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Hepatitis C in Migrants: An Underappreciated group at increased risk

Presented by: Dr. Chris Greenaway,
Associate Professor of Medicine, McGill University

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Hepatitis C in Migrants: An Underappreciated group at increased risk

Dr. Christina Greenaway is an Associate Professor of Medicine at McGill University and an Associate member in the Department of Epidemiology, Biostatistics and Occupation Health. Her primary appointment is in the Divisions of Infectious Diseases and Laboratory Medicine at the Jewish General Hospital, and she is a Principle Investigator at the Centre for Clinical Epidemiology at the Lady Davis Institute for Medical Research and staff physician at the JD Maclean Tropical Medicine Center at McGill. Her research program is focused on immigrant and refugee health issues and promoting health equity for this population. She has published several observational studies that have highlighted the increased burden of infectious disease borne by the immigrant population including childhood vaccine preventable diseases, viral hepatitis and tuberculosis. She has used this data to inform public health policy by performing economic analyses and has shown that it is cost-effective to screen and vaccinate immigrants for varicella and hepatitis B. She has been a member of the Canadian Collaboration of Immigrant and Refugee Health (CCIRH) since 2007, a pan Canadian consortium of immigrant health experts whose objective is to promote the health of this population. The CCIRH developed Evidence Based Clinical Preventive Guidelines for 18 health conditions for newly arrived migrants that were published in CMAJ (2011) http://www.ccirhken.ca/index.html. Dr Greenaway was the lead author on 5 of the Infectious Disease Guidelines including hepatitis C.

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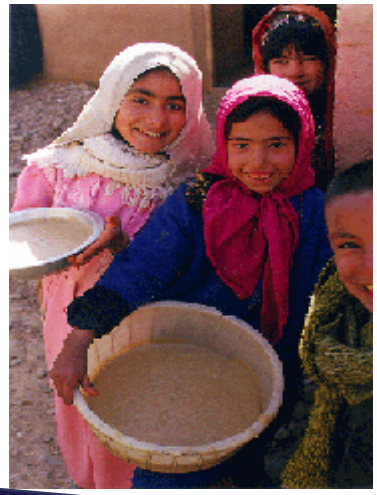
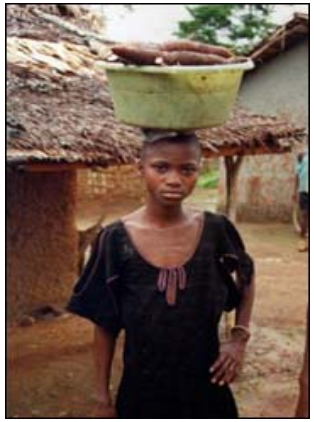
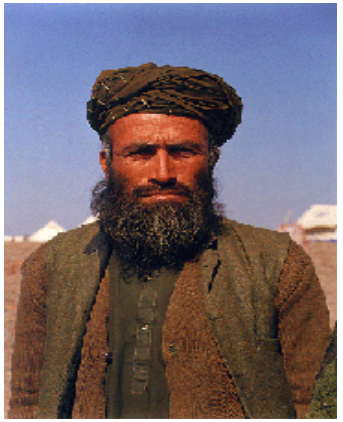


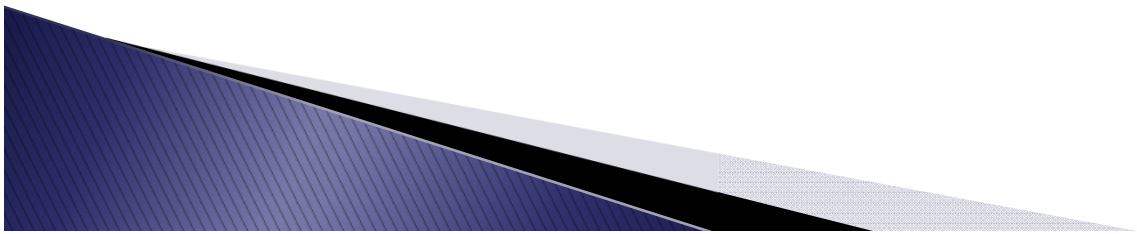




Dr. Chris Greenaway

Associate Professor of Medicine, McGill University,
Division of Infectious Diseases, Jewish General Hospital
Centre for Clinical Epidemiology, Lady Davis Institute for Medical Research
Dept. of Epidemiology & Biostatistics, McGill University

Outline

- Demographics of immigration to Canada
- Factors influencing health and barriers to health care for migrants
- HCV in migrants
- Screening migrants for HCV



Migration in Canada

- 6.8 M immigrants (20.6%) of Canadian population (2011 NHS)
- Receive ~250,000 new immigrants/yr >80% from hepatitis endemic countries
- Immigrants concentrated in urban areas
- 95% live in 4 provinces
  Ontario (53%),
  BC (17.6%)
  Quebec (14.4%)
  Alberta (9.5%)
- 63% go to 3 cities
  Toronto (46%)
  Vancouver (40%)
  Montreal (22.6%)

2013 Stats Can. NHS 2011. 99-010-X2011001

Pre-Immigration Screening

- Pre-immigration screening for immigrants includes:
  - Physical exam
  - Tuberculosis screening (CXR)
  - VDRL (> 15 years of age)
  - Urinalysis (> 15 years of age)
  - HIV screening (began in 2002)

- Preventive health care issues are not addressed in the pre-immigration screening program.
- Viral Hepatitis is not screened for

Health Status of New Immigrants

Healthy Immigrant Effect
Lower all cause mortality early
(SMR=0.34-0.40)

BUT

2-4 fold higher mortality from liver cancer and viral hepatitis vs. Canadian born

Health status declines rapidly in refugees, women, poverty, poor language proficiency

Singh Can J Public Health 2004:95:14-21 DesMeules Can J Public Health 2004:95:22-26 DesMeules J Imm Health 2005:7:221-232

Barriers to Health Care: Patient Factors

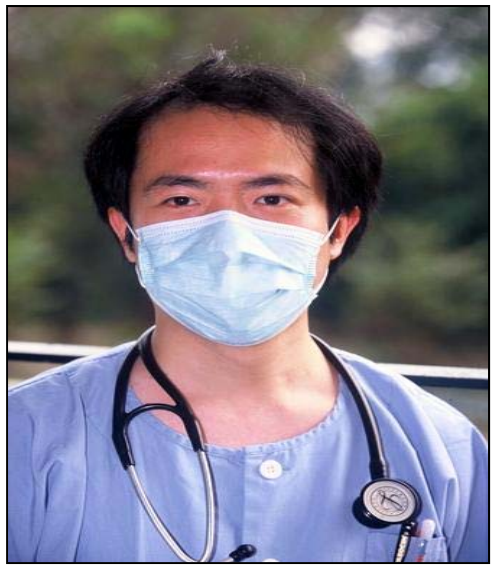
- Legal status (potential detention)
- Lack of health insurance (legal status, cultural)
- Economic resources

- Family/Community support network

- Level of Education
- Cultural Beliefs
- Language Skills

Provider/System Level Barriers

- Lack of formal training
- Lack of interpreters and culturally tailored health materials.
- Lack multi-disciplinary team to manage complex health issues



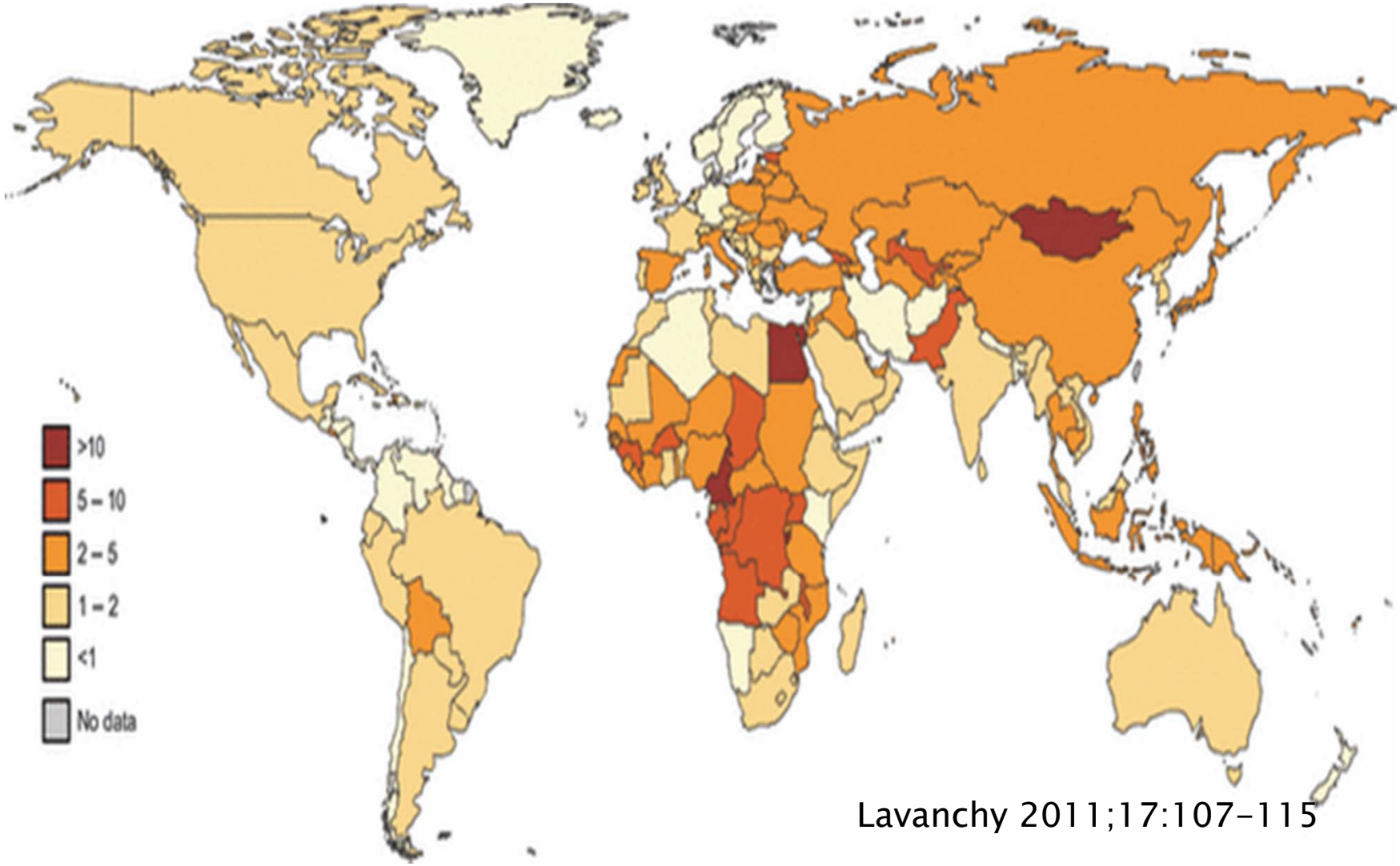
Canadian Collaboration for Immigrant and Refugee Health (CCIRH) Preventive Clinical Care Guidelines

- Pan Canadian consortium of immigrant health experts:primary care, academia, public health
- 19 Health Conditions: Infect Dis, Women's Health, Mental Health, Chronic Diseases
- To increase awareness and provide guidance on important health conditions for primary care practitioners
- To improve health status of migrants

Pottie K, Greenaway C, Feightner J, et al. Evidence-based clinical guidelines for immigrants and refugees. **CMAJ. 2011 Sep 6;183(12):E824-925**

Global HCV seroprevalence

~2%-3%



Lavanchy 2011;17:107-115

HCV in Migrants

- Transmission due to contaminated needles, unscreened blood and unsafe medical procedures.
- 40% of infections globally
- Less likely to have traditional risk factors such as drug use <5%

- Estimated to have a prevalence of ~2% and account for ~30% of HCV cases in Canada

- Under detection 44% in Canada, ? immigrants

Greenaway CMAJ 2011:83(12):E861-E864, Trubnikov. CCDR 2014; 40 (19); 429-426

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CCIRH HCV Recommendations

- Screen immigrants from countries with an HCV prevalence of $\geq 3\%$

- Includes many countries (poor global data)
  Middle East: Egypt, Iraq
  West and Central Africa: Cameroon, Congo
  Asia: Pakistan, Cambodia, Vietnam, Mongolia
  Eastern Europe: Romania, Russia, Ukraine
  Few countries in South America ie Bolivia

Greenaway et al. CMAJ 2011 Sep 6: 183(12):E861-E864

HCV Screening Recommendations for Migrants

- With new highly effective drugs likely will be cost-effective to screen at lower seroprevalence than 3%

- Recent study in Canada cost-effective for birth cohort screening ages 25-64 or 45-64 $34,359 to $44,035/QALY
- Prevalence ranged from 0.4%-0.8%
- Did not model screening immigrants

Wong et al CMAJ 2015;DOI:10.1503/cmaj.140711

The Global Village