



REVERSE INNOVATION IN HEALTHCARE: SDGs BRING GLOBAL HEALTH TO DETROIT

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THE GLOBAL HEALTH INITIATIVE



OVERVIEW

- Global to Local in a Health System
 - Community engagement: SDG workshop
 - Community-identified issue: Water shutoffs
 - Global parallels: Nepal water access
- Structure for Learning: Reverse Innovation Fellow
- Reverse Innovation Program
 - Our Values
 - Definition: In healthcare, Reverse Innovations are innovations adopted first in poor (developing) countries before being adopted in advanced economies.



UN SDGs IN DETROIT

- Explore the creative application of the United Nations Sustainable Development Goals (SDGs) relating public health to the social challenges facing the City of Detroit
- One-day Workshop
- 55 attendees
- 4 Breakout Workgroups
 - Hunger and Food Security (SDG 2)
 - Health and Wellbeing for All (SDG 3)
 - Sustainable Water and Sanitation (SDG 6)
 - Urban Development and Safety (SDG 11)



UN SDGs FINDINGS

- Weak, un-prioritized existing infrastructure
 - *Detroit must (re)build and reclaim a robust public health infrastructure*
- Detroit too often portrayed as vulnerable, powerless
 - *Take pride in resilience and history of organizing*
- Stressed by racialized post-industrialization
 - *Translocalism: Detroit can learn lessons from other cities around the world and vice versa*
- Main Issue: Water Shutoffs





DETROIT WATER SHUTOFFS

- City of Detroit imposed shutoffs in 2014¹
 - April '14 - \$5.6 million contract with Homrich
- Between Jan 1, 2015 - Feb 12, 2016: 15,086 shutoffs for nonpayment²
- GHI & WtP¹ found:
 - Families displaced (EPA says 2.5% income-to-water bill max; Detroit >10%)
 - Neighborhoods destabilized (Northwest, Northeast sides heavily affected)
 - Water bill debt → Tax foreclosures
 - Those who were diagnosed with a water shutoff-associated illness were **1.42 times more likely** to live on a block that has experienced a water shutoff. [$X^2(2)=80.495$, $P<.001$]
 - Those patients who came from blocks that were shut off were **1.55 times more likely** to be diagnosed with a water shutoff-associated illness. [$X^2(2)=66.013$, $P<.001$]

¹Mapping the Water Crisis: The Dismantling of African-American Neighborhoods, 2016, *We the People of Detroit Community Research Collective*

² Detroit Water and Sewerage Department, Shutoffs for Nonpayment, February 12, 2016

NEPAL WATER ACCESS

- Clean water access: ~40% of Kathmandu's population
 - 150 tons of daily waste; half dumped into fresh water sources (e.g. river)
- Sanitation: ~27% of Nepalese population
 - 44k child deaths per year – waterborne illness
- Development Aid Paradigm
 - Privatization of water infrastructure
 - Tourism → Private wells
- Deep Inequity
- Innovative Solutions





REVERSE INNOVATION FELLOW MODEL

- MPH graduate student from University of Michigan
 - Cultural competence
 - Understanding of Detroit's challenges
 - Passion for reciprocity & reverse innovation
- Identify Water Access & Policy Strategies
 - 3 months with Detroit partners
 - Shutoffs
 - Policies
 - 3 months with Nepal partners
 - Access
 - Infrastructure
- Deliverable: White paper, strategy documents, policy briefs



CONCLUSION

- Reciprocity. Humility. Iteration.
- Still identifying how to situate a healthcare system...
- Reverse Innovation Program
 - Vision: Our vision is of a healthy and thriving Detroit inspired by global ideas and innovations.
 - Mission: GHIRI brings promising innovations from abroad to Detroit that address systemic health inequities.
 - Approach: Identify. Adapt. Implement. Scale. Disrupt.