Climate-related migration, Pacific Island countries and health

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Climate Change and Population Health Impacts

- **Environmental Degradation**
  - Forced migration, civil conflict, mental health impacts, loss of jobs and income

- **Extreme Heat**
  - Heat-related illness and death, cardiovascular failure

- **Severe Weather**
  - Injuries, fatalities, loss of homes, mental health impacts

- **Water & Food Supply Impacts**
  - Malnutrition, diarrheal disease

- **Degraded Living Conditions & Social Inequities**
  - Exacerbation of existing social and health inequities and vulnerabilities

- **Changes In Vector Ecology**
  - Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, West Nile virus

- **Air Pollution & Increasing Allergens**
  - Asthma, cardiovascular disease, respiratory allergies

- **Water Quality Impacts**
  - Cholera, cryptosporidiosis, Campylobacter, leptospirosis, harmful algal blooms

Adapted from CDC, J. Patz
Interpret with caution . . . . .
THE DRIVERS OF MIGRATION

Many factors influence whether a person or family will migrate. Their effects are closely intertwined, so it makes little sense to consider any of them in isolation.

**Social Drivers**
- Education, family/kin

**Environmental Drivers**
- Exposure to hazard, ecosystem services such as land productivity, habitability, food/energy/water security

**Political Drivers**
- Discrimination/persecution, governance/freedom, conflict/insecurity, policy incentives, direct coercion

**Personal/Household Characteristics**
- Age, sex, education, wealth, marital status, preferences, ethnicity, religion, language

**Economic Drivers**
- Employment opportunities, income/wages/well-being, producer prices (such as in agriculture), consumer prices

**Demographic Drivers**
- Population size/density, population structure, disease prevalence

**The Influence of Environmental Change on Drivers**

**Intervening Obstacles and Facilitators**
- Political/legal framework, cost of moving, social networks, diasporic links, recruitment agencies, technology

**Decision**

**Migrate**

**Stay**
Human experience of climate change

CLIMATE
Natural climate variability
Anthropogenic climate change

BROADER CONTEXT
Socioeconomic, political, demographic context
Adaptation; Mitigation

Exposure

Climate change impacts
Vulnerability

HUMAN MOBILITY
Relocation  Migration  Displacement

Health issues: e.g. psychosocial health, infectious disease risk, food security, water/sanitation, access to health services
How many will move?
The ten largest disaster displacement events of 2016

Source: IDMC, with UN Population Division data
Forced displacement and overcrowding leads to increased potential for communicable disease:

• acute respiratory infections
• vaccine-preventable disease
• diarrhoeal disease
• hepatitis A and E
• meningococcal disease
• disrupted STI/HIV prevention

Cyclone Pam, Vanuatu
2. CLIMATE-RELATED MIGRATION AND HEALTH
(migration and climate-related health challenges)

3. CLIMATE-RELATED RELOCATION AND HEALTH IN PICs

Global mean sea level rise

Mean over 2081–2100

Karoko, Fiji
Nuatambu, Solomon Islands: 133 people relocated, 54 remain
“Red Zone”: Narikoso vulnerability map, Fiji
(Source: Mineral Resources Division 2013)
Vunidogoloa relocation in Fiji
Migration, health and climate justice

Coastal erosion in Australia

Coastal erosion in Fiji
Diverse types of climate-related migration

1. DISPLACEMENT

Extreme weather events
- Cyclones
- Floods

2. MIGRATION

Loss of ecosystem
- Drought
- Altered food and water availability

3. RELOCATION

Sea level rise:
- Rising average sea level
- Salt water intrusion in aquifers