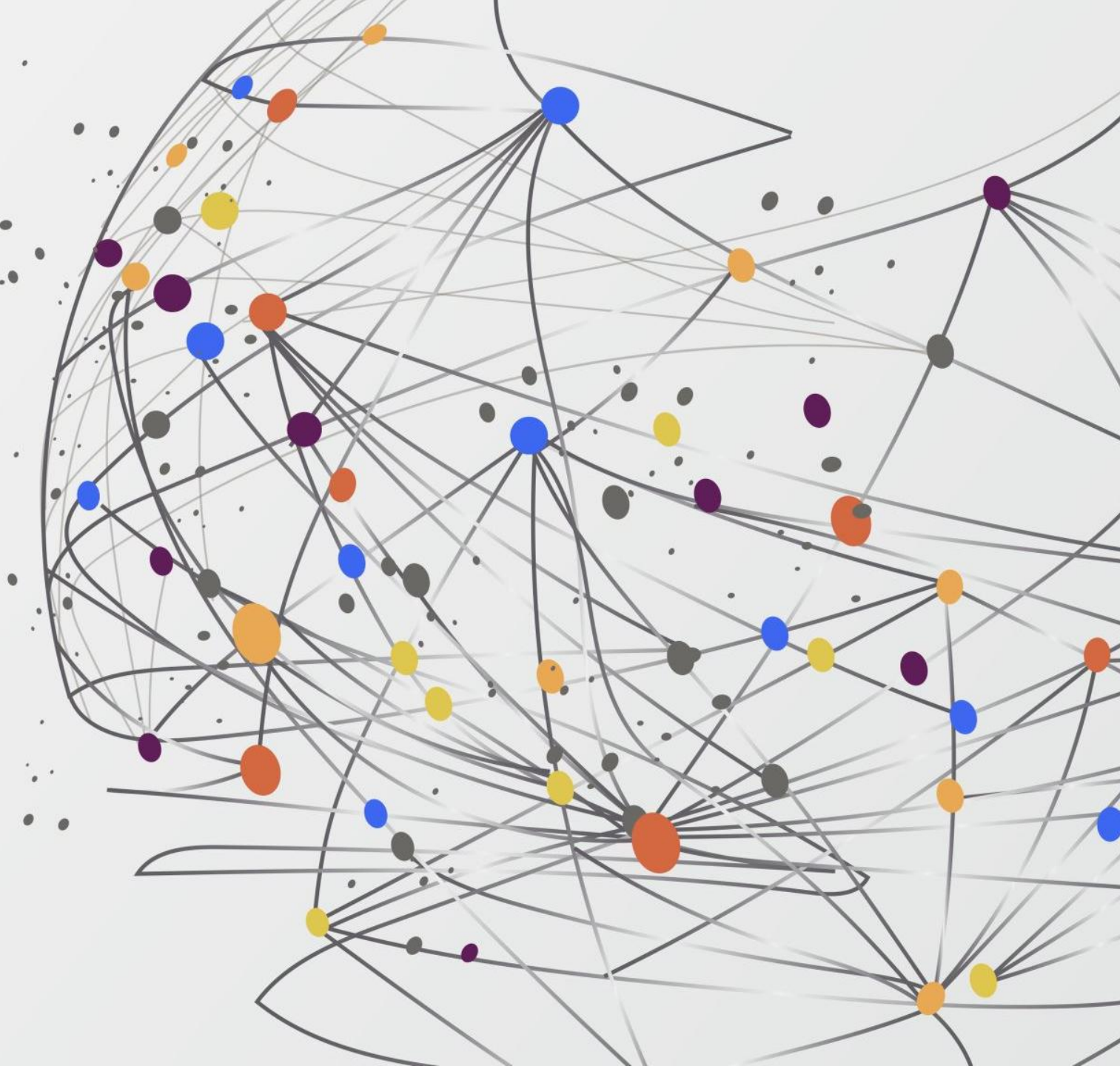
Immigrant and Refugee Health in Muskoka

FEB 11, 2026

DR. MELANIE MAR



Objectives:

- Describe Canadian immigration trends and population changes in Muskoka
- List barriers to care for immigrants and refugees
- Describe evidence-based recommendations for immigrants and refugees
- List resources available to support culturally sensitive care

Mr. M.M.

- 27 yr old man immigrated to Canada in 2020 from India
- Had an Immigration Medical Examination prior to arrival
- No health investigations since
- Reports being vaccinated in India and possibly in Canada but has no records
- He presents with:
  - urinary frequency for 3 yrs
  - penile lesions for 2 yrs
  - hematochezia intermittently , chest pain and generalized weakness
  - when asked, he discloses his wife recently had a positive TB skin test

Ms. A.B.

- 28 y F moved from India 6 months ago
- Both parents were diabetic and father died
- She believes her father died from the diabetic medications he was on
- Takes her metformin/inositol & empagliflozin 50% of the time
- HbA1C: 11.8% , LDL 3.54
- Vitamin D: 37

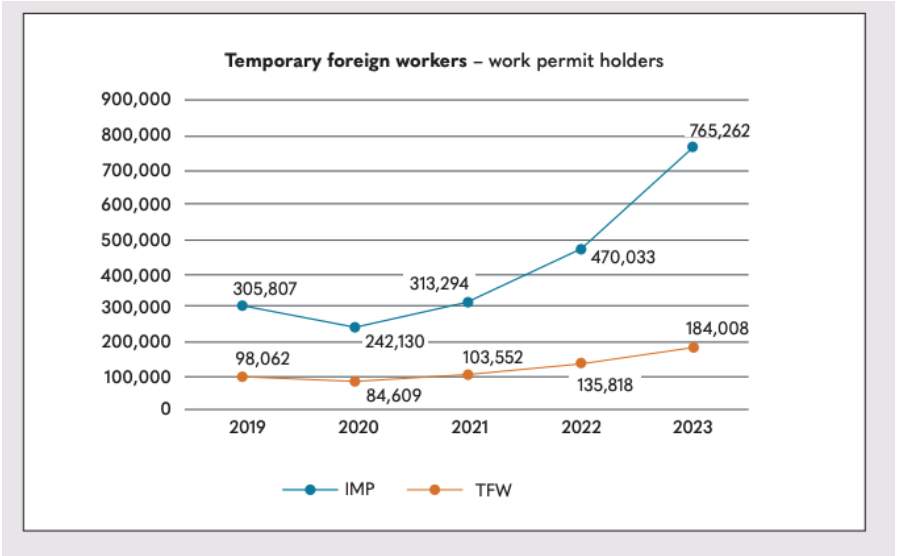
Canadian Landscape

- Canada received approx. 435 500 immigrants and refugees in 2025
- Immigration is the primary driver of Canada's population expansion
- Accounts for approx. 20% of the population
- Current challenges:
  - Rising asylum claims and multiple humanitarian crises
  - Labour market shortages
  - Systemic pressures in housing, healthcare and social services

Canadian Immigration

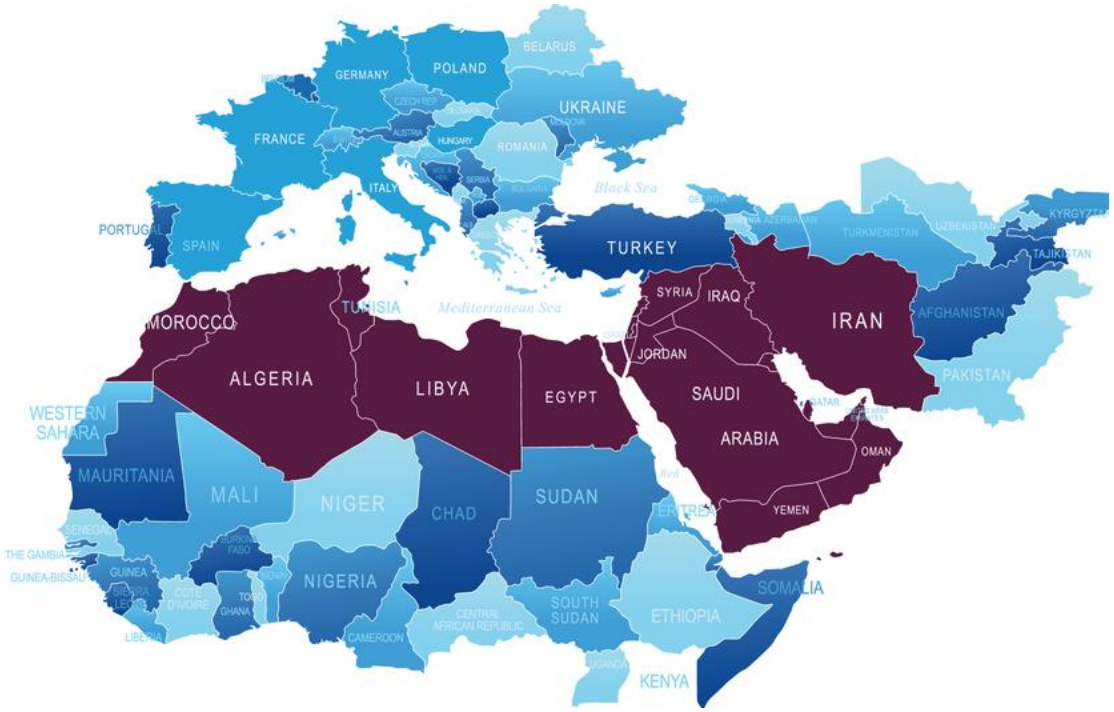
- Temporary Residents:
  - Temporary workers
  - International Students
  - Seasonal workers
  - Visitors
  - Asylum/refugee claimants

- Permanent Residents:
  - Economic
  - Family
  - Refugees and Protected Persons



Primary source countries seeking Canadian Permanent Residency

- Economic and Family Reunification
  - India
  - Philippines
  - Cameroon
  - China
  - Nigeria
- Refugees and Protected Persons
  - Afghanistan, Syria, Eritrea, Iraq, Somalia, Ethiopia
- Human and Compassionate
  - Colombia, Haiti, China, Venezuela, Ukraine



Immigrant Populations in Muskoka

- Visible Minorities
  - 11.4% of Simcoe Muskoka population
    - South Asian – 25%
    - Black – 29%
    - Latin American 12%

Top places of birth of immigrants, Huntsville (Town), 2016 and 2021

	2016			2021		
	Number	%	Rank	Number	%	Rank
Immigrant population	1,440	100.0	...	1,640	100.0	...
United Kingdom	410	28.6	1	500	30.5	1
United States of America	130	9.1	3	180	11.0	2
Germany	165	11.5	2	165	10.1	3
Poland	70	4.9	5	65	4.0	4
Italy	35	2.4	6	55	3.4	5
Netherlands	120	8.4	4	55	3.4	5
India	20	1.4	11	55	3.4	5
Philippines	20	1.4	11	40	2.4	8
Portugal	30	2.1	7	30	1.8	9
Trinidad and Tobago	25	1.7	9	30	1.8	9

Top places of birth of recent immigrants, Huntsville (Town), 2016 and 2021

	2016			2021		
	Number	%	Rank	Number	%	Rank
Recent immigrants (2016: 2011 to 2016 / 2021: 2016 to 2021)	75	100.0	...	95	100.0	...
United Kingdom	10	13.3	2	25	25.0	1
India	20	26.7	1	15	15.0	2

Interim Federal Health Program

- Temporary health care to protected people – resettled refugees or refugee claimants
- Administered by Medavie Blue Cross
- Coverage can include:
  - Basic (similar to provincial plans)
  - Supplemental (dental, vision, home care, therapy, hearing aids, psychology)
  - Prescription drug (on provincial formularies)

Canadian Immigrants

Barriers to care:

- Language and cultural differences
- Lack of navigation services and familiarity with preventative care
- Distrust or unfamiliarity of a new health care system
- Healthcare providers' lack of experience with country specific diseases
- Complex health insurance eligibility
- Limited pre-arrival health care

Health Risks:

- Exposures to vector-borne diseases
- Poor living conditions with safe water and sanitation
- Trauma
- Social stratification (e.g., race, sex, income, education, occupation)
- Lack of access to primary care (inc. vaccinations, screening)
- Genetic predispositions
- The "healthy immigrant effect"

Immigration Medical Examination

To assess the potential burden of illness and screen for a limited number of public health risks

Required for all permanent residents and some temporary residents

Includes:

Physical examination
HIV, syphilis testing
CXR

Evidence-Based Recommendations: Infectious Disease

	Children	Adults
MMR	Age appropriate guidelines	1 dose if no records
DpTP	Age appropriate guidelines	Primary series (3 doses)
Varicella	Vaccinate if < 13 if no serology	Screen first if > 13 from tropical
Hep B	Screen high risk countries	Screen high risk countries
TB	Screen < 20 and high risk country	Screen 20-50 yr refugees from high risk country
HIV	Screen from high risk country	Screen from high risk country
Hep C		High risk countries
Strongyloides	Screen from SE Asia and Africa	Screen from SE Asia and Africa
Schistosoma	Screen from Africa	Screen from Africa

Pottie et. al (2011). Evidence-based clinical guidelines for immigrants and refugees. CMAJ. Sept 6, 2011; 183 (12)

Vaccine Schedules

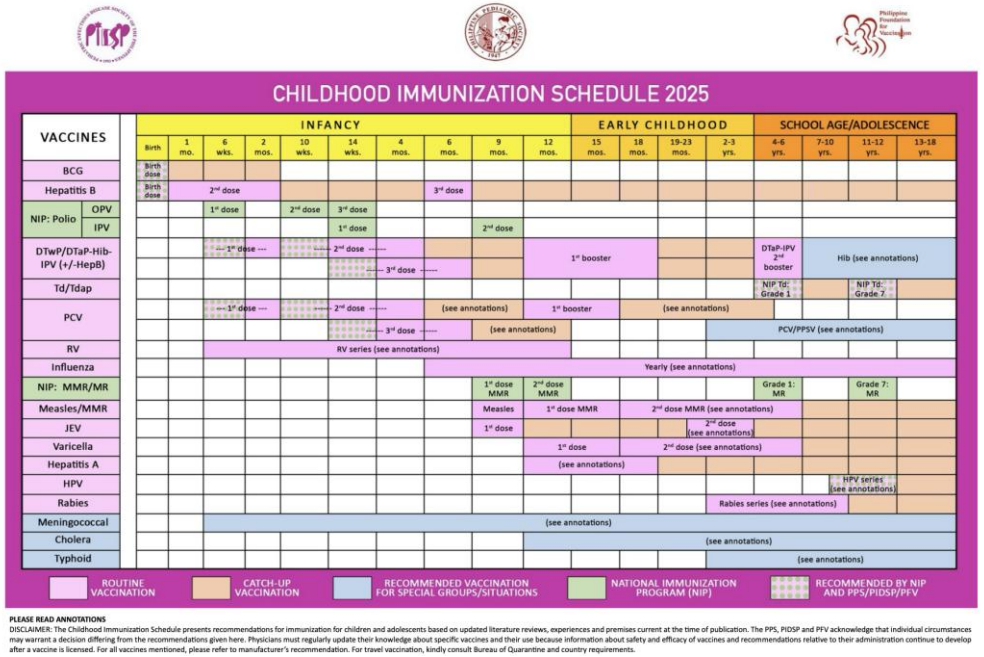
Table 3: Recommended immunization schedule, children (7 to 17 years of age), NOT previously immunized

- **For children at-risk due to underlying medical conditions,** refer to Table 4 for additional recommendations for immunization.
- [ ] = dose(s) may not be required depending upon age of child or vaccine used or both (refer to the relevant vaccine-specific chapter in Part 4 and provincial/territorial schedule). mos = months. yrs = years.
- Refer to Timing of vaccine administration and Vaccine administration practices in Part 1 regarding administration of multiple injections.
- Refer to the vaccine-specific chapters in Part 4 for additional information.

Table 3: Recommended immunization schedule, children (7 to 17 years of age), not previously immunized

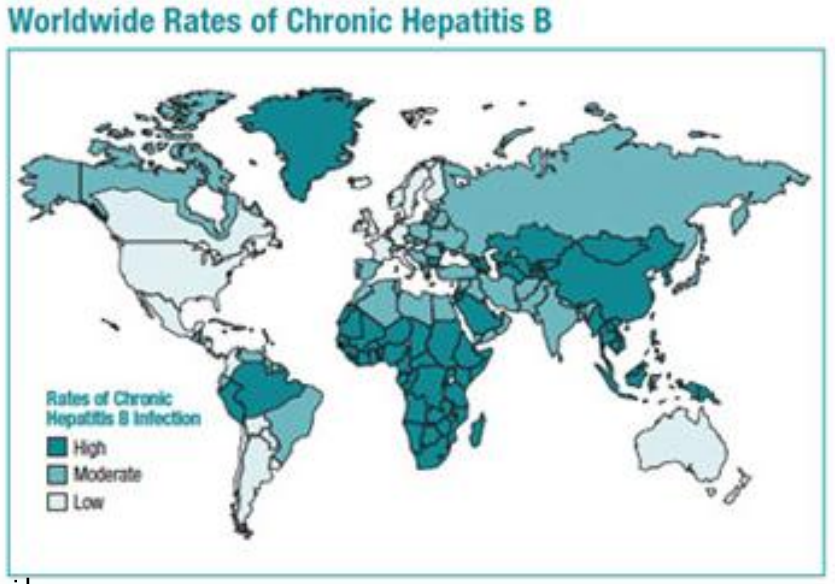
Vaccine *	First visit	Time after first visit				6-12 mos after last dose	10 yrs after last dose
		4 weeks	8 weeks	3 mos	6 mos		
Tdap-IPV Tdap	A	-	A		-	A	B
Men-C-C	[C] 7-11 years of age	-	-	-	-	-	-

https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-13-recommended-immunization-schedules.html#p1c12a4



https://vaccineknowledge.ox.ac.uk/vaccination-schedules-other-countries#Asia

Hepatitis B



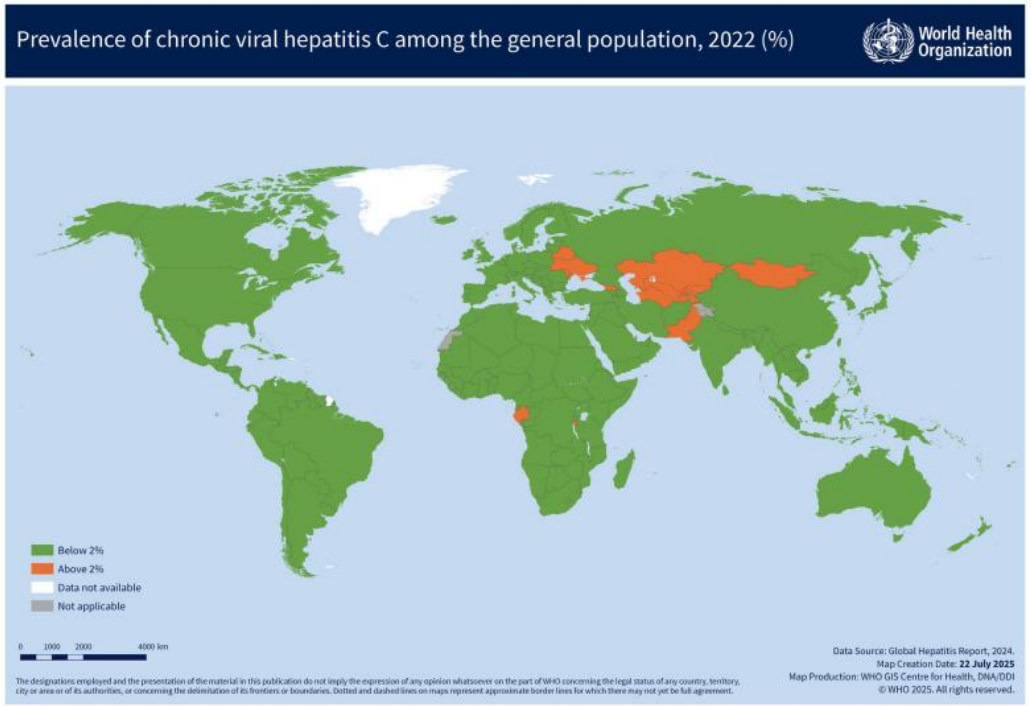
- Seroprevalence of HB: 0.68% (Canadian-born) vs.

  4.2% (Immigrants)
- Immigrants: 2-4x higher risk of death
- Children: 1-2% risk/yr up to age 10 of acquiring from affected family

<u>Recommendations</u>:

- Screen adults and children where prevalence > 2%
  - Sub-Saharan Africa, Southeast Asia and Pacific Islands, China,
  - HBsAg, HBcAb, HBsAb
  - Vaccinate if non-immune
    - Covered if < 7, household & sexual contacts of chronic carriers and acute cases

Hepatitis C

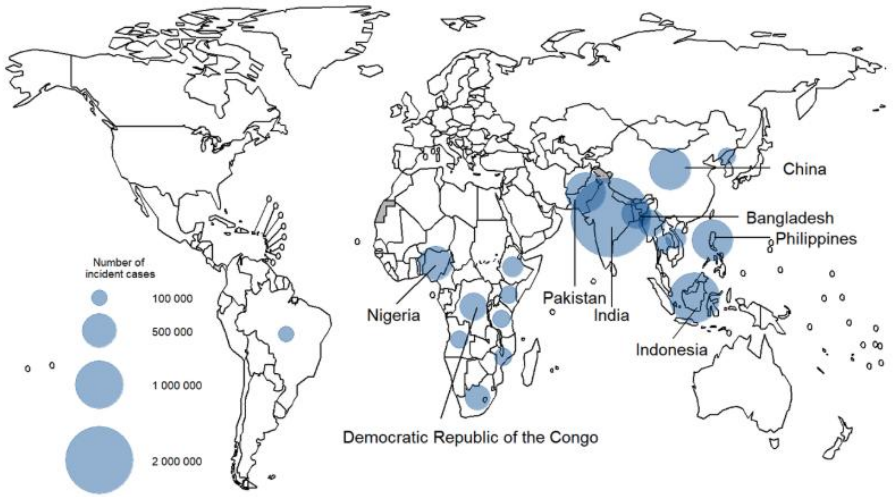


<u>Recommendation:</u>

- Screen those from high risk countries

Tuberculosis

Fig. 1.1.2 Estimated number of incident TB cases in 2023, for countries with at least 100 000 incident cases

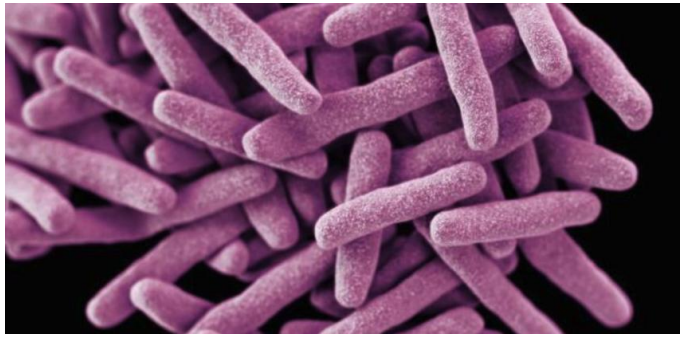


Canada overall rate is 5 active cases per 100 000

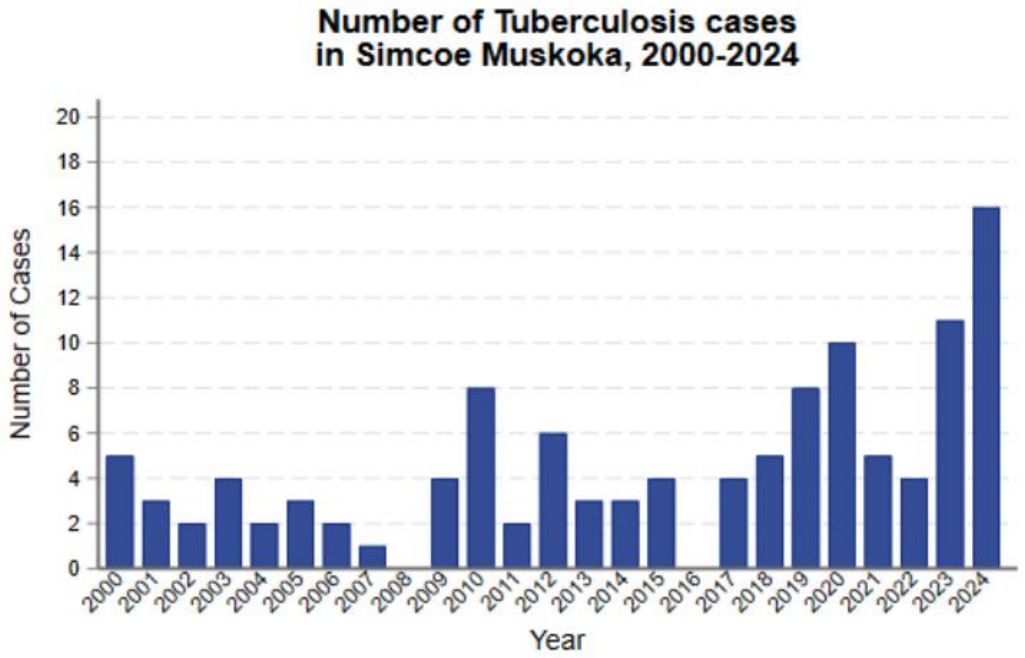
Foreign born accounts for 65% of active TB cases

Highest risk: Country of origin, refugees, medical comorbidity

Tuberculosis:

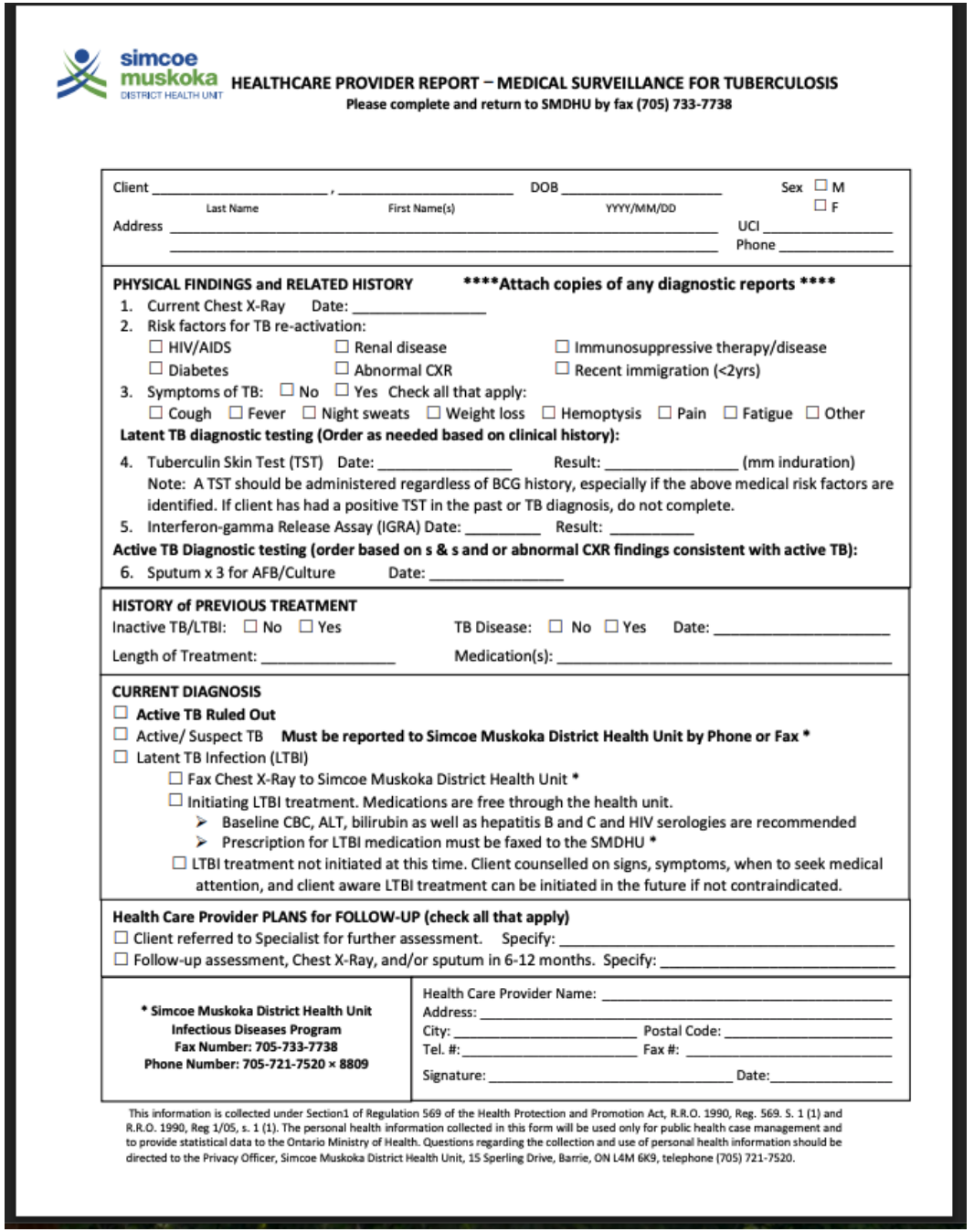


- Most cases of TB are not found on pre-immigration screening
- IME:
  - CXR for active TB if >/= 11 yrs
  - IGRA maybe for high risk
- No routine post-arrival or return traveller screening programs



Medical Surveillance for Inactive TB:

- prior TB
- inactive pulmonary TB
- extrapulmonary TB
- recent close contacts with active TB
- high risk of reactivation



simcoe muskoka DISTRICT HEALTH UNIT

HEALTHCARE PROVIDER REPORT – MEDICAL SURVEILLANCE FOR TUBERCULOSIS

Please complete and return to SMDHU by fax (705) 733-7738

Client _____ , _____ DOB _____ Sex ☐ M ☐ F
Last Name First Name(s) YYYY/MM/DD

Address _____ UCI _____

_____ Phone _____

PHYSICAL FINDINGS and RELATED HISTORY ****Attach copies of any diagnostic reports ****

1. Current Chest X-Ray Date: _____
2. Risk factors for TB re-activation:
   ☐ HIV/AIDS ☐ Renal disease ☐ Immunosuppressive therapy/disease
   ☐ Diabetes ☐ Abnormal CXR ☐ Recent immigration (<2yrs)
3. Symptoms of TB: ☐ No ☐ Yes Check all that apply:
   ☐ Cough ☐ Fever ☐ Night sweats ☐ Weight loss ☐ Hemoptysis ☐ Pain ☐ Fatigue ☐ Other

Latent TB diagnostic testing (Order as needed based on clinical history):

4. Tuberculin Skin Test (TST) Date: _____ Result: _____ (mm induration)
   Note: A TST should be administered regardless of BCG history, especially if the above medical risk factors are identified. If client has had a positive TST in the past or TB diagnosis, do not complete.
5. Interferon-gamma Release Assay (IGRA) Date: _____ Result: _____

Active TB Diagnostic testing (order based on s & s and or abnormal CXR findings consistent with active TB):

6. Sputum x 3 for AFB/Culture Date: _____

HISTORY of PREVIOUS TREATMENT

Inactive TB/LTBI: ☐ No ☐ Yes TB Disease: ☐ No ☐ Yes Date: _____

Length of Treatment: _____ Medication(s): _____

CURRENT DIAGNOSIS

☐ **Active TB Ruled Out**
☐ Active/ Suspect TB **Must be reported to Simcoe Muskoka District Health Unit by Phone or Fax ***
☐ Latent TB Infection (LTBI)
   ☐ Fax Chest X-Ray to Simcoe Muskoka District Health Unit *
   ☐ Initiating LTBI treatment. Medications are free through the health unit.
      - Baseline CBC, ALT, bilirubin as well as hepatitis B and C and HIV serologies are recommended
      - Prescription for LTBI medication must be faxed to the SMDHU *
   ☐ LTBI treatment not initiated at this time. Client counselled on signs, symptoms, when to seek medical attention, and client aware LTBI treatment can be initiated in the future if not contraindicated.

Health Care Provider PLANS for FOLLOW-UP (check all that apply)

☐ Client referred to Specialist for further assessment. Specify: _____
☐ Follow-up assessment, Chest X-Ray, and/or sputum in 6-12 months. Specify: _____

*** Simcoe Muskoka District Health Unit**
Infectious Diseases Program
Fax Number: 705-733-7738
Phone Number: 705-721-7520 x 8809

Health Care Provider Name: _____
Address: _____
City: _____ Postal Code: _____
Tel. #: _____ Fax #: _____
Signature: _____ Date: _____

This information is collected under Section1 of Regulation 569 of the Health Protection and Promotion Act, R.R.O. 1990, Reg. 569. S. 1 (1) and R.R.O. 1990, Reg 1/05, s. 1 (1). The personal health information collected in this form will be used only for public health case management and to provide statistical data to the Ontario Ministry of Health. Questions regarding the collection and use of personal health information should be directed to the Privacy Officer, Simcoe Muskoka District Health Unit, 15 Sperling Drive, Barrie, ON L4M 6K9, telephone (705) 721-7520.

Tuberculosis

Recommendations:

- Screen all ages from high risk countries
- Additional high risk factors:
  - Age extremes
  - Respiratory disease
  - Immunocompromised (HIV, cancer, diabetes)
  - Shelters and refugee camps
  - Occupational exposures

TB Skin Test vs. IGRA

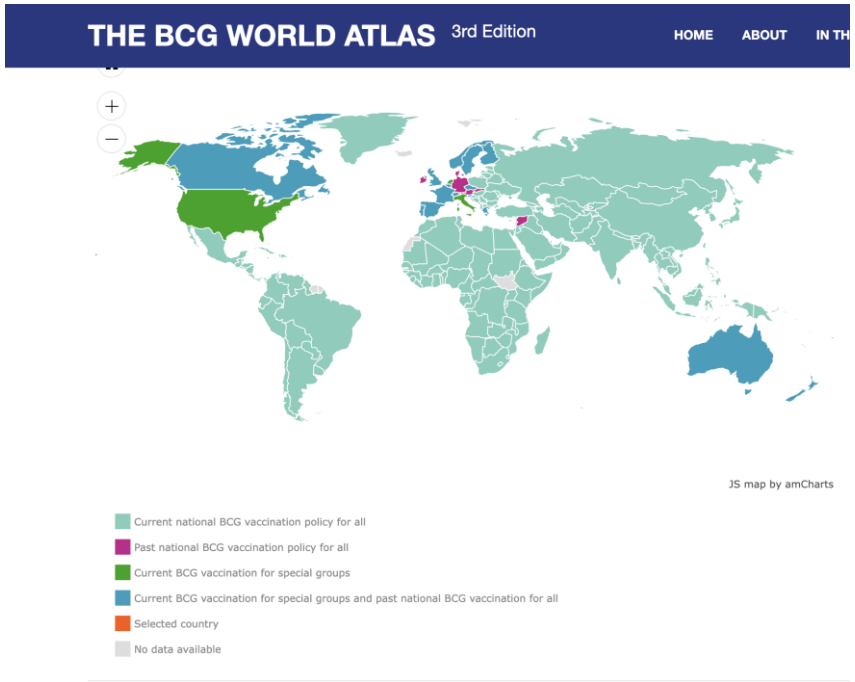
TST result	Situation in which reaction is considered positive*
0-4 mm	In general this is considered negative, and no treatment is indicated.
	Child under 5 years of age and high risk of TB infection
≥5 mm	HIV infection
	Contact with infectious TB case within the past 2 years
	Presence of fibronodular disease on chest x-ray (healed TB, and not previously treated)
	Organ transplantation (related to immune suppressant therapy)
	TNF alpha inhibitors
	Other immunosuppressive drugs, e.g. corticosteroids (equivalent of ≥15 mg/day of prednisone for 1 month or more; risk of TB disease increases with higher dose and longer duration)
	End-stage renal disease
≥10 mm	All others, including the following specific situations: - TST conversion (within 2 years) - Diabetes, malnutrition (<90% ideal body weight), cigarette smoking, daily alcohol consumption (>3 drinks/day) - Silicosis - Hematologic malignancies (leukemia, lymphoma) and certain carcinomas (e.g. head and neck)

VS.

In general
•the BCG vaccine scar has a raised center
•the smallpox vaccine scar is depressed, with lines that radiate to the edges

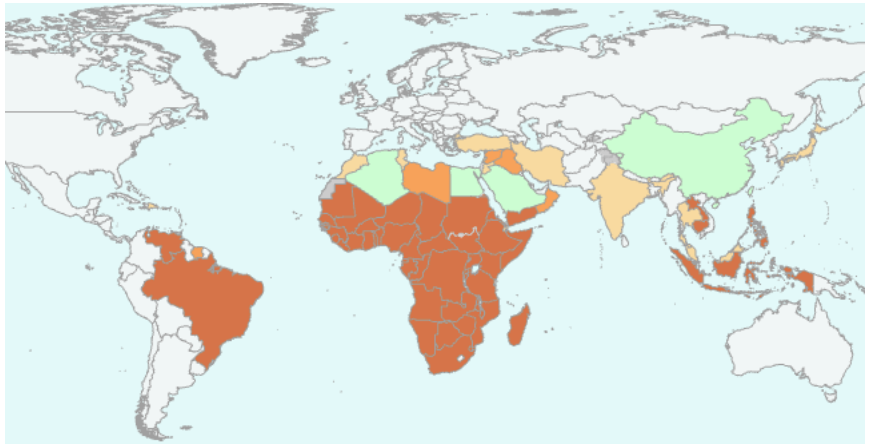
Interferon Gamma Release Assay (Quantiferon TB)

- More specific (98%) than TST (60%) in those with prior BCG
- $104.00



Intestinal Parasites: Strongyloides & Schistosoma

- Can persist for decades with low grade disease, nonspecific manifestations
  - Schistosomiasis:
    - Acutely (asymptomatic, rash, fever, headache, myalgia, cough, eosinophilia)
    - Chronic (diarrhea, constipation, hematochezia, GI ulcers, polyposis, rarely CNS)
  - Strongyloidiasis:
    - Asymptomatic, abdominal pain, diarrhea, rash
- Can become disseminated in immunosuppressed



<u>Recommendation</u>:

- Screen from Southeast Asia (both) and Africa (Schistosomiasis only)

  with serology

Evidence-Based Recommendations: Chronic and non-communicable disease

	Children	Adults
Diabetes		> 35 from South Asia, Latin America, Africa
Iron Deficiency Anemia	1-4 yrs	Reproductive age women
Dental disease	All – for caries	All - for pain
Visual health	Age appropriate	Age appropriate
Depression		Consider screening

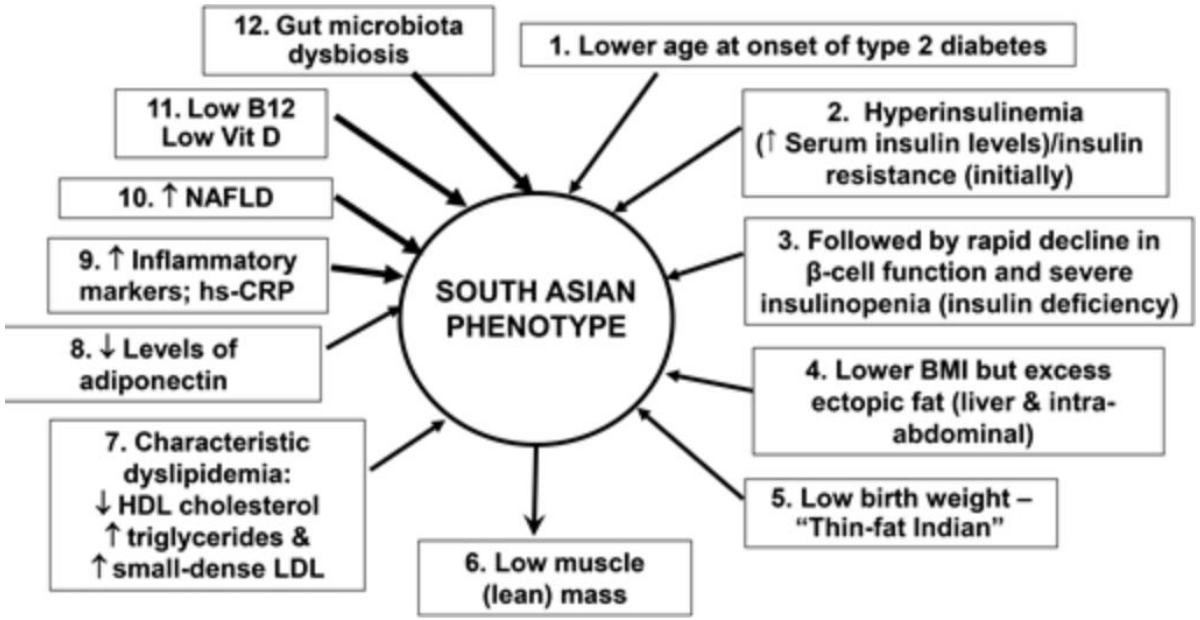
Pottie et. al (2011). Evidence-based clinical guidelines for immigrants and refugees. CMAJ. Sept 6, 2011; 183 (12)

Type 2 Diabetes

- Increased risk in South Asians, Africans and Latin Americans
- 2-4x higher prevalence than Caucasians in Canada
- Younger age of onset
- South Asian phenotype

<u>Recommendation:</u>

- Screen immigrants and refugees > 35 from high risk ethnic groups (South Asian, Latin America and Africa)
- Culturally appropriate diet and exercise planning
  - https://diabetes.ca/nutrition-fitness/meal-planning



https://doi.org/10.2337/dci24-0046

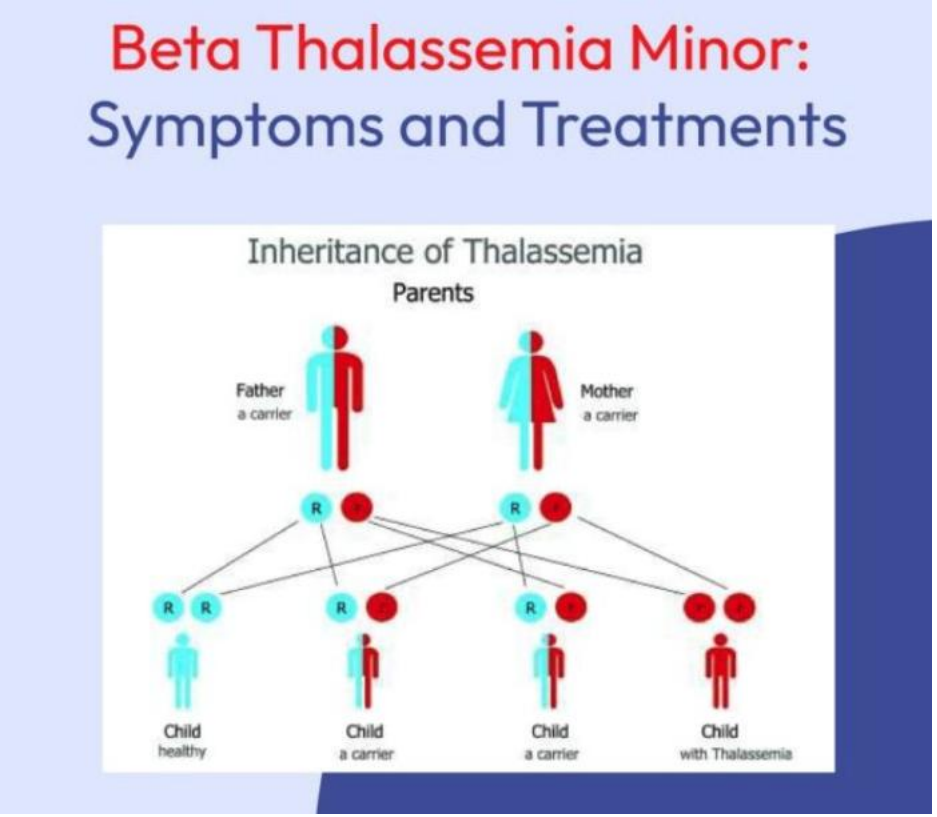
Iron deficiency anemia

- Most common nutritional deficiency in the world
- Poor access and intake, decreased absorption, high parity, co-existing inherited RBC disorders, hookworm/parasites or malaria
- Impacts poor pregnancy outcomes, physical and cognitive pediatric development, work productivity
- Toronto: 2011-2014: 21% anemia vs. 2-10% Canadian-born women and children

<u>Recommendation:</u>

- Screen immigrant and refugee women of reproductive age and children 1-4 years old for iron deficiency anemia
- Consider screen for hemoglobinopathies

Hemoglobinopathy



- Thalassemias (Africa, Mediterranean and Asia)
  - Alpha-thalassemia
    - Deletions on 1 or more alpha globin genes on chromosome 18)
  - Beta-thalassemia
    - Mutations on 1 of 2 beta globin genes
- Sickle cell disease (subSaharan Africa, Mediterranean, Middle east)
- G6PD deficiency (Africa, Mediterranean, Asia)
  - X-linked

Cervical cancer screening

- 4th most common cancer in women globally
- Highest incidence and mortality rates in low and middle-income countries
- Higher mortality rates and lower screening rates among foreign born women in Canada
- Barriers:
  - lack of screening and vaccination
  - Sexual violence
  - Immunocompromise
- Toronto 2011-2014: higher prevalence of abnormal paps ; 11% v 5% (Canadian)

<u>Recommendation:</u>

- Offer vaccination for females age 9 to 26 yrs
- Offer cervical cancer screening to all sexually active women >/= 25 yrs

No universal screening

- PTSD
- Intimate partner violence
- Social isolation in pregnancy

Ukranian Refugees:

- Additional Clinical Considerations:
  - Ask about disruption in treatment for non-communicable diseases and chronic infections
  - PTSD, anxiety, depression/suicidal risk
  - Alcohol use
  - Hepatitis screening
  - TB screening
  - Vaccinations

Key points

- Clinical preventative care should be guided by the person's country of origin and migration history
- Barriers to care include language, low income and lack of social resources and primary care, no prior preventative care
- Key medical concerns:
  - Immunization – MMR, DTaP-IPV, varicella, hep B, HPV
  - Infectious disease screening – TB, HIV, HCV, HBV, parasites
  - Iron deficiency , Diabetes, vision and dental
  - Cervical cancer screening

Resources & References:

- Voyce
  - Immediate on-line access to medically qualified interpreters in 250 languages
- The Atlas: A refugee health and settlement hub – guidelines, checklists
  - https://blog.rh2c.org/for-clinicians
- Caring for Kids New to Canada
  - https://kidsnewtocanada.ca/
- BCG World Atlas:
  - http://bcgatlas.org/index.php
- Canadian Collaboration for Immigrant & Refugee Health
  - https://ccirhken.ca/e-clinical-checklist-for-new-immigrants-and-refugees/
- NHS Migrant Health Guide: Countries A to Z
  - https://www.gov.uk/government/collections/migrant-health-guide-countries-a-to-z

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