Equity-driven Evaluation and Knowledge Translation in Community-based Decision-making for Health

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Overview

- Introduction
  - Social Determinants of Health & Equity
  - Participatory & Community-based processes
  - Knowledge Translation
  - Northern BC windows
- Stakeholders & Social Network
- Social Dynamics
- Participatory Evaluation Tool
- The Machala Model for Knowledge Translation
- Conclusions

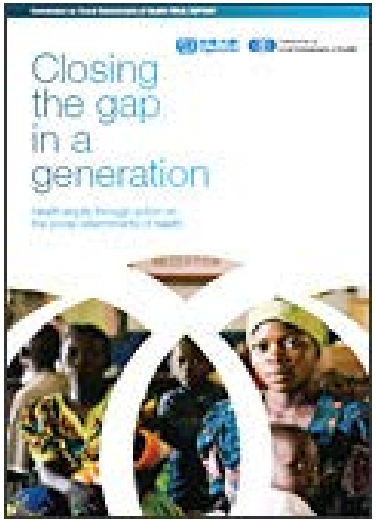
Social Determinants of Health

- **Wider definition of health**
  - Ecological, Biological, Social, Political, Cultural
  - EcoHealth, OneHealth, Eco-Bio-Social

- **Determinants: forces & dynamics**

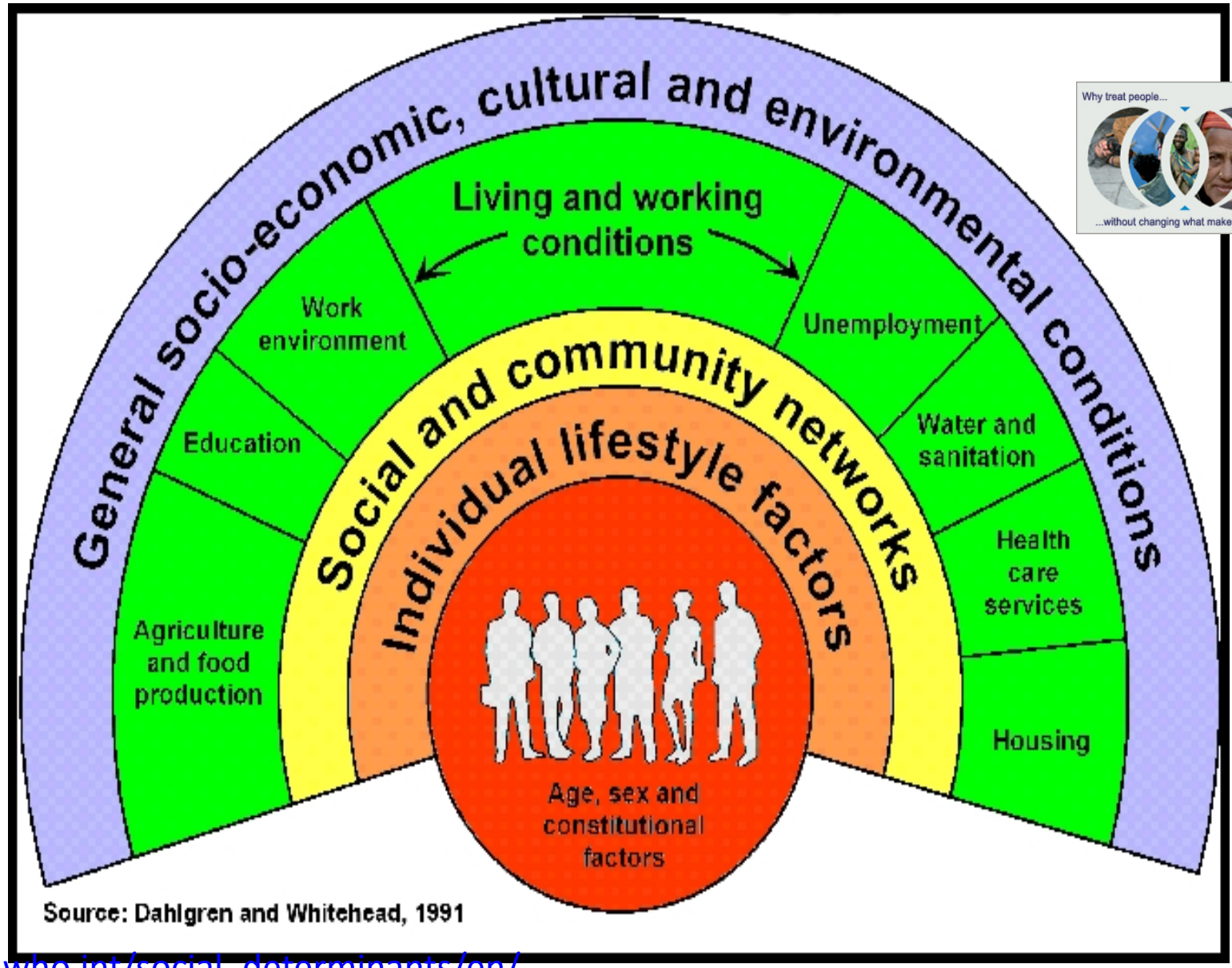
  Inequitable distribution of resources, health, security, and services

- **Equity = Justice**



WHO Commission (2008)

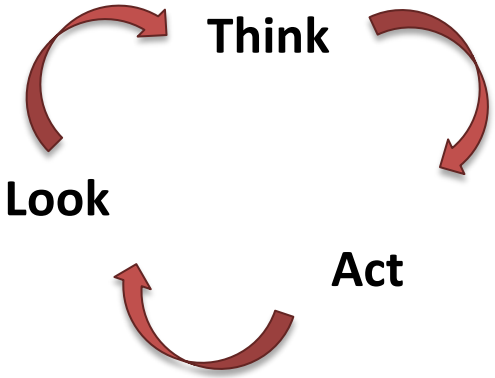
Social Determinants of Health



http://www.who.int/social_determinants/en/

Participatory & Community-based Processes

- Equitable participation of stakeholder groups
  - Complex issues require multi-faceted vision
- Power-sharing
  - Marginalized groups
  - "vulnerable" populations



- Equitable community participation throughout the life of the work (PAR, CBAR)
- Trans-, multi-, interdisciplinary

Knowledge Translation

- Intersectoral collaboration
  - Who? What? How?

PUBLIC HEALTH AGENCY of CANADA
AGENCE DE SANTÉ PUBLIQUE du CANADA

Crossing Sectors (2007)

- KT as outlined by CIHR:
  - dynamic, iterative, ethically-sound
  - Synthesis
  - Dissemination
  - Exchange
  - Application

CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

Graham et al. (2006)
KT Primer (2007)

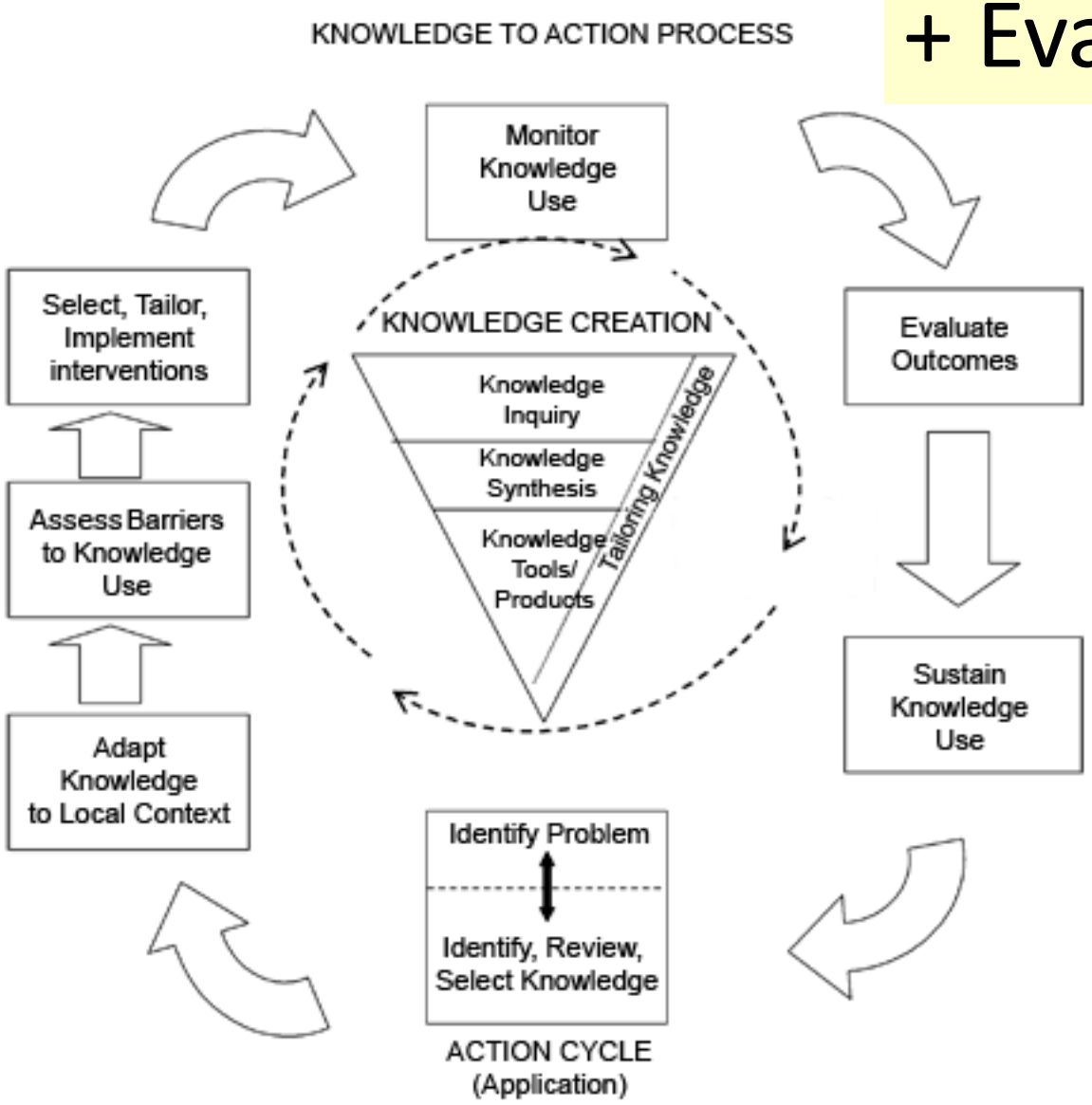
- Calls for a greater emphasis on Equity in KT and Knowledge-to-Action processes

National Collaborating Centre for Determinants of Health
Centre de collaboration nationale des déterminants de la santé

Davison & NCCDH (2013)

Knowledge Translation

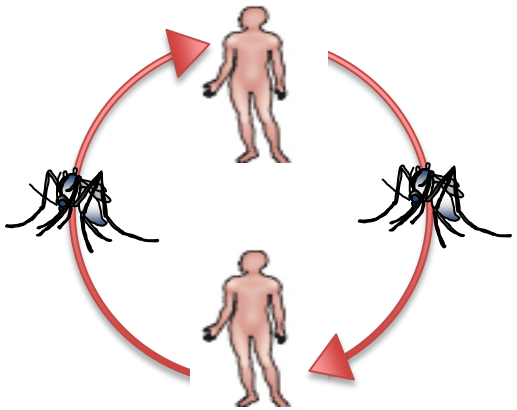
+ Evaluation

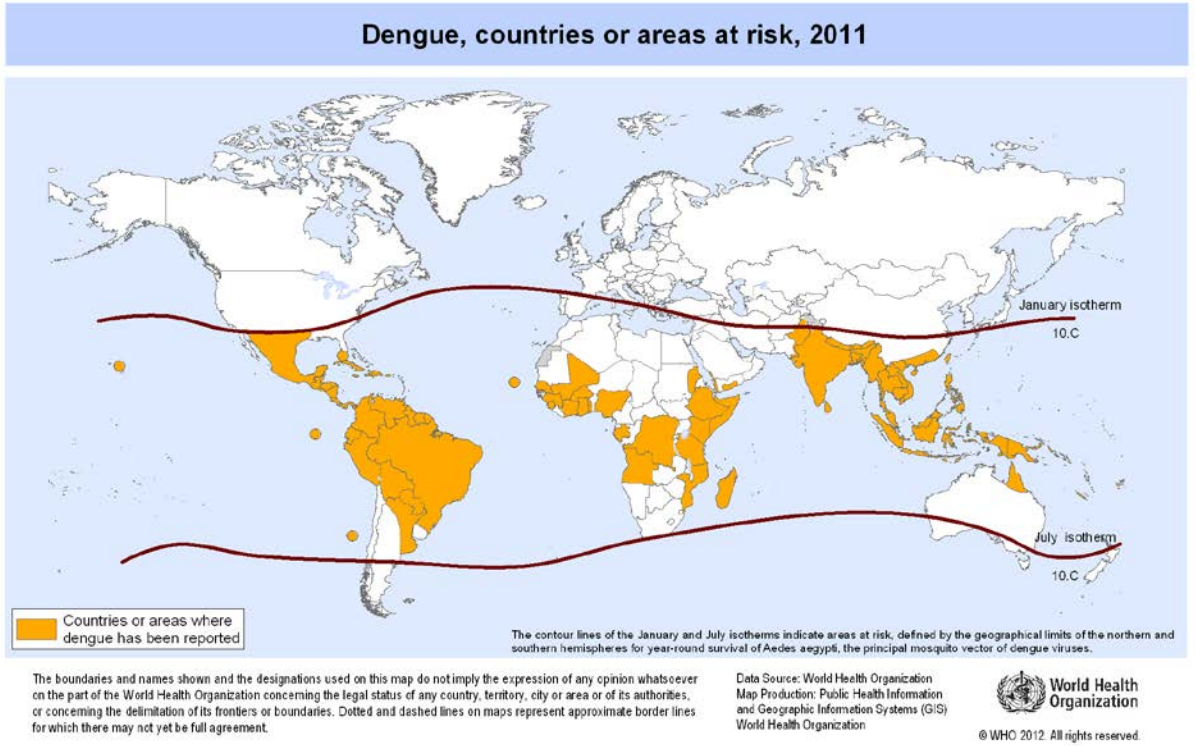


Graham 2006

Setting the scene: Dengue fever

- Mosquito-borne viral disease



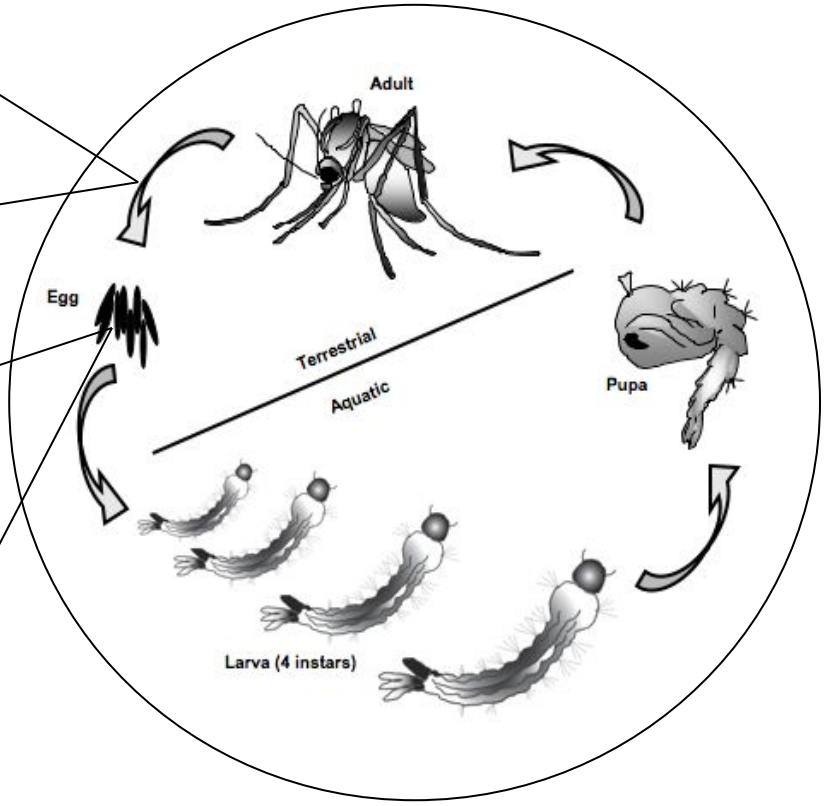


Social-Ecological Interface: Dengue

- Mosquito lives in and around homes
- Poor infrastructure
- Disease of poverty & Neglected Disease

Bloodfeeding

Oviposition



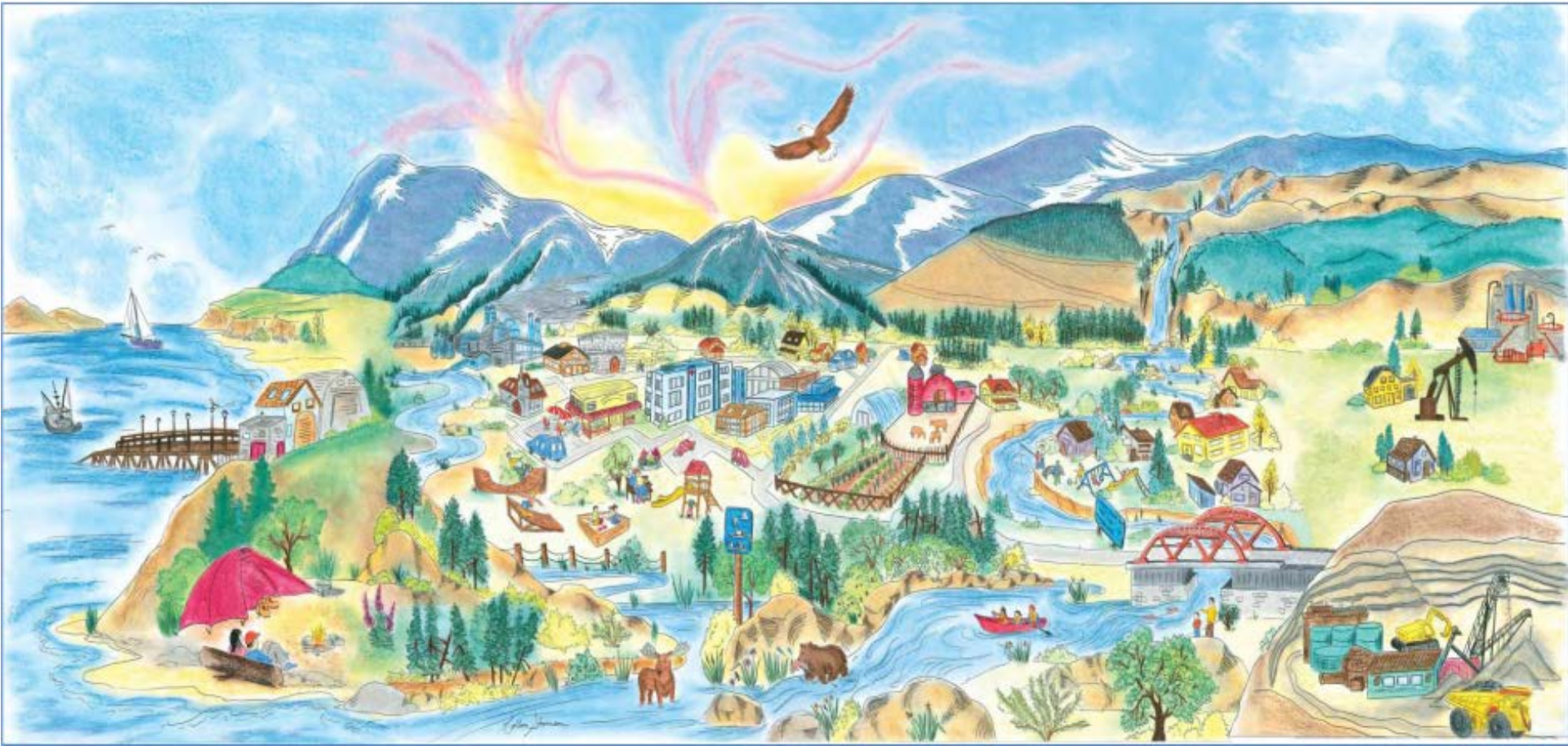
Northern BC window

- Environmental determinants of health
- Social-ecological systems and influence on health

"Position on the Environment as a Context for Health: an Integrated Settings Approach"

- Resource extraction, watershed management, natural resource stewardship
- Human health, community health, animal health, ecosystem health

"Position on the Environment as a Context for Health: an Integrated Settings Approach"



"Ecohealth & Watersheds in Northern BC"

Knowledge to Action Project

Improving Social and Environmental Determinants of Health through Integrated Water Governance

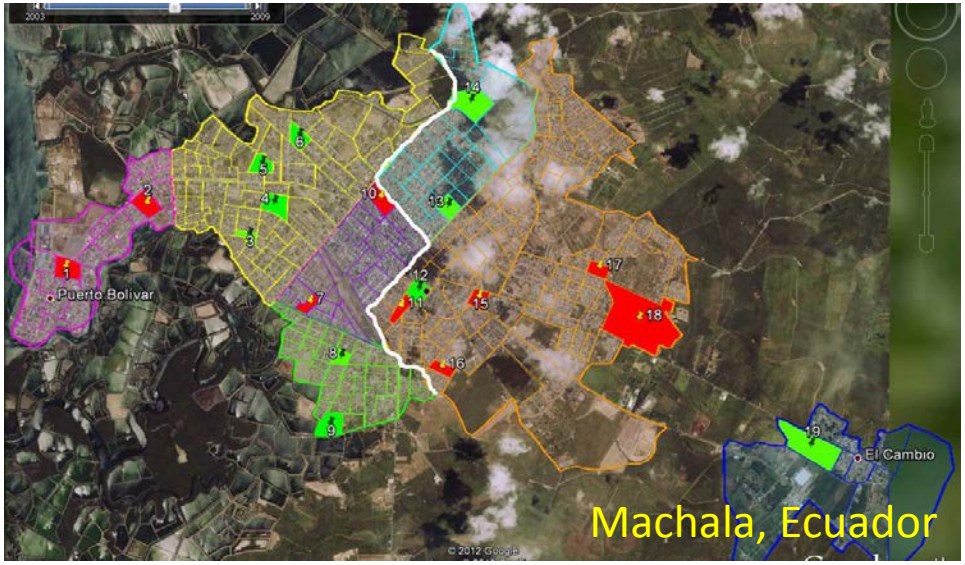
northern health

the northern way of caring

UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Dengue in Machala

- Pop 250 000
- Patchy provision of basic services and infrastructure
- High vector indices
- Perpetual risk of epidemic transmission of dengue virus



Vertical vs. Participatory Prevention

"Eco-Bio-Social Approach"

TDR For research on diseases of poverty
UNICEF • UNDP • World Bank • WHO
IDRC CRDI

Control

- 1 home visit per year by vector control staff
- Neighbourhood spraying (truck-mounted)
- In-home spraying (backpack sprayer)
- Temephos larvicide

*Reactive program

Intervention

- Clean Patio & Safe Water Storage Program
- Dengue Camp School Program
- Temephos or Biolarvicide

*Participatory Prevention

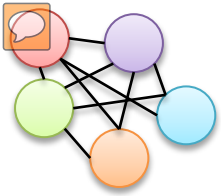
Questions

How do current knowledge management strategies limit equitable participation and where are there opportunities to change?

a) **Who are the stakeholders involved in and affected by** participatory dengue prevention and control programs in Machala **and how do they interact** within that context?

b) **How do the interactions between stakeholder groups and the perceptions they have of one another affect** evaluation, knowledge translation and research-to-policy processes?

c) **Are new tools, strategies and models required** to support more equitable evaluation and knowledge translation processes? If so, what do they look like?



Community

Community participants and residents:

- ***as the source of knowledge and experiential understanding of*** how and why health, security and the absence of either or both exist and persist in communities
- ***as the holders of*** narrative, culture and story that shape conceptions of health
- ***as the recipients or audience of*** KT cycles, health and sanitary education, and recipients of services

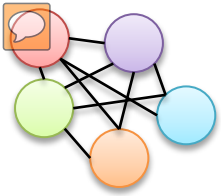
Local Government

Neighbourhood Councils and Presidents:

- ***gatekeepers for access*** to the community in terms of service provision, epidemiological surveillance and monitoring, social mobilization and community health programming
- ***negotiators and liaisons*** between neighbourhood residents and Provincial Ministries and the Municipal Government

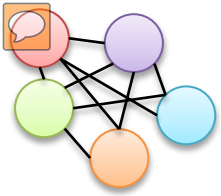
Front-line workers

- ***the face of government programs and services***, allies who care for communities and their health, and who provide an interface or access point to communication with the government in terms of voicing experiences and receiving official information
- ***basic tool for service delivery*** and data collection
- ***a valuable pool of human resources*** upon which the success of programs deeply depends



Government Administrator

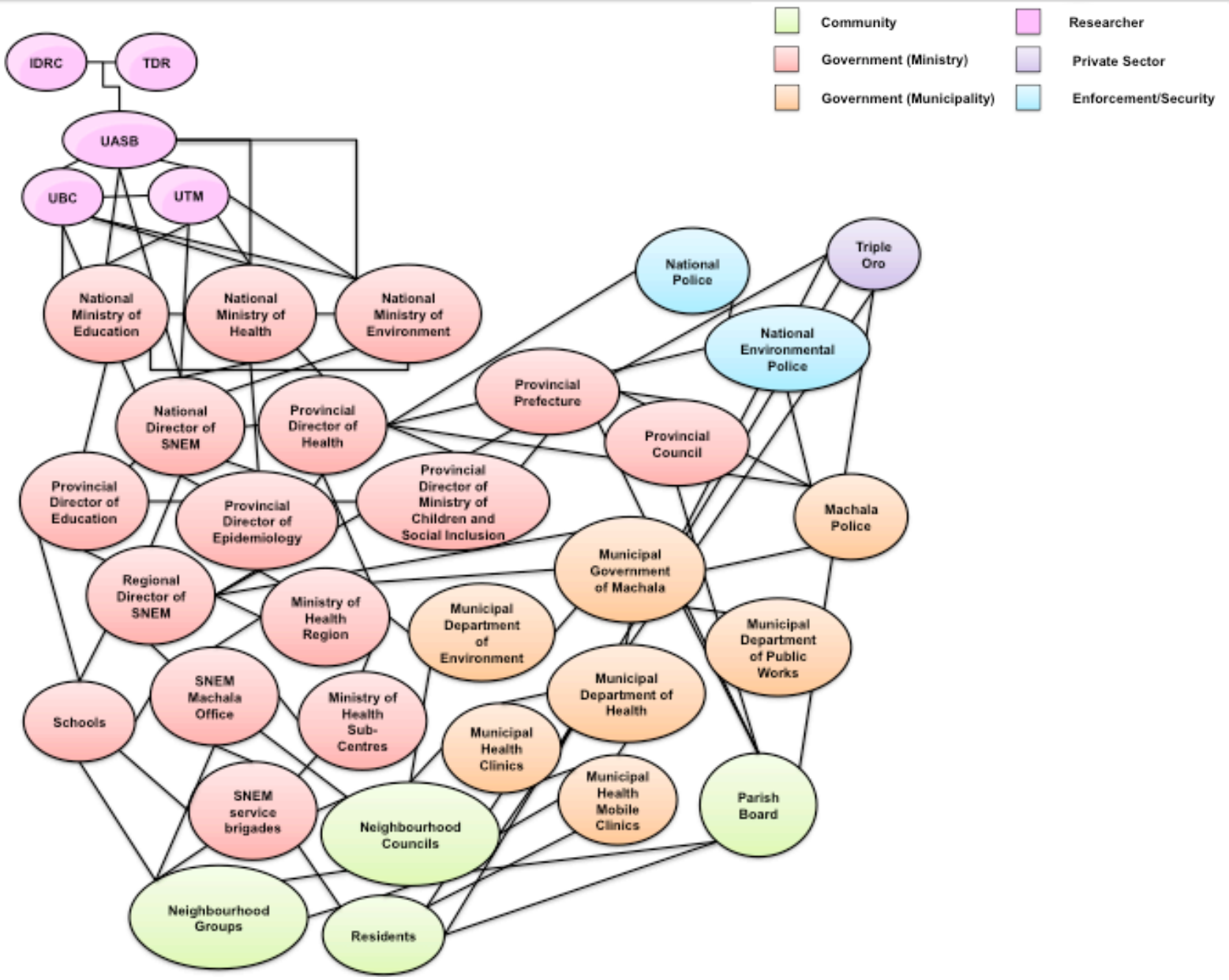
- ***leaders with political vision*** for the benefit of citizens who are taking steps, to the best of their ability under current political and economic restrictions, to work practically to make positive changes in the lives of the people
- ***out-of-touch bureaucrats*** who have lost the ability to understand the reality of life in Machala
- ***governors of the most reliable channels*** through which to affect social and political change



Researchers

- ***outside experts*** with an objective point of view
- ***intermediaries*** between dissonant stakeholder groups, as well as facilitators of intersectoral collaboration and construction of intersectoral spaces
- ***relatively unbiased bodies*** available and able to improve evaluation and follow-up activities, and create or increase local capacity to sustain these improved activities

Social Network Analysis



Social Dynamics

- Dengue as a priority among many
  - Lack of water, roads, sewers and policing
  - Hypertension, diabetes
  - Tuberculosis
  - Influenza, pneumonia, rubella, measles
  - Violence, sexual abuse, addiction, sex & drug trade

Social Dynamics

- Paternalism / equitable participation
  - Paternalistic programming
  - Disempowering messaging
  - Needs not met

"Often we call on the communities only to inform them of what we will do, but not to share the results." – Government Administrator Key Informant Interview

"This is the difficulty, then. I mean, we can't reach our goals because we are at the bottom and the authorities are at the top." –Community resident focus group

Social Dynamics

- ***Quemeimportismo* / Social resentment**
  - Fixed perception that community is apathetic, uneducated or "lacking correct motivation"
  - Communities express dissatisfaction with paternalistic programming through non-participation

"I mean, the top authorities never go out into the places affected [by their decisions] to ask questions, to give educational talks, hold meetings to learn about the issues, the epidemics that exist in the communities." –Community Resident Focus Group

Northern BC window

- Changing landscapes of health authorities in the face of persistent and complex lived health inequities by aboriginal peoples in BC, across Canada, and globally
- First Nations Health Authority
- VP Aboriginal Health, Northern Health

First Nations Health Authority
Health through wellness

northern health
the northern way of caring

Changing knowledge valuation systems, and finding ways of equitably incorporating diverse knowledges for processes of growth, transformation and extension of services

Northern BC window

- Established and growing successes
  - Central Interior Native Health Society
  - Nak'azdli Health Centre
  - Prince George Native Friendship Centre
  - Positive Living North
  - Health Arts Research Centre

- A diversity and multiplicity of success with deep commitment to rootedness with community

Participatory Evaluation Tool

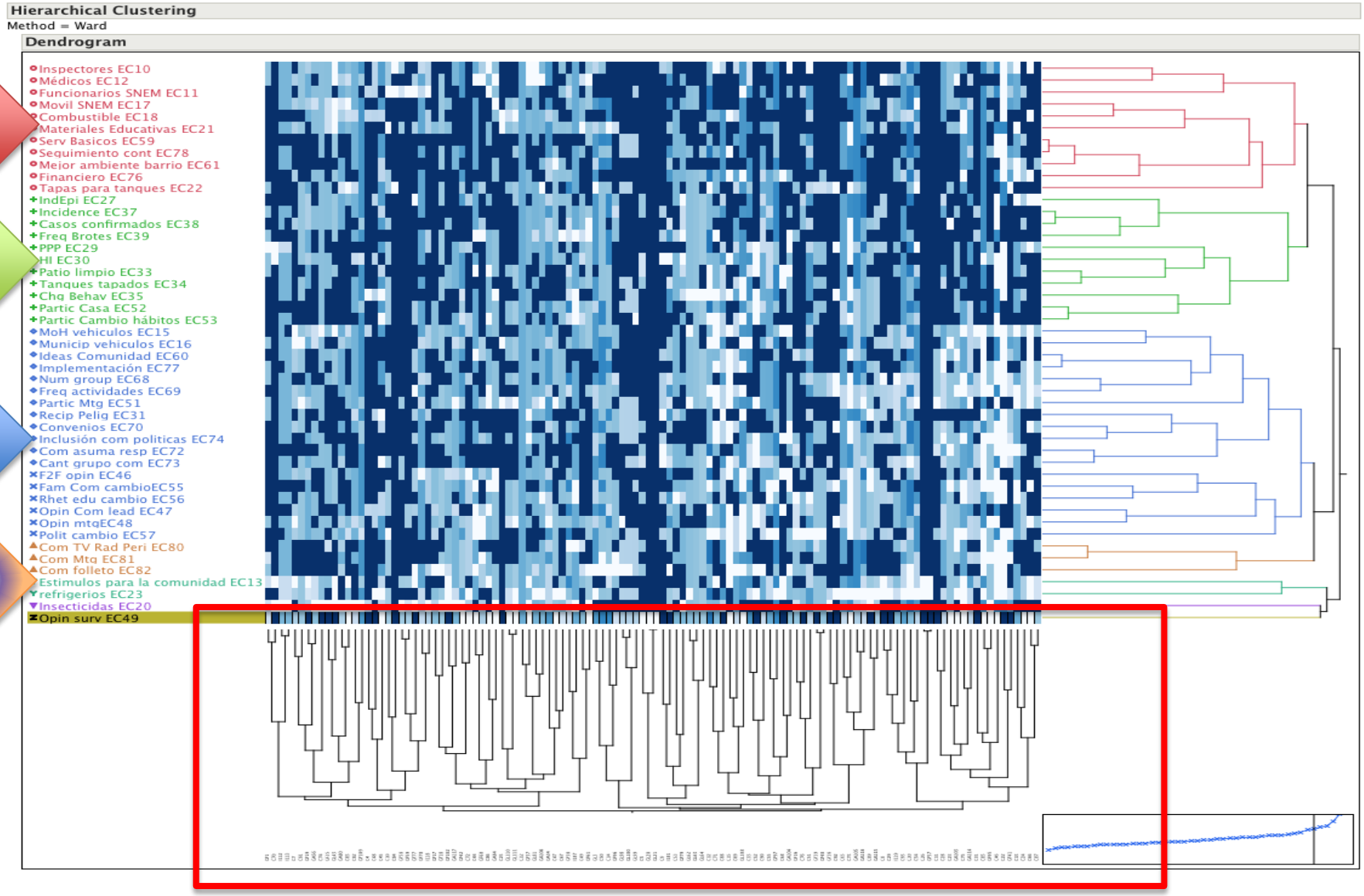
Participatory Indicator Development and Evaluation Matrix		
Evaluation Aspect	**Primary criteria grouping**	**Secondary criteria grouping**
Cost	Human Resources	Health inspectors/promoters
		Vector control personnel
		Doctors and Nurses
	Transport	Ministry of Health trucks and drivers
		Heavy transport trucks and drivers for community clean-ups
		Vector control transport
		Gasoline
	Supplies	Insecticides
		Education materials
		Tank covers
Efficacy	Vector incides	Pupas per person
		% of houses positive for vectors (house index)
		Typing of productive containers
	Community participation	% of patios clean and organized
		% of covered tanks
		Changes in healthy behaviours
	Epidemiological indices	Dengue incidence
		Number of people treated
		Frequency and magnitude of outbreaks and epidemics
Acceptability	Stakeholder opinions	Asking people's opinions one-on-one at people's homes or workplaces
		Communication through recognized leaders
		Meetings
		Short surveys
	Participation	Meeting attendance
		Program activities within the home
		Changes in healthy behaviours
	Integration of program concepts into activities and norms	Family and community-level activities incorporate program concepts
		Rhetoric, language and educational activities incorporate program concepts
		Political will incorporates program concepts
	Human and community well-being	Having adequate provision of basic infrastructure and sanitary services
		Having community ideas and opinions considered and applied in program decision-making processes
		Improvement of the community environment, both built and natural
Sustainability	Intersectoral coordination	Number of participating stakeholder groups
		Frequency of meetings, events and collaborative activities between groups
		Official agreements to collaborate
	Community empowerment	Degree of program ownership within the community
		Number of new/active community groups involved in program activities
		Degree of community inclusion in decision-making processes related to program development, evaluation and implementation
	Program institutionalization	Dedicated financial resources
		Implementation of recommended strategies
		Constant follow-up and evaluation of program activities and outcomes
	Communication of results	Communication via TV, radio and newspapers
		Communication via meetings and presentations
		Communication via flyers and pamphlets

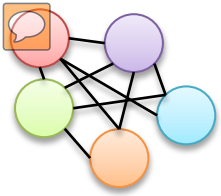
- 4 Gross categories
  - Cost
  - Efficacy
  - Acceptability
  - Sustainability

- Using interview, focus group and meeting data:
  - 14 sub categories
  - 48 criteria

- Community-driven

Hierarchical Indicator Clustering





Evaluation Categories

Operational sustainability:

- Original cost and sustainability categories
- Pertain to the infrastructure required to sustain the function of a participatory dengue prevention and control program
- Human resources; policy, operational and basic services infrastructure.

Effectiveness:

- Original assigned to efficacy and acceptability categories
- pertain to entomological and epidemiological risk reduction through positive behaviour change at the household and community levels.

Evaluation Categories

Resilience & Responsiveness:

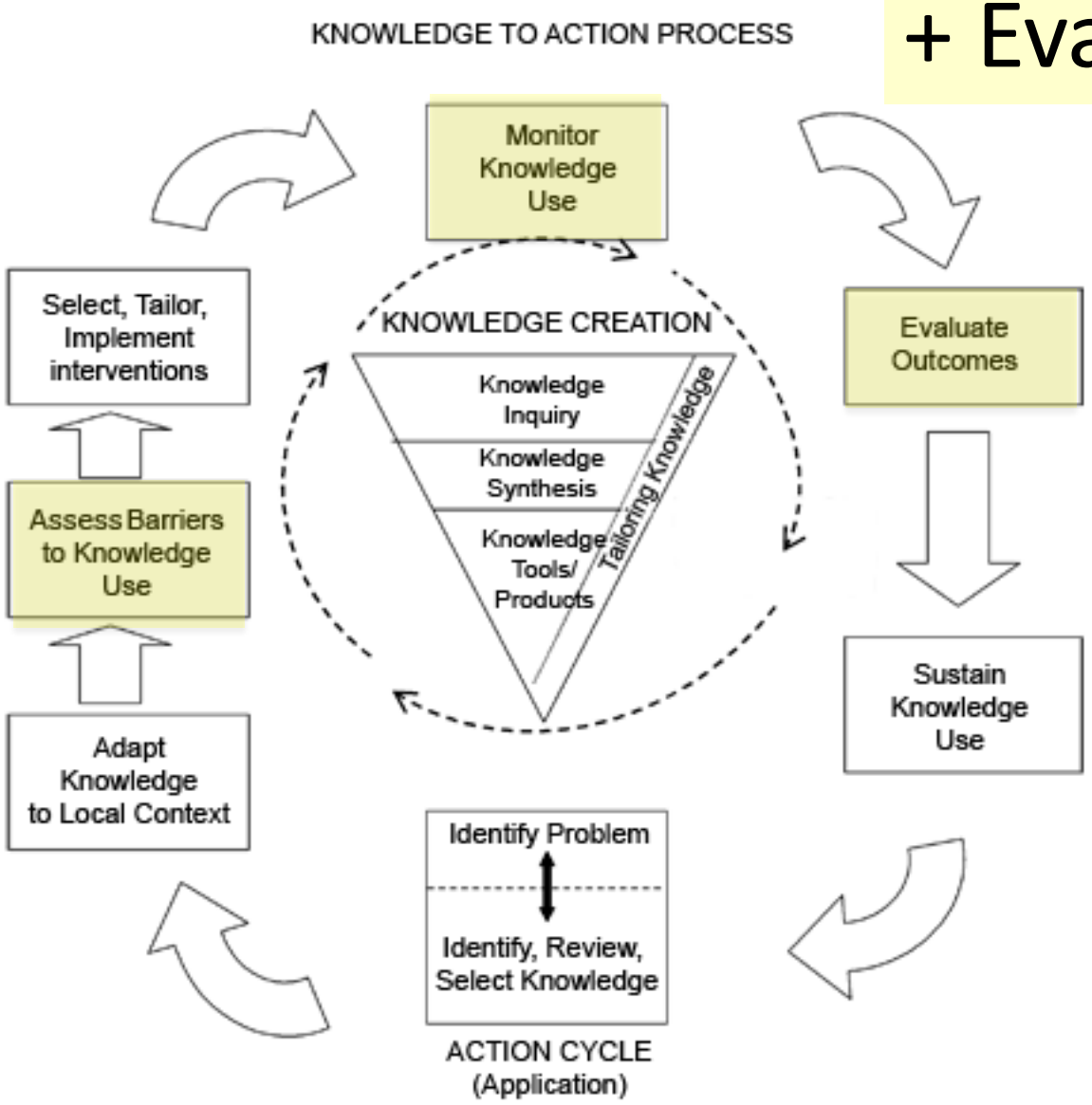
- Original cost, efficacy, acceptability and sustainability categories
- pertain the ability to respond to the changing demands of dengue risk and community needs through equitable, timely evaluation and knowledge translation processes

Engagement Facilitators:

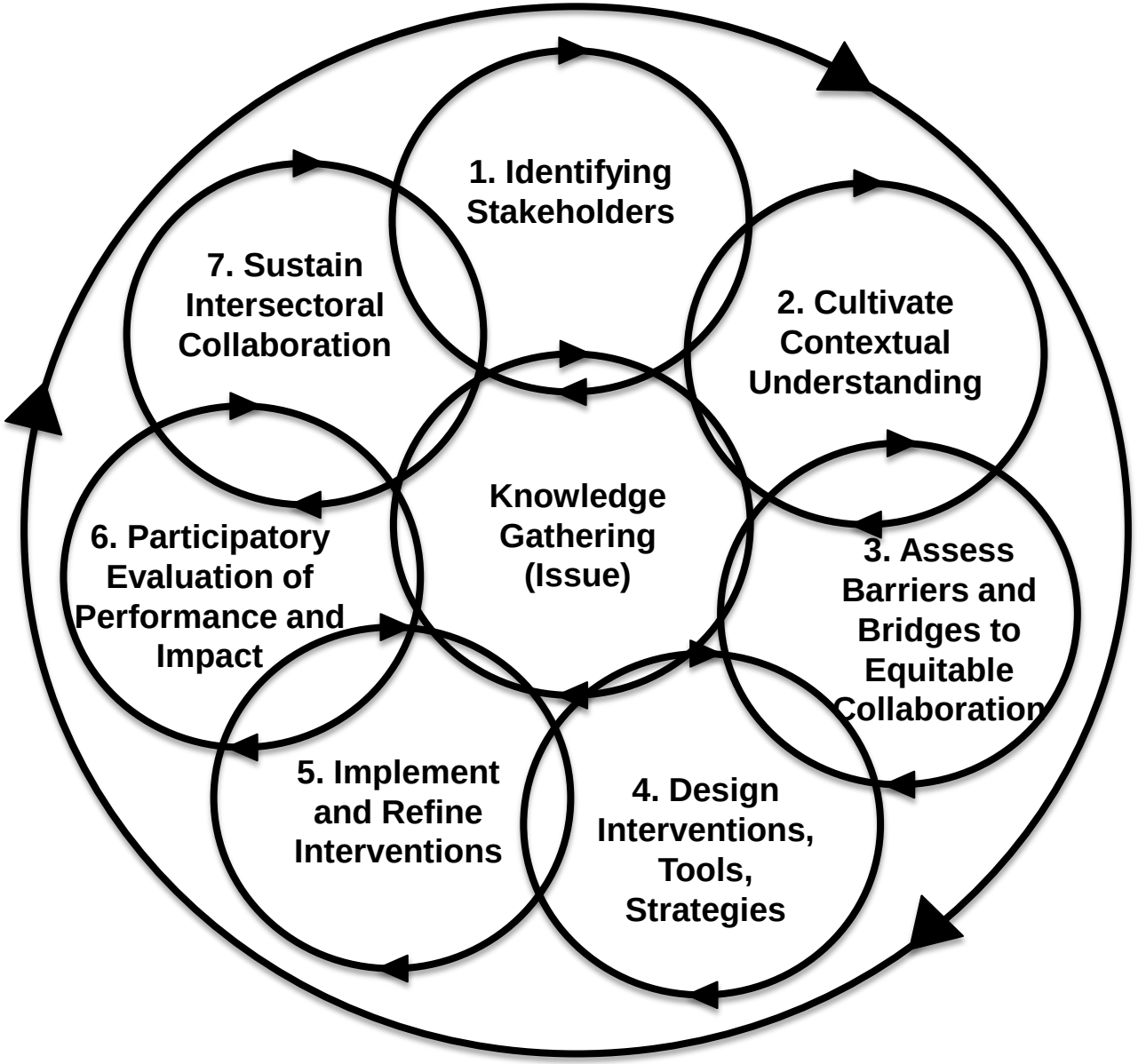
- Original cost, acceptability and sustainability categories
- “Least agreed upon” in terms of assigned importance between stakeholder groups
- may force engagement and negotiation in program design and decision-making processes.

Knowledge Translation

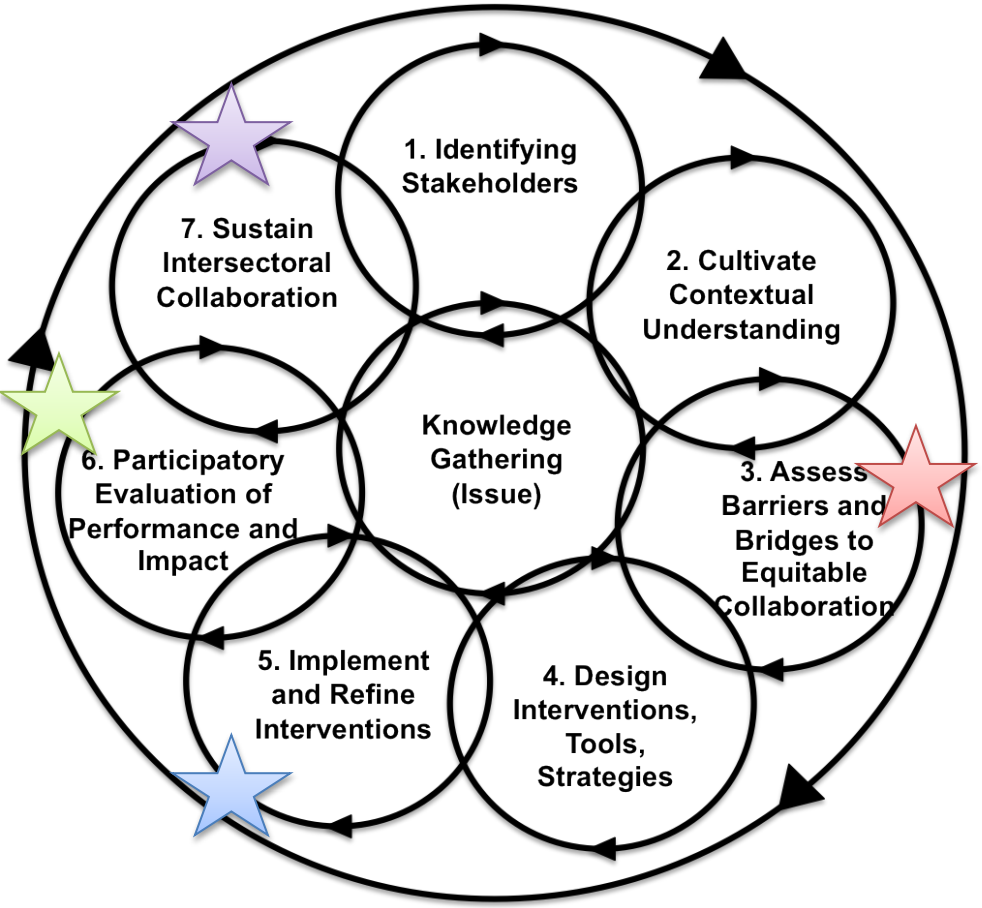
+ Evaluation

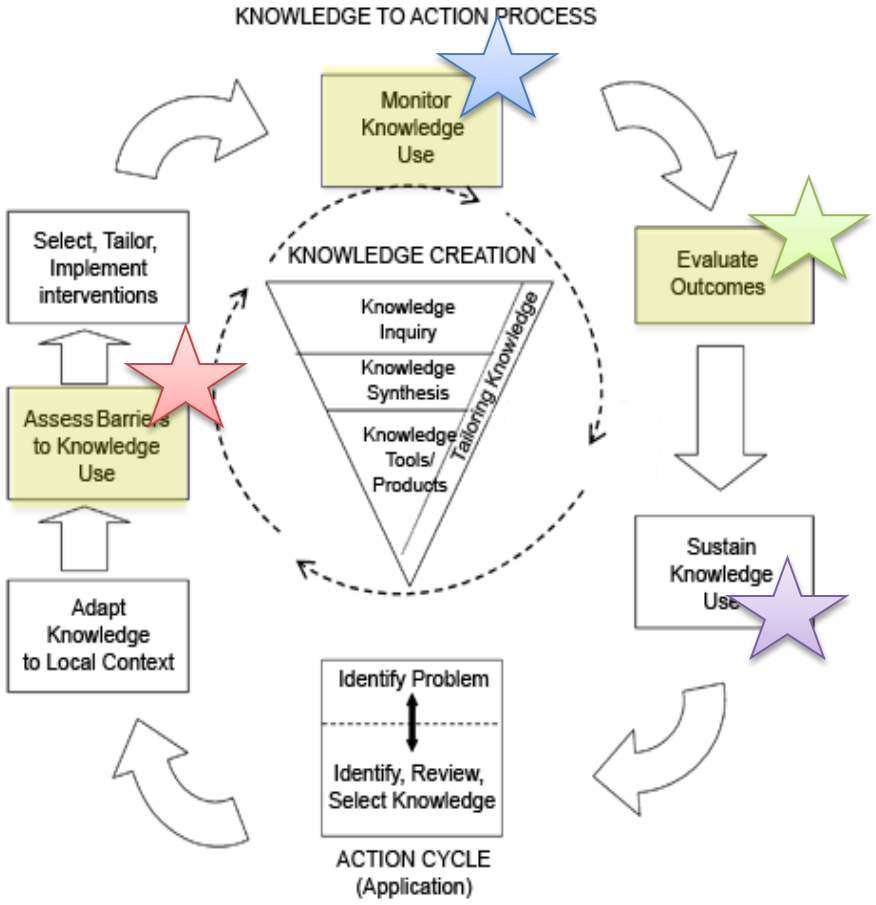


Machala Model for KT



KT processes & Evaluation



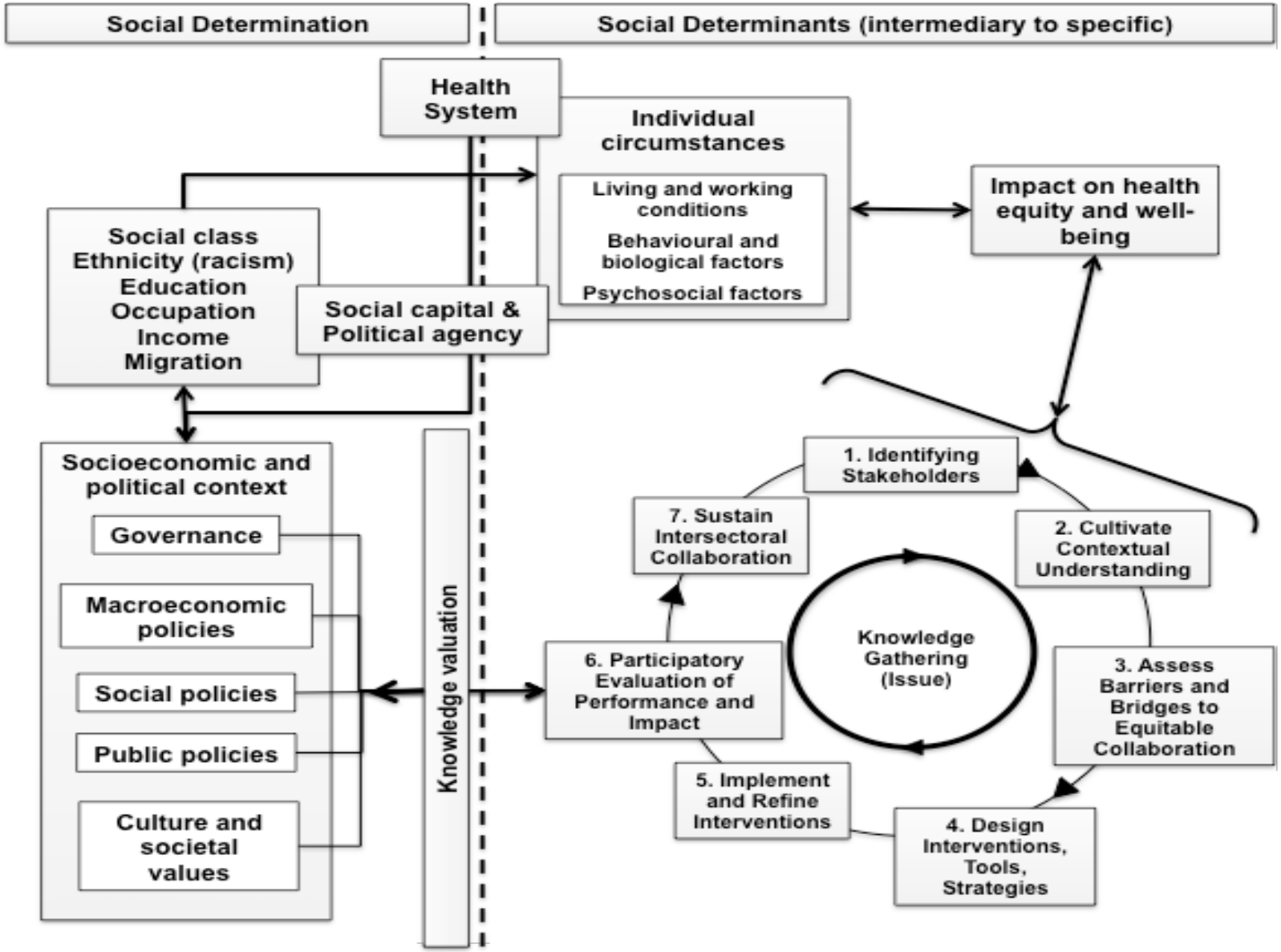


Northern BC window

- Resource extraction and economic development plans for Northern BC are fraught with power-sharing and knowledge-valuation issues.
- Pushes toward “Health-in-all-Policies” and gold standards of evidence-based practice and policy should move us to ask:

“What kind of knowledge is considered evidence, who is open to it, and what determines its usefulness?”

KT, Evaluation and Determination



Conclusions

- Stakeholder groups are not reliable predictors of opinions and perceptions
- Evaluation of participatory dengue prevention and control should reflect the day-to-day reality of program implementation
- Equitable participation is not ensured with intersectoral collaboration
- Equity-focused KT model should support improved equitable participation and allow for stakeholder-driven innovation

Thank You

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TDR For research on diseases of poverty
UNICEF • UNDP • World Bank • WHO

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Partners:

UBC

UNIVERSIDAD ANDINA SIMON BOLIVAR
Ecuador

UNIVERSIDAD TECNICA DE MACHALA

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SNEM
Zona VIII

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Dra. Pamela Pennington
Dra. Helena Brochero
Dr. Hillel Goelman
Dr. John Beatty
Mr. Ben Brisbois
Dr. Juan Gaibor
Dr. Alvaro Calle

Thank You

Familias y Directivas de los Barrios:

24 de Julio
Simón Bolívar
Martha Bucaram
18 de Octubre
3 de Noviembre
25 de Junio
Central
24 de Septiembre
El Bosque 4
Mario Minuche
El Retiro
Venezuela
Luz de América
Velazco Ibarra
Asoc. de Empleados Municip.
24 de Mayo
Manuel Encalada
7 de Marzo
9 de Octubre
Sauces #1

Colaboradores Claves:

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Sr. Franklin Ruiz
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