



Infectious Diseases Epidemiology and Applied Studies Initiative

IDEAS Seminar Series Fall 2023

Jeffrey D. Klausner, MD, MPH

Professor of Population and Public Health Sciences
Professor of Medicine and Infectious Diseases

Jennifer Unger, PhD

Professor of Population and Public Health Sciences

With Support from **Frank Gilliland, MD, PhD**

Professor of Population and Public Health Sciences



Through discovery, training and action, we are solving public health and health equity challenges, from local to global, for today and tomorrow.

Keck School of Medicine of **USC**
Department of Population and
Public Health Sciences

Our Previous Seminars 2022-2023

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

USC Institute on Inequalities in Global Health

The Infectious Disease Epidemiology and Applied Studies (I.D.E.A.S.)
Initiative and USC IIGH present:

**Pediatric Vaccine Hesitancy in the US &
Around the World**
Moderated by **Dr. Andrea Kim** from the
Los Angeles County Department of Public Health



James Conway
MD, FAAP
Professor of Pediatrics &
Director, Office of Global Health
UW School of Medicine and Public
Health (SMPH)



Andrea Kim
PhD, MPH
Director, Vaccine Preventable
Disease Control Program LADPH
& Adjunct Professor, DPPHS,
USC

November 9, 2023
12:00PM - 1:00PM PST
SSB 115 & ZOOM
[Register for Zoom link](#)



Keck School of Medicine of USC
Department of Population and
Public Health Sciences

USC Institute on Inequalities in Global Health

An event produced by The Infectious Disease Epidemiology and Applied
Studies (I.D.E.A.S.) Initiative and USC IIGH

**What can Public Health learn from Games
and TV shows like "The Last of Us"?**
Narrative Tropes, Climate Change & Fungal Disease



Tom Chiller MD, MPH
Chief of Mycotic Diseases Branch
Centers for Disease
Control and Prevention (CDC)



Marientina Gotsis MFA
Professor of Cinema Practice
Interactive Media & Games
USC School of Cinematic Arts

An interdisciplinary expert panel produced by junior scholars
of the USC Creative Media & Behavioral Health Center.

OCTOBER 3, 2023
1:30PM - 3:00PM PST
SSB 116 & ZOOM
[Register for Zoom link](#)



Keck School of Medicine of USC
Department of Population and
Public Health Sciences

NOVEMBER 30TH, 2022
12:30 PM - 1:30 PM PST
SSB 115/116 & ZOOM

The Global Infectious
Diseases Initiative
Presents:
**"IMPROVING ACCESS TO HIV PREVENTION AND TB
TREATMENT SERVICES IN SOUTH AFRICA" WITH:**
Andrew Medina-Marino, PhD
Adjunct Associate Professor at University of Pennsylvania
Honorary Associate Professor at University of Cape Town
Senior Investigator at Desmond Tutu Health Foundation

REGISTER FOR ZOOM MEETING

Lunch will be
provided

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

The Infectious Disease Epidemiology and Applied
Studies (I.D.E.A.S.) Initiative and USC IIGH present:
**A pill to prevent HIV
around the world**
*"HIV prevention implementation in Peru: A large scale PrEP demonstration
project in conjunction with the Peruvian Ministry of Health"*

with
**Professor
Kelika Konda,
PhD, MHS**

Clinical Associate Professor at University of Southern California

JANUARY 17TH, 2023
1:30PM - 2:30PM
SSB 114 & ZOOM
[Register for Zoom link](#)

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

The Infectious Disease Epidemiology and Applied
Studies (I.D.E.A.S.) Initiative and USC IIGH present:
The end of antibiotics
*"Evaluating antimicrobial resistance in Neisseria gonorrhoeae
among HIV PrEP users in Vietnam"*

with
**Paul
Adamson,
MD MPH**

Assistant Clinical Professor of Medicine at the University
of California, Los Angeles

FEBRUARY 28TH, 2023
1:00PM - 2:00PM
SSB 114 & ZOOM
[Register for Zoom link](#)

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

The Infectious Disease Epidemiology and Applied
Studies (I.D.E.A.S.) Initiative and USC IIGH present:
**Malaria: old and new approaches
toward control and elimination**

with
**Philip J.
Rosenthal, MD**

Professor of Medicine at the University of California, San Francisco
Associate Chief for Academic Affairs and Research in the Division of
HIV, Infectious Diseases, and Global Medicine at San Francisco General
Hospital.

MARCH 16TH, 2023
3:00PM - 4:00PM PST
via ZOOM
[Register for Zoom link](#)

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

The Infectious Disease Epidemiology and Applied
Studies (I.D.E.A.S.) Initiative and USC IIGH present:
**Groundbreaking Findings from STI and
HPV Cancer Screening During Pregnancy
in Bangladesh**

**Rokhana Karim,
PhD, MBBS**
Associate Professor
Department of Population and
Public Health Sciences

**AKM Fazlur Rahman,
PhD, MBBS, MPHil**
Executive Director
Center for Injury Prevention and
Research, Bangladesh

May 18TH, 2023
10:00AM - 11:00AM PST
SSB 301 & ZOOM
[Register for Zoom link](#)

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

The Infectious Disease Epidemiology and Applied
Studies (I.D.E.A.S.) Initiative and USC IIGH present:
**Cervical Cancer Control and
Prevention in India**

**Purnima
Madhivanan
MBBS, MPH,
PhD**

Associate Professor in Health Promotion Sciences
Mel & Enid College of Public Health at University of Arizona

September 11TH, 2023
12:00PM - 1:00PM PST
Hybrid Seminar
[Register for Zoom link](#)

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

USC Institute on Inequalities in Global Health

The Infectious Disease Epidemiology and Applied
Studies (I.D.E.A.S.) Initiative and USC IIGH present:
**Public Health Approach to
Elimination of Hepatitis C**
Experts weigh in from the LA County Department of Public
Health and the White House

**Prabhu Gounder,
MD**
Medical Epidemiologist
Los Angeles County
Department of Public Health

**Rachael L.
Fleurence, PhD, MSc**
Senior Advisor to Dr. Francis Collins
(Science Advisor to the President of
the United States)

April 10TH, 2023
12:00PM - 1:00PM PST
SSB 301 & ZOOM
[Register for Zoom link](#)



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challenges, from local to global, for today and tomorrow.

Keck School of Medicine of **USC**
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Our Last Fall Seminar 2023

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

USC Institute on Inequalities in Global Health

The Infectious Disease Epidemiology and Applied Studies (I.D.E.A.S.)
Initiative and USC IIGH present:

Refugee Health and Infectious Disease With an emphasis on STI Research in Refugees and Internally Displaced Populations



Ghina Mumtaz
PhD

Assistant Professor
Department of Epidemiology &
Population Health
American University of Beirut



Parveen Parmar
MD, MPH

Director, Social and Global
Emergency Medicine
Professor of Clinical Emergency
Medicine at USC Keck School of Medicine

December 6, 2023

12:30PM - 1:30PM PST

SSB 115 & ZOOM

[Register for Zoom link](#)



USC University of
Southern California

Happening Today!!!



Through discovery, training and action, we are solving public health and health equity challenges, from local to global, for today and tomorrow.

Keck School of Medicine of USC
Department of Population and
Public Health Sciences

See you in 2024 :)
Happy Holidays!!

IDEAS Team



Through discovery, training and action, we are solving public health and health equity challenges, from local to global, for today and tomorrow.

Keck School of Medicine of **USC**
Department of Population and
Public Health Sciences



RAPIDLY ADAPTED COMMUNITY HEALTH STRATEGIES TO PREVENT TREATMENT INTERRUPTION AND IMPROVE COVID-19 DETECTION FOR SYRIAN REFUGEES AND THE HOST POPULATION WITH HYPERTENSION AND DIABETES IN JORDAN

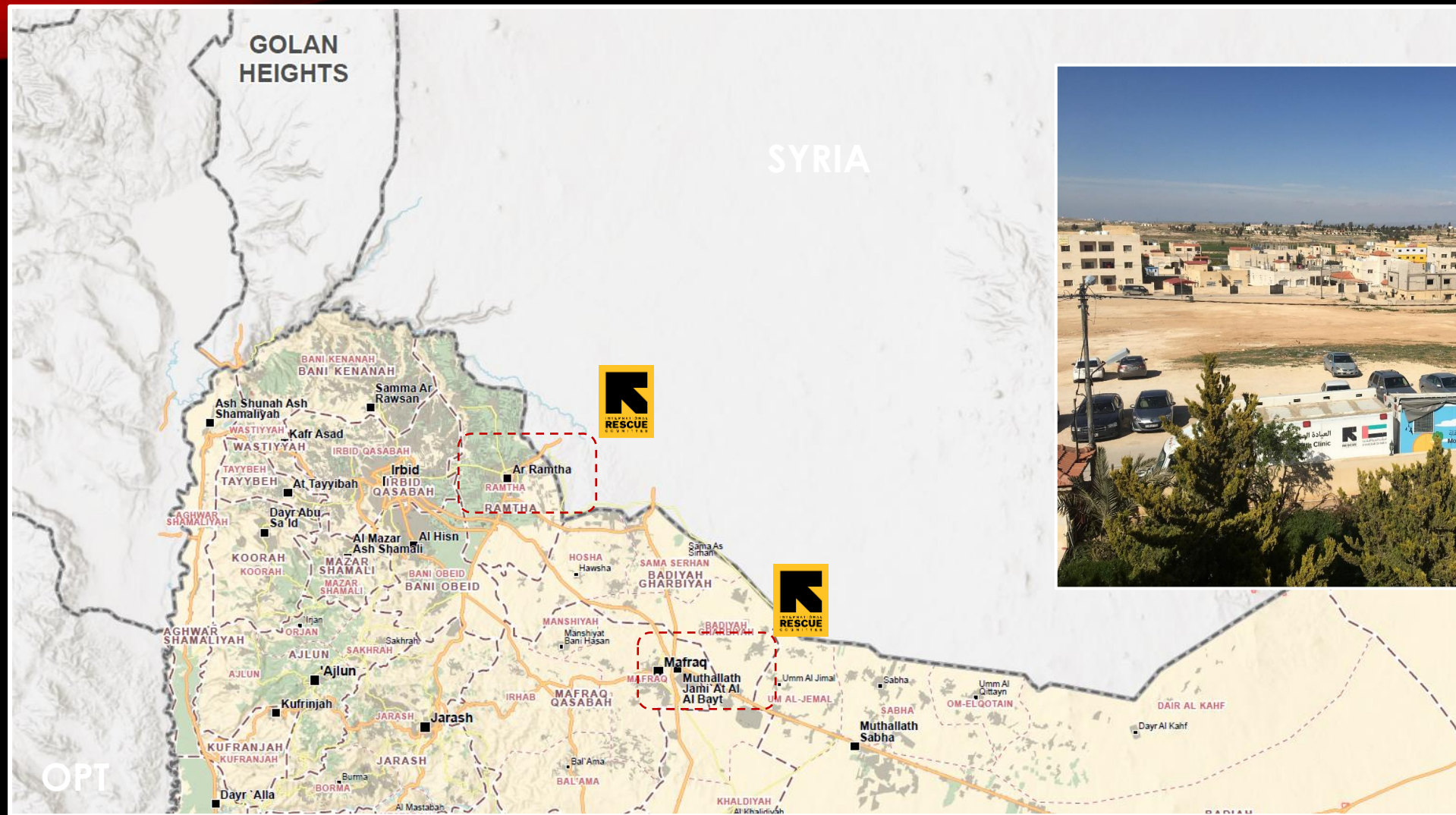
Ruwan Ratnayake, Fatma Rawashdeh, Raeda AbuAlRub, Nahla Al-Ali, Muhammad Fawad, Mohammad Bani Hani, Saleem Zoubi, Ravi Goyal, Khaldoun Al-Amire, Refqi Mahmoud, Rowaida AlMaaitah, Parveen Parmar

*thanks to Dr. Ratnayake for these slides

THE SETTING

- High burden of NCDs among Syrian refugees
 - 39.5% over 30 have hypertension
 - 19.3% have DM
 - 13.5% have both
 - Syrian refugees in Jordan with limited access to care
 - Variable access to MoH services
 - Patchwork of NGOs with limited capacity
 - A majority (over 80%) live in non-camp settings
- How can we support Syrian refugees with NCDs living in Jordan?

Ramtha and Mafraq cities, Northern Jordan/Syrian border



COMMUNITY HEALTH VOLUNTEERS

- Proven strategy to support health in other regions, including NCDs (Iran, India, etc.).
- Might this work in a humanitarian setting?
- Challenges:
 - Community health not routinely used in Jordan
 - Syrian refugees have limited ability to work/be paid

Developed an improved CHV program for Syrian patients with hypertension and/or diabetes in late 2019 (to evaluate with a stepped-wedge randomized trial)



Rapidly modified at the start of the COVID-19 pandemic for existing clinic cohorts:

- Monthly Rx/insulin delivery and call from CHV
- Monitoring of complications and referral
- COVID-19 surveillance



Direct feedback and clinic meetings

Clinic-based services (on hold)

Enrollment

Monthly



Nurses (IRC clinics)

Enroll by phone:
Establish status
Rx/insulin delivery

CHVs (+ supervisors)

Screen by phone:
Med stockout,
Complications
COVID-19 (household)
+ Self-management
+ Psychosocial support
+ Infection prevention
+ **Escalate urgent events**

Medication/insulin stockout

Acute complications

Psychosocial/mental health

Suspected COVID-19 in household

Pharmacy

Secondary Care

Psychological services

COVID testing

اعتني بصحتك..

في ظل الظروف الحالية لانتشار وباء كورونا، ينصح ببقاءك في المنزل وعدم الخروج والاختلاط إلا للضرورة القصوى.

UKAID ZAKAT RSCHE OCHA

اعتني بصحتك..

إذا شعرت بدوار وتعرق شديد، اتصل بالدفاع المدني لتجنب مخاطر انخفاض السكر في الدم.

UKAID ZAKAT RSCHE OCHA

اعتني بصحتك..

ابق نفسك معزولاً عن الأشخاص الذين يعانون من أعراض إنفلونزا (مثل الحرارة و السعال) وتجنب الاختلاط بهم.

UKAID ZAKAT RSCHE OCHA

اعتني بصحتك..

لتجنب مخاطر ارتفاع ضغط الدم حافظ على تناول أدويةك بانتظام و في موعدها المحدد.

UKAID ZAKAT RSCHE OCHA

اعتني بصحتك..

حافظ على تناول الطعام الصحي والالتزام بالأدوية في موعيدها لتجنب مضاعفات أمراض السكري و الضغط.

UKAID ZAKAT RSCHE OCHA

اعتني بصحتك..

إذا شعرت بألم حاد ومفاجيء بالصدر، اتصل مباشرة بالدفاع المدني لتجنب مخاطر الجلطات القلبية.

UKAID ZAKAT RSCHE OCHA



Preventative messaging

COVID-19 infection prevention

NCD danger signs

METHODS

- Rapidly modified into a cohort study, including all IRC clinic patients
- Measured the following monthly:
 - Medication stockouts
 - Patient reported adherence to medication (5-day and 30-day)
 - Acute complications of disease and referrals to care
 - COVID-19 suspected cases, refer to testing
- Qualitative analysis of program implementation

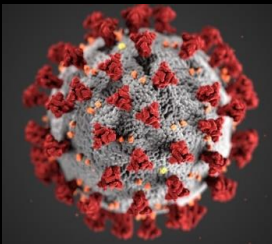
Results



N = 1124 clinic patients consented to be followed by CHV
89% Syrian, 63% Female, 68% 41—65y
38% (hypertension), 9% (diabetes), 54% (both conditions)
13% required insulin

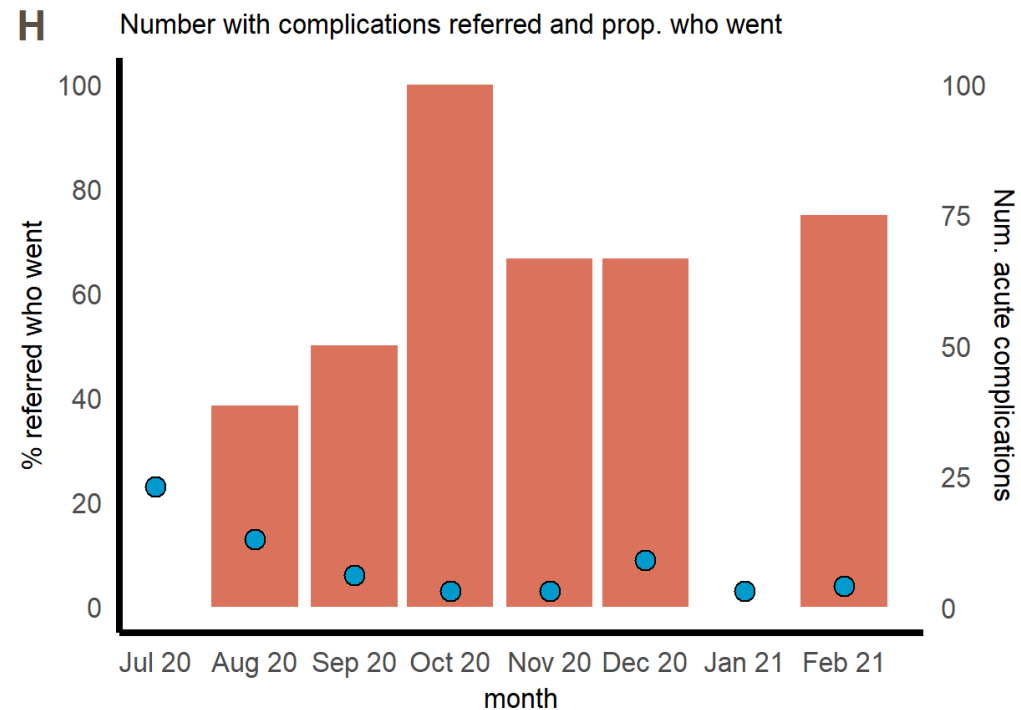


By end of study: 97% alive, 23 drop-outs, 14 deaths
Proportion with disease controlled did not worsen after program



Incidence of COVID-19 suspect cases detected: 2.3/1,000 pop.
>50% patients referred tested positive by PCR

Mixed picture on referrals for emergent complications



“[A] hypertensive, disabled patient was **screened by the CHVs for complications and referred to me**. I referred her to the emergency department...

She stayed in the hospital one day.....**she needed admission, but no one agreed to cover the cost.**

...**she left against medical advice**. It is challenging that **there are no free places for refugees to seek care when referred**”

[Clinician]

Ruwan Ratnayake, IRC

Disease control did not worsen

Disease control measure	n (%) (before clinic closure)	n (%) (after clinic re-opening)	Predictors of poor control
SBP <140 mmHg			
Hypertension (N=360)	200 (55.6)	224 (62.2)*	41—65y (mid-age) Has both conditions No baseline control
Both conditions (N=474)	262 (55.3)	250 (52.7)*	
RBS < 200 mg/dL			
Diabetes (N=42)	11 (26.2)	13 (31.0)*	Mafraq clinic No baseline control
Both conditions (N=293)	140 (47.8)	148 (50.5)*	

CONCLUSIONS

- CHV intervention supported Syrian refugees during COVID-19, maintaining levels of disease control and access to medications, referrals to services, etc.
- Limited resources for referrals
- Limitations: short study (8 months), limited understanding of impact
- Stay tuned—ongoing study in Karen State, Myanmar

ACKNOWLEDGMENTS

THANKS TO RUWAN FOR THESE SLIDES (AND THIS ONE!)

CHVS, SUPERVISORS, AND PROGRAM AND CLINIC STAFF FOR PIVOTING AND DILIGENTLY SUPPORTING THE STRATEGY DURING A DIFFICULT AND UNCERTAIN TIME

MARIA BYOMA
ADD VALUE CREATORS DESIGN HUB
KAMPALA

R2HC PROGRAMME

THIS PROJECT IS FUNDED BY THE ELRHA'S RESEARCH FOR HEALTH IN HUMANITARIAN CRISES (R2HC) PROGRAM (ACCOUNTABLE GRANT NUMBER 28368), WHICH AIMS TO IMPROVE HEALTH OUTCOMES BY STRENGTHENING THE EVIDENCE BASE FOR PUBLIC HEALTH INTERVENTIONS IN HUMANITARIAN CRISES. R2HC IS FUNDED BY THE UK FOREIGN, COMMONWEALTH, AND DEVELOPMENT OFFICE



Research for health
in humanitarian crises | elrha



NIHR | National Institute
for Health Research

iada | International Alliance
for Diabetes Action