gentle but honest discussion should allow opportunity for her to ask any questions she may have. Written information in the patient's language is readily available for many conditions. Repeated discussion on future visits should be routine to ensure that her questions are addressed and the information provided is understood.

After some time in Canada, Ms. Wahidi also developed symptoms consistent with post-traumatic stress disorder. Initial periods of euphoria upon having departed from a volatile area followed by mental health issues months later have been described.³⁹

Ms. Wahidi also presented with a cough for three weeks. The incidence of tuberculosis in Afghanistan is 189/100,000, which puts it above the threshold of 30/100,000. Although the rates in immigrants are often lower than in their country of origin, it would still be prudent to consider active pulmonary tuberculosis in this woman. A chest X-ray should be done and if the suspicion is still high, a sputum sample (obtained spontaneously or by sputum induction) should be examined for *Mycobacterium tuberculosis*. If negative, other causes of cough should be sought.

When active tuberculosis is ruled out, given that this patient is under age 50 and arrived as a refugee, she should be tested for latent tuberculosis infection

(LTBI). The use of INH in the context of hepatitis C needs to be individualized and consultation with experts in the treatment of tuberculosis may be warranted.

Ms. Wahidi came to Canada as a refugee. Her risk factor profile for health issues may be very different from those who arrive as economic immigrants. The refugee experience does increase the risk of infectious diseases and mental health issues. In other groups of immigrants, it may not be necessary to screen for enteric parasites; the risk of reactivation of latent tuberculosis may also be lower. Despite these examples, many of the issues that face refugees will also be problematic for other groups of immigrants. Care must be taken to individualize such risks.

Most immigrants to Canada are in good health. Despite the many challenges on arrival, many do well, given the opportunity. Despite Ms. Wahidi's struggles with PTSD, it would not be unusual for her to improve and become a productive member of Canadian society.

REFERENCES

1. Statscan (Internet). Immigration and Ethnocultural Diversity in Canada (Cited July 9, 2014) Available at: <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-010-x/99-010-x2011001-eng.cfm>.
2. Citizenship and Immigration Canada (Internet). Canada facts and figures: immigration overview, permanent and temporary residents 2012 (Cited June 9, 2014) Available at: http://publications.gc.ca/collections/collection_2013/cic/Ci1-8-2012-eng.pdf.
3. Sheikh H, Rashid M, Berger M, Hulme J Refugee health: providing the best possible care in the face of crippling cuts. *Can Fam Physician* 2013 Jun;59(6):605-606.
4. Pottie K, Greenaway C, Feightner J, Welch V, Swinkels H, Rashid M, et al. Evidence-based clinical guidelines for immigrants and refugees. *CMAJ* 2011;83(12):E824-E925. Available from: <http://www.cmaj.ca/content/183/12/E824>.
5. Coffin CS, Fung SK, Ma MM. Management of chronic hepatitis B: Canadian Association for the Study of the Liver consensus guidelines. *Can J Gastroenterol* 2012;26(12):917-938.
6. Greenaway C, Narasiah L, Plourde P, Ueffing E, Pottie K, Deschenes M, et al. Appendix 5: Hepatitis B: evidence review for newly arriving immigrants and refugees. *CMAJ* 2011;183:E824–925. [Cited Jan 27 2016] Available at: <http://www.cmaj.ca/content/suppl/2010/06/07/cmaj.090313.DC1/imm-hepb-5-at.pdf>.
7. Rossi C, Schwartzman K, Oxlade O, Klein MB, Greenaway C. Hepatitis B screening and vaccinations strategies for newly arrived adult Canadian immigrants and refugees: a cost-effectiveness analysis. *PLoS One*. 2013 Oct 18;8(10):e78548. [Cited Jan 27 2016] Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24205255>.
8. Rossi C, Shrier I, Marshal L, Cnossen S, Schwartzman K, Klein MB, et al. Seroprevalence of chronic hepatitis B virus infection and prior immunity in immigrants and refugees: A systematic review and meta-analysis. *PLOS One* 2012;7(9):c44611.
9. Te HS, Jensen DM. Epidemiology of hepatitis B and C viruses: a global overview. *Clin Liver Dis* 2010 Feb;14(1):1–21.
10. Hauri AM, Armstrong GL, Hutin YJ. The global burden of disease attributable to contaminated injections given in health care settings. *Int J STD AIDS* 2004 Jan;15(1):7–16.
11. Greenaway C, Wong D, Assayag D, Deschenes M, Hui C, Ueffing E, et al. Appendix 7: Screening for hepatitis C infection: evidence review for newly arriving immigrants and refugees. *CMAJ* 2011; 183(12):E861-E865.
12. Liang TJ, Ghany MG. Current and future therapies for hepatitis c virus infection. *N Engl J Med* 2013; 368:1907-1917.
13. Ross AGP, Bartley PB, Sleight AC, Olds GR, Li Y, Williams GM, et al. Schistosomiasis *N Engl J Med* 2002;346:1212-1220.

14. Lim S, Katz K, Kraiden S, Fuksa M, Keystone JS, Kain KC. Complicated and fatal *Strongyloides* infection in Canadians: risk factors, diagnosis and management. *CMAJ* 2004;171:427.
15. Khan K, Heidebrecht C, Sears JS, Chan A, Rashid M, Greenaway C, et al. Appendix 8: Intestinal Parasites—*Strongyloides* and schistosoma: evidence review for newly arriving immigrants and refugees. *CMAJ* 2011; 183(12):E865-E868.
16. Greenaway C, Dongier P, Boivin JF, Tapiero B, Miller M, Schwartzman K. Susceptibility to measles, mumps, and rubella in newly arrived adult immigrants and refugees. *Ann Intern Med* 2007 Jan 2;146(1):20-24.
17. Merrett P, Schwartzman K, Rivest P, Greenaway C. Strategies to prevent varicella among newly arrived adult immigrants and refugees: a cost-effectiveness analysis. *Clin Infect Dis* 2007 Apr 15;44(8):1040-8.
18. Ontario Ministry of Health and Long-term Care (Internet). Publicly Funded Immunization Schedules for Ontario – October 2015 (Cited Jan 27, 2016). Available at: http://www.health.gov.on.ca/en/pro/programs/immunization/docs/immunization_schedule.pdf.
19. Christiansen D, Barnett E. Comparison of varicella history with presence of varicella antibody in refugees. *Vaccine* 2004; 22:4233–7.
20. Greenaway C, Rashid M, Barnett ED, Sandoe A, Ueffing E, Munoz M, et al. Appendix 4: Varicella immunization: evidence review for newly arriving immigrants and refugees *CMAJ* 2011; 183(12):E844-E847.
21. Thorpe LE, Laserson K, Mills W, Field K, Venkatarama K, Oxtoby M, et al. Infectious tuberculosis among newly arrived refugees in the United States. *N Engl J Med*. 2004; 350:2105–6.
22. Creatore MI, Lam M, Wobeser WL. Patterns of tuberculosis risk over time among recent immigrants to Ontario, Canada. *Int J Tuberc Lung Dis*. 2005; 9:667–72.
23. Pai M, Minion J, Jamieson F, Wolfe, J, Behr, M. Diagnosis of active tuberculosis and drug resistance. In: *Canadian Tuberculosis Standards (7th edition)*. Ottawa: Canadian Lung Association; 2013.
24. Halverson J, Ellis E, Gallant V, Archibald CP. Epidemiology of tuberculosis in Canada. In: *Canadian Tuberculosis Standards (7th edition)*. Ottawa: Canadian Lung Association; 2013.
25. Pai M, Kunimoto D, Jamieson F, Menzies D. Diagnosis of latent tuberculosis infection. In: *Canadian Tuberculosis Standards (7th edition)*. Ottawa: Canadian Lung Association; 2013.
26. Menzies D, Alvarez GG, Khan K. Treatment of latent tuberculosis infection. In: *Canadian Tuberculosis Standards (7th edition)*. Canadian Lung Association; 2013.
27. Kirmayer L, Narasiah L, Munoz M, Rashid M, Ryder AG, Guzder J, et al. Common mental health problems in immigrants and refugees: general approach in primary care. *CMAJ* 2011;183(12):E959-E967.

28. Kirmayer L, Narasiah L, Ryder, AG, Burgos G, Zelkowitz P, Pottie K, et al. Appendix 10: Depression: evidence review for newly arriving immigrants and refugees. *CMAJ* 2011;183(12):E873-E875.
29. Rousseau C, Pottie K, Thombs BD, Munoz M, Jurcik T. Post traumatic stress disorder: evidence review for newly arriving immigrants and refugees. *CMAJ* 2011;183(12):E876-E878.
30. Fazel M, Wheeler J, Danesh J. Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. *Lancet*. 2005 Apr 9-15;365(9467):1309-14.
31. Steel Z, Chey T, Silove D. Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. *JAMA* 2009 Aug 5;302(5):537-49.
32. Marshall GN, Schell TL, Elliott MN, Berthold SM, Chun CA. Mental health of Cambodian refugees 2 decades after resettlement in the United States. *JAMA* 2005 Aug 3;294(5):571-9.
33. Hassan G, Thombs BD, Rousseau C, Kirmayer LJ, Feightner J, et al. Intimate partner violence: evidence review for immigrants and refugees. *CMAJ* 2011; 183 (12):E883-E886.
34. Canadian Pediatric Society. Cultural competence for child and youth health professionals. *Caring for Kids New to Canada*, 2013. [Cited Jan 27 2016.] Available at: <http://www.kidsnewtocanada.ca/culture/competence>.
35. Dunn S, Janakiram P, Blake J, Hum S, Cheetham M, Welch V, et al. Contraception: evidence review for newly arriving immigrants and refugees. *CMAJ* 2011 183(12):E876-E878. Available at:
36. Woltman KJ, Newbold KB. Immigrant women and cervical cancer screening uptake: a multilevel analysis. *Can J Pub Health* 2007;98(6):470-475.
37. Pottie K, Nolen A, Topp P, Torres S, Welch V, Durand N, et al. Appendix 19: Cervical cancer: evidence review for newly arriving immigrants and refugees *CMAJ* 2011 183(12):E906-E909. Available at: <http://www.cmaj.ca/content/suppl/2010/06/07/cmaj.090313.DC1/imm-cervical-19-at.pdf>.
38. Aslam M, Aslam J. Seroprevalence of the antibody to hepatitis C in select groups in the Punjab region of Pakistan. *J Clin Gastroenterol* 2001;33:407-11.
39. Beiser M. The health of immigrants and refugees in Canada. *Can J Public Health*. 2005 Mar-Apr;96 Suppl 2:S30-44.

RESOURCES

General Information and Guidelines:

Canadian Collaboration on Immigrant and Refugee Health. Evidence-based clinical guidelines for immigrants and refugees. CMAJ 2011. [Cited Feb 1 2016] Available at:

<http://www.cmaj.ca/content/early/2011/07/26/cmaj.090313.full.pdf+html>

Canadian Pediatric Society. Cultural competence for child and youth health professionals. Caring for Kids New to Canada, 2013. [Cited Feb 1 2016]

Available at: <http://www.kidsnewtocanada.ca/culture/competence>.

General Practice Victoria. Refugee Health Assessment Tool. Victorian Refugee Health Network, 2012. [Cited Feb 1 2016] Available at:

<http://refugeehealthnetwork.org.au/refugee-health-assessment-tool/>.

Health Protection Agency. Migrant Health Guide. Public Health England, 2012. [Cited Feb 1 2016] Available at :

<http://webarchive.nationalarchives.gov.uk/20140714084352/http://www.hpa.org.uk/MigrantHealthGuide/>.

Barnett E, Walker P. Immigrant Medicine. Philadelphia; Saunders Elsevier: 2007.

Health Insurance

Interim Federal Health Program: Summary of coverage. Government of Canada, Immigration & Citizenship, 2016. [Cited June 9 2016] Available at:

<http://www.cic.gc.ca/english/refugees/outside/summary-ifhp.asp>.

Demographics of Migration to Canada

Citizenship and Immigration Canada. Facts and Figures. Government of Canada, 2016. [Cited Feb 1 2016] Available at:

<http://www.cic.gc.ca/english/resources/statistics/menu-fact.asp>.

Infectious Diseases

General

Travelers' Health. Yellow Book Chapter 3: Infectious diseases related to travel. Centers for Disease Control and Prevention, 2015. [Cited Feb 1 2016] Available at: <http://wwwn.cdc.gov/travel/yellowbook/ch4/hep-b.aspx>.

Enteric parasites

Centers for Disease Control and Prevention. Parasites. 2015. [Cited June 9, 2016] Available at: <http://www.cdc.gov/parasites/>.

Hepatitis B

Centers for Disease Control and Prevention. Viral Hepatitis—Hepatitis B Information. Hepatitis B FAQs for Health Professionals. 2016. [Cited June 9 2016] Available at: <http://www.cdc.gov/hepatitis/hbv/hbvfaq.htm#overview>.
Public Health Agency of Canada. Primary Care Management of Hepatitis B – Quick Reference (HBV-QR). 2014. [Cited June 9 2016] Available at: <http://www.phac-aspc.gc.ca/publicat/hep/hbv-vhb/index-eng.php>.

Department of Health & Human Services. Interpretation of hepatitis B serologic test results. Centers for Disease Control and Prevention, 2005. [Cited June 9 2016] Available at: <http://www.cdc.gov/hepatitis/hbv/pdfs/serologicchartv8.pdf>.

Hepatitis C

Toronto Public Health. Hepatitis C Management—Quick Reference Guide.

[Cited June 9 2016] Available at:

[https://www1.toronto.ca/City%20Of%20Toronto/Toronto%20Public%20Health/Health%20Professionals/Communicable%20Diseases/Files/pdf/Treatment%20Guidelines/hep_C_Guidelines_eng_V\(1\)_aoda.pdf](https://www1.toronto.ca/City%20Of%20Toronto/Toronto%20Public%20Health/Health%20Professionals/Communicable%20Diseases/Files/pdf/Treatment%20Guidelines/hep_C_Guidelines_eng_V(1)_aoda.pdf).

Tuberculosis

Canadian Thoracic Society. Canadian Tuberculosis Standards, 7th edition 2013.

[Cited Feb 1 2016] Available at: <http://www.respiratoryguidelines.ca/tb-standards-2013>.

Zwerling A, Behr M, Verma A, Brewer T, Menzies D, Pai M. The BCG World Atlas: a database of global BCG vaccination policies and practices. McGill University [Cited Feb 1 2016] Available at: <http://www.bcgatlas.org/index.php>.

Public Health Agency of Canada. International Tuberculosis Incidence Rates

[Cited Feb 1 2016] Available at: <http://www.phac-aspc.gc.ca/tbpc-latb/itir-eng.php>.

McGill University & McGill University Health Centre. The Online TST/IGRA Interpreter Version 3.0. [Cited Feb 1 2016] Available at:

<http://www.tstin3d.com/en/calc.html>.

Immunizations

Publicly Funded Immunization Schedule for Ontario-October 2015. [Cited Feb 1 2016] Available at:

http://www.health.gov.on.ca/en/pro/programs/immunization/docs/immunization_schedule.pdf.

Public Health Agency of Canada. National Advisory Committee on

Immunizations. 2016. [Cited Feb 1 2016] Available at: <http://www.phac-aspc.gc.ca/naci-ccni/index-eng.php>.

Translated Resources for Patients

Harborview Medical Center. EthnoMed [Cited Feb 1 2016] Available at:

<http://ethnomed.org/patient-education>.

Ontario Ministry of Health and Long Term Care. Health Care Options near you.

[Cited Feb 1 2016] Available at:

<http://www.health.gov.on.ca/en/public/programs/hco/factsheets.aspx>.

Hamilton Health Sciences. Health resources in multiple languages. [Cited Feb

1 2016] Available at: <http://www.hhsc.ca/body.cfm?id=1786>.

