Migration Medicine as a Young Science: Challenges and Opportunities

American College of Physicians
Minnesota Chapter Meeting
Minneapolis, Minnesota
November 8, 2018

Patricia F Walker, MD, DTM&H, FASTMH
Professor of Medicine, University of Minnesota
Medical Director, HealthPartners
Travel and Tropical Medicine Center

Photo credit: Albany Daily Star, June 2016
Notes on a Young Science

• Challenges in migration medicine
• History of modern refugee protection
• Dispelling myths about migrants
• Opportunities/successes in migration medicine
• Imagining our future in migration medicine – what should we work towards?
Challenges in migration medicine…

• Rise of nationalism and xenophobia
• Rhetoric based on fear and not facts
• Ignoring international human rights law
• Loss of a moral compass…
• Not to mention the medical and public health challenges of caring for migrants!

Credit: Niall McCarthy 5/16/16
Challenges in migration medicine…
Donald Trump elected US President Nov 2016

- Threats to funding for the NIH, CDC, USAID and the Fogarty International Center
- Travel ban – (3 iterations)
- Impacts on science diplomacy, sanctuary cities, DACA..
- Cutting the refugee ceiling
Fallout of Trump’s presidency

- US refugee ceiling reduced from 110,000 to 45,000 to 30,000
- 9 resettlement agencies impacted - many smaller offices closing
- Fewer services available to help new arrivals adjust

**Exclusive: State Department Tells Refugee Agencies to Downsize U.S. Operations**

By REUTERS  Dec 21, 2017, 4:41 P.M. EST.

(Reuters) - The U.S. State Department has told refugee agencies it will sharply pare back the number of offices across the country authorized to resettle people in 2018 as President Donald Trump cuts the number of refugees allowed into the United States.

The announcement was made at a Dec. 1 meeting in Washington with State Department officials and representatives from nine major refugee agencies, several executives of the agencies said.

Advocates said the decision is likely to lead to the closure of dozens of resettlement offices around the country, potentially leaving some refugees without access to services that help them integrate into American life. Several state refugee coordinators said they had also been made aware of the closures.

NYT 12/21/17
REPORT CARD
THE TRUMP ADMINISTRATION’S PERFORMANCE ON REFUGEE AND HUMANITARIAN PROTECTION

OVERALL GRADE: F

Refugees International July 2018
Editors: Evidence-Based Policies on Migration and Global Health Are Essential to Maintain the Health of Those Inside and Outside the United States

Human migration is at an all-time high, with one in every 122 humans now either a refugee, internally displaced, or seeking asylum (unhcr.org/news/latest/2015/6/558193896/worldwide-displacement-hits-all-time-high-war-persecution-increase). This global humanitarian crisis has spurred

Restrictions on travel and population movement cannot keep these diseases out of our country. They are already here.

In addition to maintaining a humane and evidence-based U.S. policy on migration, we must continue to engage and invest in programs that improve the health of vulnerable
Key message:
“maintain established U.S. policy toward human migration and global health that is evidence based and upholds the value of compassion, as well as key principles in international human rights law”
President’s proposed budget cuts
March 2017 – ASTMH response

• Proposed 22% cut to NIH
• Cuts to CDC, USAID
• Eliminating the Fogarty International Center
• “Mexico City policy” banning international aid to groups supporting women’s reproductive rights

American Society of Tropical Medicine and Hygiene Society Alarmed at Administration’s Proposal to Slash Funding that Protects America’s Health and Well-Being

Posted 15 March 2017

Cutting the funding of health agencies that protect us from existing and emerging infectious diseases – including the National Institutes of Health (NIH) and, potentially, the Centers for Disease Control and Prevention – along with eliminating the Fogarty International Center, which builds needed scientific capacity in partner countries, is shortsighted and dangerous. These cuts will put the health of millions of Americans at home and abroad at risk. Our international colleagues and partners in research and delivery of care are critical to long-term success in reducing the burden of tropical diseases worldwide. We cannot conduct global health research and work to strengthen healthcare infrastructures in isolation from our international colleagues.

For NIH, the proposed 20 percent cut will have far-reaching and negative implications for our nation’s research portfolio and decades of progress. With infectious disease research already underfunded, the suggested budget cuts to the NIH will impact researchers and their jobs in universities across the country, diminish U.S. scientific global leadership and drag down U.S. scientific advancement. Without adequate funding, researchers cannot identify treatments and vaccines to curb and end diseases that affect us all.

Regarding the CDC, a newly proposed Federal Emergency Response Fund within the agency to rapidly respond to public health outbreaks such as Zika virus is welcome news. However, programs like this don’t exist in a vacuum; to do the job, they need a robust public health network.
The power of advocacy

- March 2017 President proposes 22% ($7.5B) cut to NIH and elimination of the Fogarty International Center
- Sept 2017 Senate approves $2B increase to NIH

NY Times 9/11/17
Scientists as advocates

“Every public health decision is made on a political decision.”

~William Foege, MD, MPH
Presidential Medal of Freedom Recipient, 2012
Director, CDC, 1977-1983
Smallpox warrior
Notes on a Young Science

- Challenges in migration medicine
- **History of modern refugee protection**
- Dispelling myths about migrants
- Opportunities/successes in migration medicine
- Imagining our future in migration medicine – what should we work towards?
A constant dynamic in human history…
Migration by the numbers

International migrants: 244 M (3% of world population)

“Homo prospectus: we thrive on considering our prospects”
Tourist travelers

1996 – 563 million
2016 – 1.24 billion

Accessed 10.22.17
150 M of 232 M international migrants were migrant workers in 2013

www.ilo.org
Accessed 10.21.17
Global remittances

World Bank 2015:

• $582B
• $432B will flow to low and middle income countries
• >10% of GDP in 27 countries
• >20% in 10 countries

www.migrationpolicy.org
Accessed 10.21.17
What is different about migration now?

The numbers:
International migration has more than tripled since 1960, rising from 77 million to 244 million in 2015.

The speed:
Circumnavigating the globe in 1-2 days

Graphic credit: UN Social Development Network

Image by ho-yeol ryu
Migration is much more complex and dangerous

Within countries
Between countries
For work – legal or illegal
Forcibly- human trafficking
It is circular….the VFR traveler
And involves children – Alan Kurdi, one of one million in 2015

Photo credit: Nilüfer Demir, Bodrom, Turkey
• 33 year old man with 10 month history of crusted and ulcerated plaques on the left dorsal forearm and left leg

Photos courtesy of Dr Alexia Knapp
Where were you born, and where have you traveled?

In 8/2015, began journey to US
- Mogadishu, Somalia—>Nairobi, Kenya—>Sao Paulo, Brazil by air
- Sao Paulo, Brazil —> San Diego, CA, USA overland, passing through Peru, Ecuador, Columbia, Panama, Costa Rica, Nicaragua, Honduras, Guatemala, Mexico
- Travelled continuously x 3 months
- Rough and strenuous conditions
  - Slept outside in the jungle
  - Swam across swampy/muddy rivers
  - Many insect bites
  - Abrasions from plants
  - Lack of food and medical care

Pirre Mountain, Darien Gap
Photo Credits: Matthew Karsten
Status of endemicity of cutaneous leishmaniasis, worldwide, 2013

Number of new CL cases reported, 2013

- ≥5 000
- 1 000 – 4 999
- 100 – 999
- <100
- 0

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2015. All rights reserved

Countries reported imported CL cases
- Lebanon - 1033
- Jordan - 103
- Nepal - 28
- Iraq - 13
- Belgium - 12
- Kuwait - 11
- Germany - 10
- Qatar - 8
- Russian Federation - 5
- Armenia - 2
- Finland - 2
- Lithuania - 1
- Bangladesh - 1
- Italy - 1
- Czech Republic - 1

Data Source: World Health Organization
Map Production: Control of Neglected Tropical Diseases (NTD) World Health Organization
The patient disappeared after the first travel ban...is he in Canada?
We must develop a global compact for safe, orderly and regular migration.
Forced migration...staggering numbers

Source: www.unhcr.org.

Accessed 10/23/16
Syrian refugee crisis – one of the largest human displacements in history

Since civil war began in March 2011:

- 6.6 M internally displaced
- 4.8M refugees fled to Turkey, Lebanon, Jordan, Egypt and Iraq
- 1M requested asylum in Europe (Germany 300,000; Sweden 100,000)

http://syrianrefugees.eu/
Rohingya Muslim refugees fleeing Myanmar

700,000 and counting

A brief history lesson

Modern refugee protection movement is less than 100 years old
A brief history lesson

• Protection of refugees has occurred since antiquity
• International protection began with the League of Nations (1921-1946)

https://www.icrc.org/eng/assets/files/other/727_738_jaeger.pdf
A brief history lesson

• Convention on the International Status of Refugees - 1933
• First time the principle of non-refoulement acquired the status of international treaty law
A brief history lesson

- FDR and the Evian Resolution – 1938
- Help people fleeing the Third Reich from Germany and Austria
- First time protection was extended to would be refugees inside the country of potential departure
Refugees after World War II

- International Refugee Organization (IRO) 1946-1951
- Established by UN General Assembly to help resettle central European refugees to US, Canada, W Europe, Australia, Israel and Latin America

Photo: Wikimedia Commons: Passenger ship, possibly MS SKAUBRYN, berthed at a wharf (8400394605).jpg
A brief history lesson

• IRO was meant to complete its work by 30 June 1950

• “As soon became evident, it was unlikely – to say the least – that the problem of refugees would be solved by that date”

• UN commissioned “A Study of Statelessness”
A Study of Statelessness…. a key document in the modern history of refugee protection

- International travel
- Right of entry and sojourn
- Personal status
- Family rights
- Rights of exercise of trades or profession
- Education, relief, social security
- Exemption from reciprocity, expulsion, taxation and military service

Original photo uploaded by Fischerjs/Wikipedia
Modern protection of refugees

This study served as the main elements of the UN Convention Relating to the Status of Refugees, 1951
Who is a refugee?

Someone who “owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country.”

~1951 Refugee Convention establishing UNHCR
Refugees are different from other migrants…….

“Migrants, especially economic migrants, *choose to move* in order to improve the future prospects of themselves and their families. Refugees *have to move if they are to save their lives or preserve their freedom*. They have no protection from their own state - indeed it is often their own government that is threatening to persecute them. If other countries do not let them in, and do not help them once they are in, then they may be condemning them to death - or to an intolerable life in the shadows, without sustenance and without rights.”

www.unhcr.org/accessed12Nov21013
US history on migrants as a case study

- 1600’s…Americans fleeing persecution since the Pilgrims
- 1948 -250,000 displaced Europeans from WWII
- 1940’s-50’s – laws assisting those fleeing Communism (China, Hungary, Korea, Poland, Yugoslavia)
- 1960’s- fleeing Cuba
- 1980- US Refugee Act after Vietnam War
A nation of immigrants

• 0.9% Native American
• 99.1% immigrants and their descendants

Photo credit: https://www.flickr.com/photos/dominiquejames/4621961395/
Presidential request for refugee admissions: 70,000 refugees
Source: U.S. Department of Homeland Security

US Estimated Annual International Arrivals

- **Refugees**: 70 – 90,000
- **Immigrants**: >1,000,000
- **International Travelers**: Foreign 60M / U.S. 60M

Slide courtesy of Dr Martin Cetron, DGMQ, CDC
US Refugee Admissions

- 3.25 M between 1975-12/31/15
- 69,933 in 2015
- In 1980, after the Vietnam War, we admitted 207,116 refugees

Photo credit: http://refugeecamps.net/CV61.html

http://www.state.gov/j/ prm/releases/statistics/251288.htm
Notes on a Young Science

- Challenges in migration medicine
- History of modern refugee protection
- **Dispelling myths about migrants**
- Opportunities/successes in migration medicine
- Imagining our future in migration medicine – what should we work towards?
The importance of evidence based messages regarding refugees:

- Actual numbers and the historical perspective
- Economic impact
- Infectious disease risk
- Risk of terrorism
This is not a new problem: the numbers of displaced worldwide has been almost as high in the past

- WW2 - 40 million
- 1947 Partition of India and Pakistan: 14 million

Image: www.Syskool.com
The number of refugees has also been almost this high in the past

- 2015: 21.6 M
- 1992: 20.6 M (when the global population was 2/3 of it’s current number)

Nature Vol.543, 3/2/17 pg 22-23
Putting the request to the developed world to accept refugees in perspective

• Request by the UN to the developed world is to accept 1.2 million refugees/year…..

• Less than one percent of the world’s refugees are accepted for resettlement annually
US migrants….1 million per year, now – and in 1910
The US had more first generation immigrants from 1860-1920 than now

“The alleged increase in migration and forced displacement tells us more about the moral panic on migration than the reality”

~Nando Sigona, Social Scientist University of Birmingham, UK Nature, Vol 543, 3/2/17
The importance of evidence based messages regarding refugees: economic impact

- The net fiscal impact of refugees was positive over the 10-year period, 2005-2014, at $63 billion.
- “Refugees pay more in taxes than they consume, and fill jobs in service industries that others will not”

DHHS Report, completed July, 2017; never released
NY Times 9/18/17
The importance of evidence based messages regarding refugees: risk of terrorism

- Odds of fatal terror attack in U.S. by a refugee? 3.6 billion to 1
  
  Cato Institute 2016
  Terrorism and Immigration: A Risk Analysis
  Chris Nichols  PolitiFact 2/1/17

- Refugees are the most heavily vetted of any people who enter the United States, facing an 18-to 24-month processing period
The importance of evidence based messages regarding refugees: infectious disease risk

- Migrants represent only a very small fraction of international travelers entering the US
- i.e. 95% of US Zika cases were travel related*

Notes on a Young Science

- Challenges in migration medicine
- History of modern refugee protection
- Dispelling myths about migrants
- **Opportunities/successes in migration medicine**
- Imagining our future in migration medicine – what should we work towards?
CDC Enhanced Refugee Health Programs – enhanced detection and presumptive treatment

- Addressing healthcare needs of US bound refugees
- Presumptive pre-departure treatment for malaria, intestinal parasites, expanded TB and HIV diagnostic and treatment programs and immunizations
- Successful prevention of thousands of cases of intestinal parasitosis, malaria, vaccine preventable diseases and hundreds of cases of TB among US bound refugees.
- Significant cost savings

Effect of a Culture-Based Screening Algorithm on Tuberculosis Incidence in Immigrants and Refugees Bound for the United States

Yecai Liu, MS; Drew L. Posey, MD, MPH; Martin S. Cetron, MD; and John A. Painter, DVM, MS

Liu et al. Annals of Internal Medicine, 2015
Prevalence of intestinal parasites in Minnesota refugees: the impact of presumptive Albendazole

Figure 1. Prevalence of Intestinal Parasites among 26,956 Refugees Arriving in Minnesota, According to Status at Departure for the United States.

Changes practice
Multidrug-Resistant TB (MDR TB) Cases, Minnesota, 2011–2017
Data as of 8.24.2017

14 (82%) of 17 case-patients were Hmong
Measles outbreak in Minnesota, 2017

- 79 cases
- 90% of cases unvaccinated
- 81% of cases in Somali MN Community
- Median age: 2 years (range: 3 months-57 years)

Epidemic curve, March 30-July 19, 2017. Slide courtesy of MDH
Measles outbreak in Minnesota surpassed last year’s total for the entire country

A plummeting vaccination rate in Minnesota

The vaccination rate for measles, mumps and rubella began falling sharply a decade ago among children of Somali descent who live in Minnesota. That drop is now being blamed for a major measles outbreak within the Somali American community there.

Dr Andrew Wakefield

Source: Minnesota Department of Health

THE WASHINGTON POST
Every country accepting migrants will have some challenges along with benefits…
Tweet from astrophysicist Neil deGrasse Tyson Jan 2018

Not that anybody asked, but one-third (95 out of 289) of all American Nobel Prizes in the Sciences have been earned by Immigrants to the United States.
Opportunities/successes in refugee health?

• Strengthening upstream public health interventions
• Developing and updating guidelines
• Improving communications across the continuum of care from overseas to domestic providers
• Educating providers
• Conducting research on refugee health
• Implementing CDC Refugee Centers of Excellence
CDC Centers of Excellence in Refugee Health (2015-2020)

Surveillance/epidemiology of refugee populations
  • Building a data repository for refugee health data from post-arrival screens
  • Conducting clinical quality improvement evaluations on Hepatitis B, LTBI, and chronic conditions in pediatric patients

Guideline Development and Revisions
  • New Guidelines: Preventative Medicine, Women’s Health, Pediatrics
  • Revisions to Current CDC Guidelines: Mental Health, General, Hepatitis, Parasitics
**Goal:** Develop and disseminate an efficient and user-friendly interactive web-based application to facilitate the domestic refugee health screening.

**INPUT/SEARCH CRITERIA**

1. **Country of Departure/Host Country:**
   - (drop down, autofill)
2. **Nationality/Ethnicity:**
   - (drop down, autofill)
3. **Preferred Language:**
   - (drop down, autofill)

4. **Person 1: indicate initials**

5. **Age:**
   - (enter age in year if >1 yr, month if <1 yr) [option: enter DOB, year of birth]

6. **Gender:**
   - Female □
   - Male □
   - Transgender: Female to Male □
   - Male to Female □

**OUTPUT**

1. Health Alerts (outbreaks/follow-up recommendations)?
2. Health Profiles
3. **Core** Screening Components for everyone, regardless of gender and age
4. **Age/Gender/Country specific** recommendations
Refugee health care can be a model for best practices in migration medicine

- Safe, orderly, planned
- Upstream PH interventions
- Coordinated care
- Evidence based (and getting better)
- Prepared providers and health systems

“We must develop a global compact for safe, orderly and regular migration”
Notes on a Young Science

• Challenges in migration medicine
• History of modern refugee protection
• Dispelling myths about migrants
• Opportunities/successes in migration medicine
• Imagining our future in migration medicine – what should we work towards?
A world where we work for peaceful resolutions of international conflicts (so that we don’t have refugees…).
A world where we honor key principles of international refugee law.

Turkey’s Breach of the Principle of Non-Refoulement

April 6, 2016 by Ius Gentium | 4 Comments

Yasmine Akkad

Non-refoulement is a fundamental principle in international law that was first laid out in the UN Convention relating to the Status of Refugees in 1954.[i] Article 33(1) of the convention provides that: "no Contracting State shall expel or return ('refouler') a refugee in any manner whatsoever to the frontiers of territories where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion."[ii] Recently, Turkey breached this principle of non-refoulement by illegally returning thousands of Syrian refugees to war-torn Syria.[iii]

Photo Credit: University of Baltimore School of Law, April 6, 2016
A world where governments, IO’s and NGO’s are prepared for high volume, long term tragedies such as the Syrian conflict.
Imagining our future

A world where upstream PH interventions are supported, and occur before resettlement.

Slide courtesy of Dr Martin Cetron, Director, DGMQ, CDC
Imagining our future

A world where we have universal health care access

(Dr. Tedros, WHO’s Director General #1 goal)
A world which views refugee situations as the indescribable human tragedies which they are, and which responds with generosity and compassion.
“Refugees are not the danger – they are in danger”

~Pope Francis
Vatican City
May 28, 2016
Imagining Our Future

A world where leading governments respond by increasing refugee acceptance numbers

Refugees admitted to the US 1980-2017
www.migrationpolicy.org
Imagining Our Future/Connecting international and domestic refugee work

A world where transitions of care are seamless as refugees move from country of first asylum to resettlement countries

Photo credit: Doug Hulcher
A world where providers are trained in the body of knowledge which encompasses refugee and immigrant health
Knowledge which didn’t exist 35 years ago
A world where providers routinely ask “Where were you born, and where have you traveled?”… and know what to do with the answer.
Imagining Our Future/
Where patient outcomes are better

• “In the field of observation, chance favors only the mind which is prepared”
  ~Louis Pasteur

Maltreatment of Strongyloides: case series and worldwide survey of physicians in training
Boulware, Stauffer, Hendel-Paterson, Walker et al
AM J Med 2007
A world where we remember that migration is circular – and we routinely ask “are you planning to travel back home?” (the Visiting Friends and Relatives /VFR traveler)
A world where scientists are advocates

“I realized the academic community was this massive untapped resource. Advocacy has been a focus for us since our series on child survival in 2000 – and we’ve never looked back”

~Richard Horton
Editor, the Lancet
Dartmouth College
Global Health Conference
4/12/17
Core values in global health

- Cultural Humility
- Trust
- Respect
- Global Health Equity
- Compassion

“Give me your tired, your poor”…

Sept 2017…
Trump administration lowers the refugee quota to 45,000 – the lowest number since the Refugee Act of 1980.

Sept 2018…..
Quota lowered to 30,000.
What’s in a number?

A Historically Low Cap on Refugees
President Trump will lower the cap on refugees admitted to the United States to 45,000 for the 2018 fiscal year, down from the 110,000 cap set by President Barack Obama before he left office. Mr. Trump had previously ordered that the country admit no more than 50,000 refugees in 2017.

- A challenge to our identity as a nation
- A denial of our core values as human beings
The world is watching…will we remember Evian?

World War II

Vietnam

Syria

Photo Credit: Italian Navy/Massimo Sestini

Rohingya Sept 1, 2017

Photo credit: Anurup Titu
The future is in great hands…
optimism as a moral imperative
“Give me your energetic, your geniuses…”

As we commented in our editorial, “perhaps the Statue of Liberty inscription is outdated”

AJTMH 96(1),2017,pp.5-6

Charles Hossein Zenderoudi, Iran, 1962
Museum of Modern Art, NYC, October 2017
My final thoughts

- Migration medicine is a young science, and needs concentrated international focus
- International human rights law is ahead of migration medicine in terms of best practices – but both need a lot of attention
- We must answer fear and ignorance with scientific evidence…and core values
- Humanity (and global health security) are counting on our responses

“We must ask what is best for the world; we are dealing with closed systems”

~Dr Bill Foege
Thank you… Mahadsanid….. Galatome…. Krop khun mak, kha….. Gracias….. Au Khun… Amasegenale

Special thanks to…. My patients My family My colleagues