



Health considerations in Impact Assessment

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WORLDWIDE REACH. HUMAN TOUCH.



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Webinar moderator: Bridget John
(bridget@iaia.org)

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Housekeeping

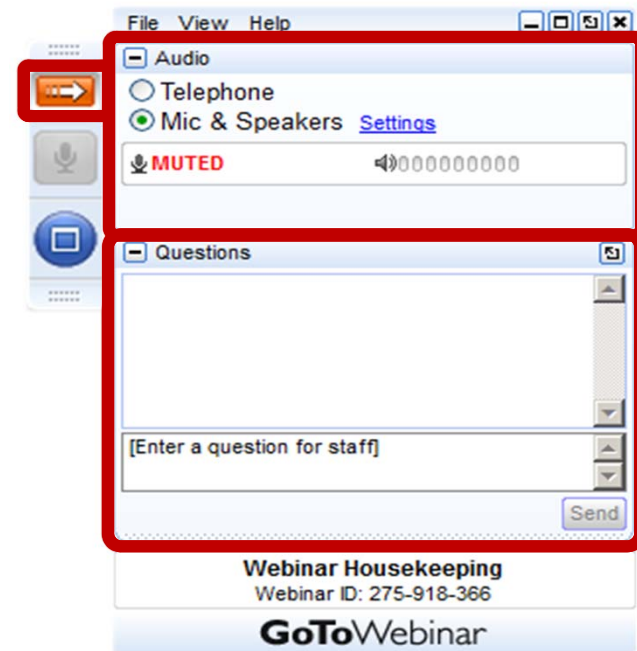
Recording?



Questions?



Slides available?



Presenter



Francesca Viliani is the Head of Public Health at International SOS and a Chatham House fellow. She is a specialist in public health and crisis management with over 20 years of working experience. At International SOS, she oversees the capacity building for and delivery of Health Impact Assessment and public health programs for the extractive and energy sectors, as well as for mega-infrastructure development

Agenda

- Health and its determinants
- HIA & Regulations and requirements
- Why health in Impact Assessment?
- Health data and indicators
- Examples
- Q&A

Today Webinar

Yes

- Definitions & References
- Intro on how to go about health inclusion
- Focus on projects – extractive and infrastructure
- Examples from low and middle income countries

No

- Assessment of policies, programs, plans
- Health in SEA
- Occupational Health
- Detailed methodology for quantifiable risk assessment



Health and its determinants

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Health, we all know is important

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

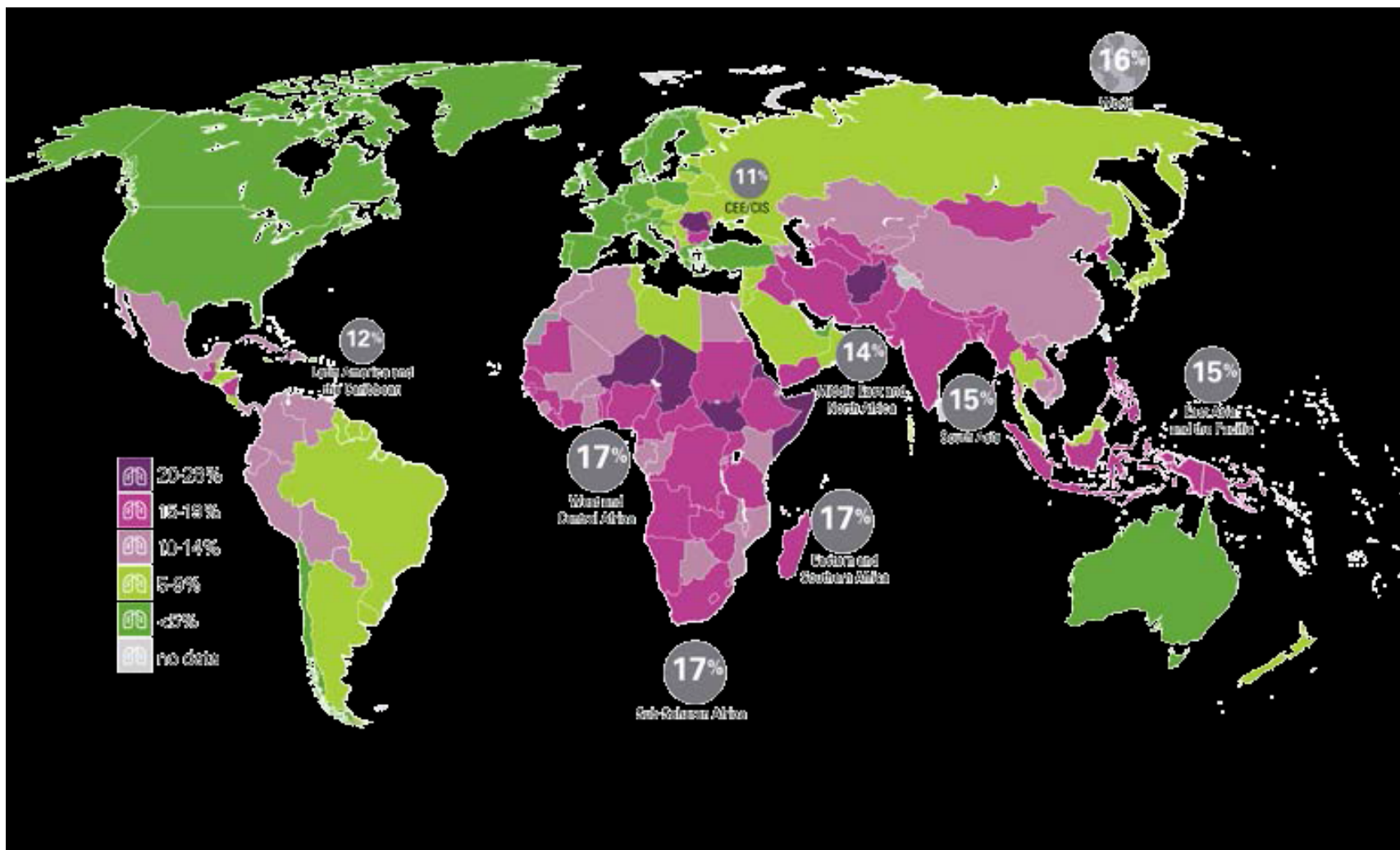
Preamble to the Constitution of the World Health Organization (WHO), July 1948



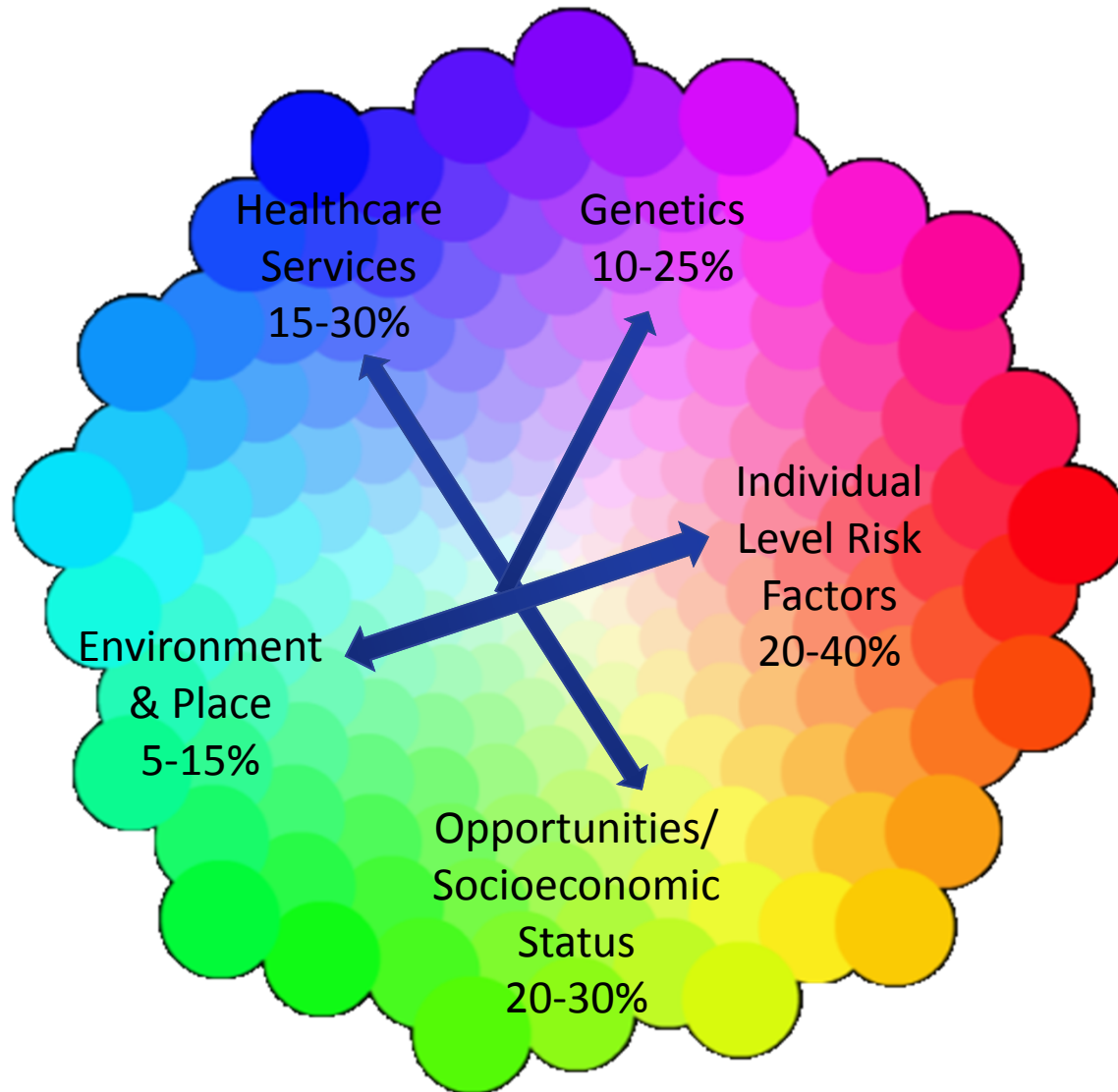
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Health or Disease?



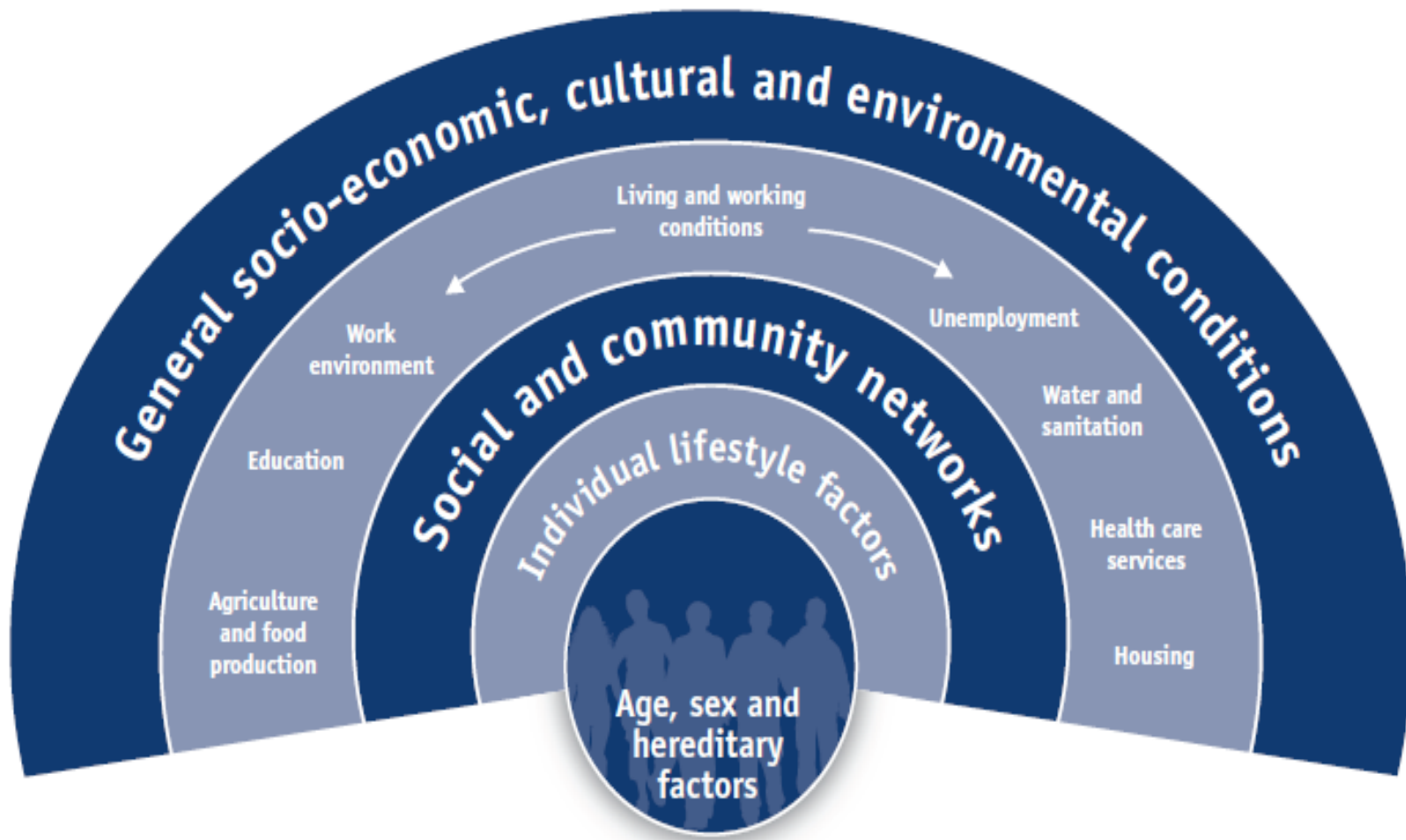
What determines health? (A fuzzy pie chart)



Schroder S. (2007) We Can Do Better: Improving the health of the American people. New England Journal of Medicine, 357, 1221-1228

Ben Harris Roxas Health Impact Assessment (2014)

Determinants of health



With sensitivity to determinants and definitions important to communities, example from First Nations in Canada



First Nations Health Council
<http://fnhc.ca/initiatives/te-work/>

Health Impact Assessment



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HIA definition and values

“[...] a **combination of procedures, methods and tools that systematically** judges the potential, and sometimes unintended, effects of a policy, plan, programme or **project** on the health of a population and the **distribution of those effects within the population**. HIA identifies appropriate **actions to manage** those effects”

From “Health Impact Assessment International Best Practice Principles.” IAIA Special Publications Series No. 5. September 2006

HIA practice is underpinned by the following values: **recognition of human rights, democracy, equity, sustainable development, and ethical use of evidence**. HIA strives to be inclusive and uses comprehensive definitions of health

From “Health Impact Assessment - FasTips” No. 8 July 2014

Triggers : Health in IA

- Key drivers for the consideration of community health and safety in ESHIA are:
- **International funding requirements** – IFC PS4 and similar
 - **National** health or sectoral plans, assessment guidance, legislation, monitoring
 - **Company internal policies** and commitments
 - Interest in identifying positive impacts and support community investments
 - Typologies of projects known for leading to long lasting negative community health impacts



International Funding

- Requirement that human health be considered according to IFC Performance Standard (PS) 4 **on Community Health, Safety, and Security** and their supporting guidance:
 - Loan agreement with IFC
 - Loan agreement with Equator Principle Financial Institutions (EPFI): 89 adopting finance institutions as of March 2017) <http://www.equator-principles.com/>
 - Loan agreement with any financial institutions that might require the fulfillment of EPFI
- Other Development Financial Institutions/Regional Banks have safeguards that require to address community health and safety. For example Asia Development Bank, European Investment Bank, etc...



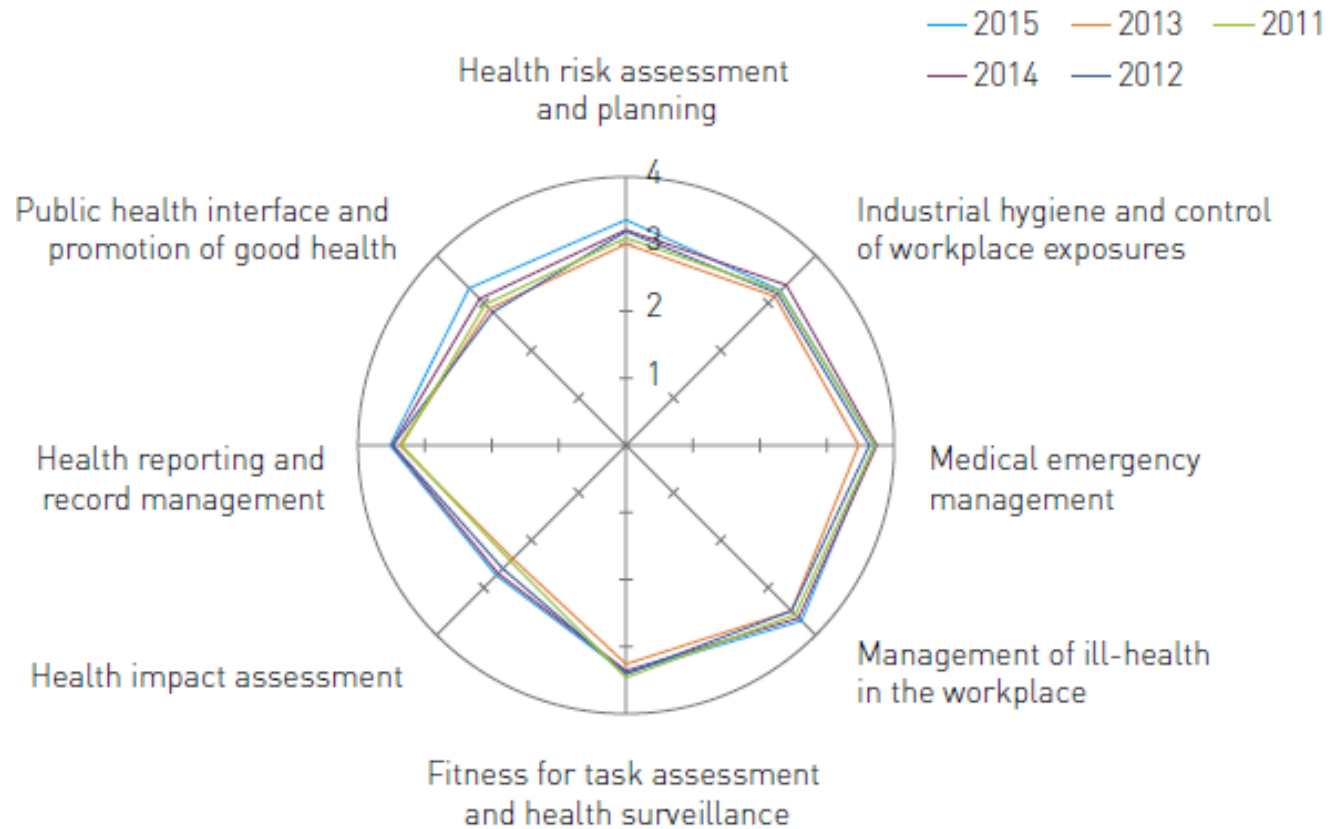
National Requirements

- Different types of legislations and requirements at national or sub-national level specific on HIA/EIA:
 - Some Asian countries (e.g. Republic of Korea, Lao People's Democratic Republic, the Philippines, Thailand and Viet Nam)
 - Certain states of Australia (e.g. Tasmania and Victoria), Canada and New Zealand
 - EU Directive
- Mining codes or legislations might require to address health issues (e.g Democratic Republic of Congo). Similarly any legislation on natural resources might have an “health” clause
- Health legislation at national or sub-national level
- Other legislation (e.g. Water quality, Labour and welfare, etc...)



Company Policies

Health Leading Performance Indicators IOGP/IPIECA

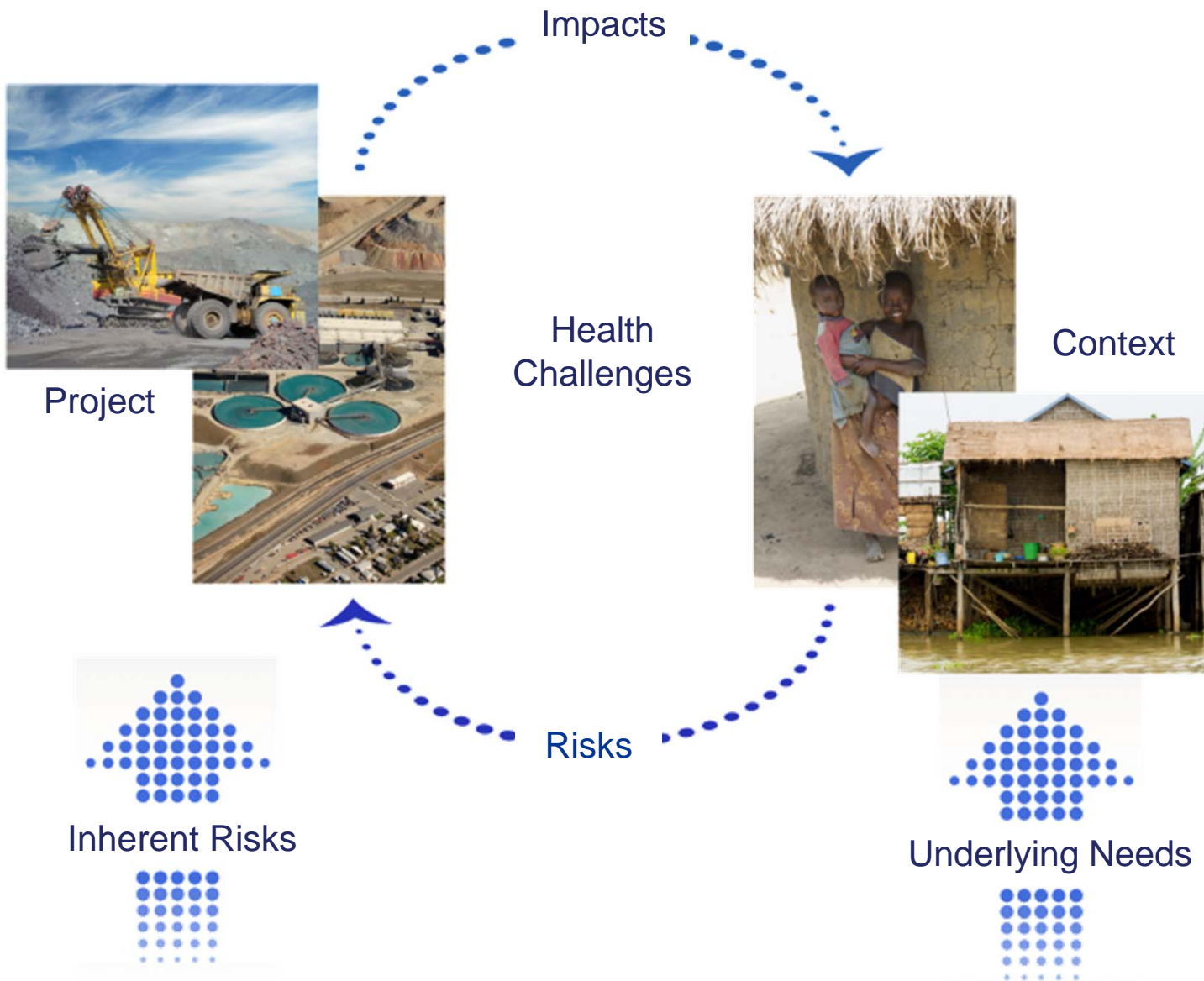


Why health in Impact Assessment?



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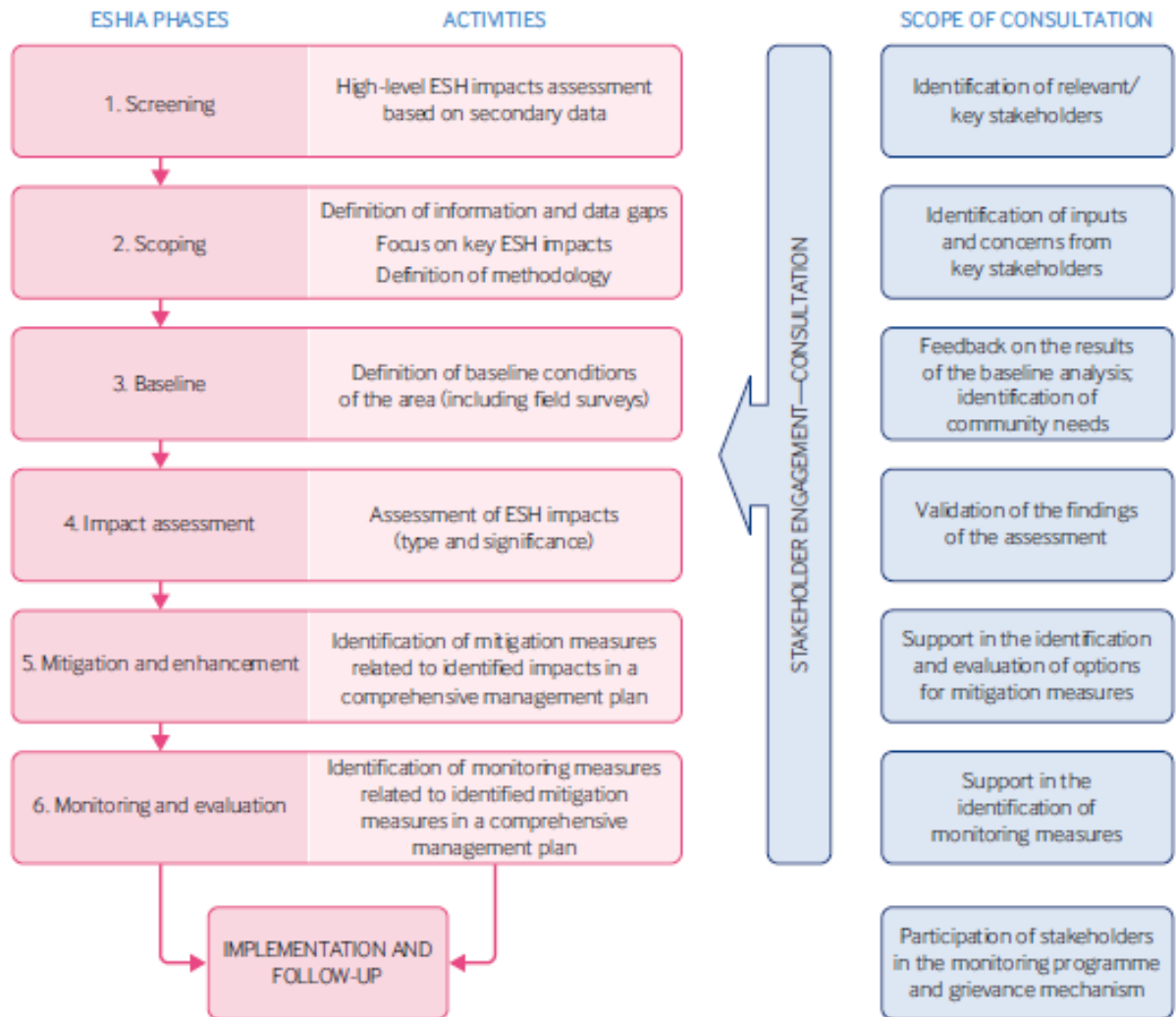
Environmental Health Areas (EHA)

Environmental Health Areas	
1	Vector-related disease – malaria, leishmaniasis and ectoparasites, etc.
2	Housing and Respiratory issues – acute respiratory infections (bacterial and viral), pneumonias, tuberculosis; respiratory effects from housing, overcrowding, housing inflation.
3	Zoonotic Diseases – animal to human disease transmission; potential disease distributions secondary to changes in animal migration patterns due to project-related activities or infrastructure, emerging infectious diseases
4	Sexually transmitted infections – HIV/AIDS, syphilis, gonorrhoea, chlamydia, hepatitis B.
5	Soil, Water, Sanitation and Waste related diseases –e.g., giardia, hook and pin worms, etc.
6	Food and nutrition related issues – changes in subsistence practices; stunting, wasting, anaemia, micro-nutrient diseases (including folate, Vitamin A, iron, and iodine), gastroenteritis (bacterial and viral); food inflation.
7	Accidents/injuries – road traffic related spills and releases.
8	Exposure to potentially hazardous materials – road dusts, air pollution (indoor and outdoor related to industrial activity, vehicles, cooking, heating or other forms of combustion/incineration), landfill refuse or incineration ash, any other project related solvents, paints, oils or cleaning agents, by-products.
9	Social Determinants of Health (SDH) – psychosocial, resettlement/relocation, violence, and security concerns, substance misuse (drug, alcohol, smoking), depression and changes to social cohesion.
10	Cultural health practices – role of traditional medical providers, indigenous medicines and attitudes and beliefs regarding health enhancing and lowering practices.
11	Health services infrastructure and capacity – physical infrastructure, staffing levels and competencies, technical capabilities of health care facilities.
12	Non-Communicable Diseases – hypertension, diabetes, stroke, and cardiovascular disorders.

Screening

1. Assemble the team and ensure a person with health expertise is involved			
2. Identify legislative and relevant corporate requirements for health			
3. Gather and review relevant project information			
4. Evaluate Health Context (gather data and assess reliability of them)			
A. Location	B. Influx & resettlement	C. Culture/Socio-economic	D. Vulnerable / marginalised groups (both socially and physiologically)
Rural Urban Peri-urban	Temporary Permanent Countries or locations of origins (workers and communities) Resettlement	Social structure/Tribal/Clan Subsistence agriculture Level of wage/cash economy	Resettlement Indigenous/ethnic minorities Children LGBT Disable Elderly
5. Review project design			
Water bodies Waste management Roadways, pipelines Construction camps Operation facilities Source of potential exposure Transmission-line corridors Protected Areas/Biodiversity concerns			
6. Review the possible health impacts using environmental health areas			
7. Identify potentially health impacted geographic areas and potentially affected communities			
8. Identify key-stakeholders			
9. Determine whether a deep health consideration is needed			

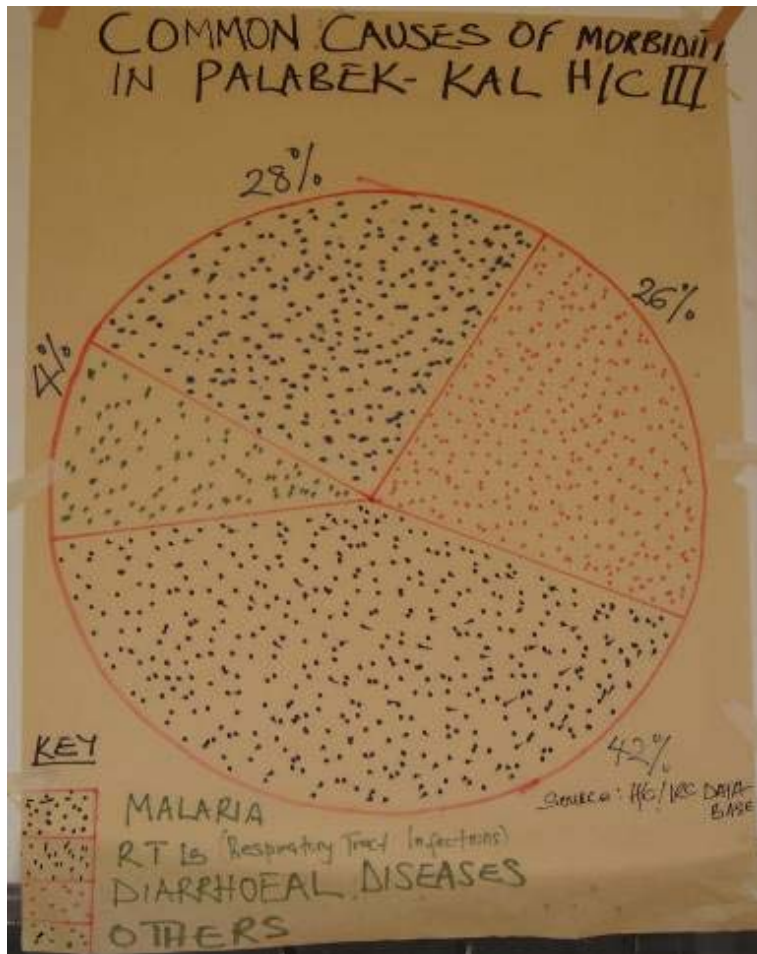
Health in ESHIA process



Health data and indicators



Health baseline and secondary data...



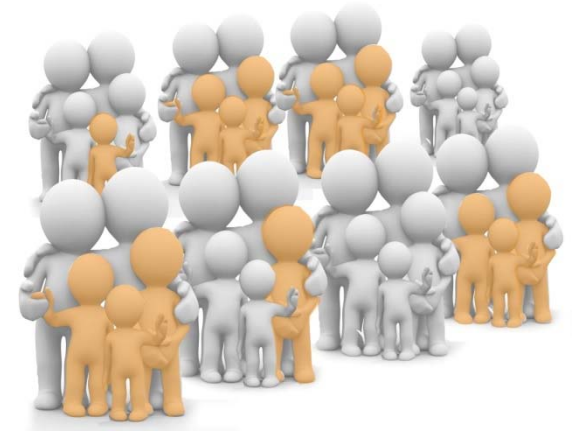
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How reliable data are?

What do data represent?

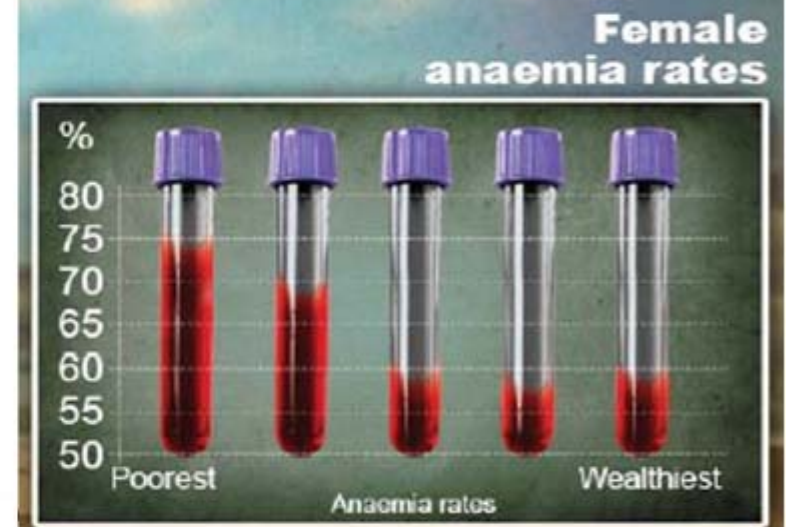
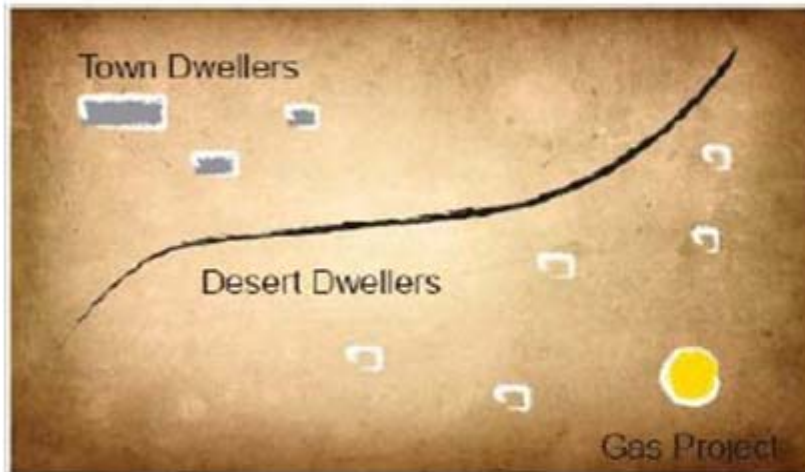


Health indicators for what?



- **Understand** existing health conditions communities
- **Recognise** expectations and **needs** of communities
- Assist with **prediction of impacts** (changes and interactions among the determinants of health)
- **Inform management plan** (culturally relevant, socially acceptable, and cost effective)
- Support **monitoring** procedures and assess effectiveness of recommendations

Understanding in order to manage...

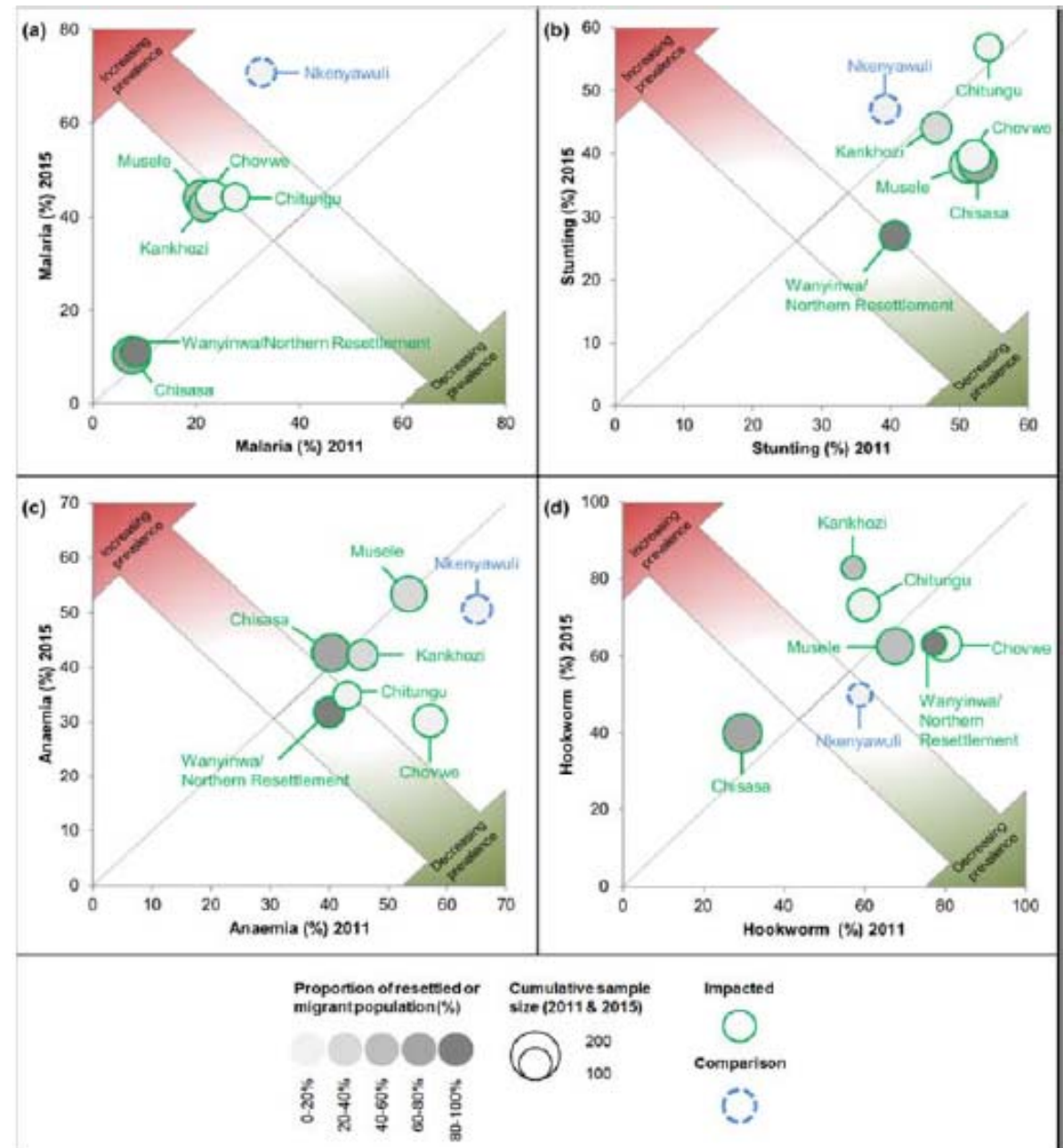


From M. Birley and F. Viliani (2010)
"HIA of a Gas Project" poster
presented at WHO HIA day

...and monitor and report

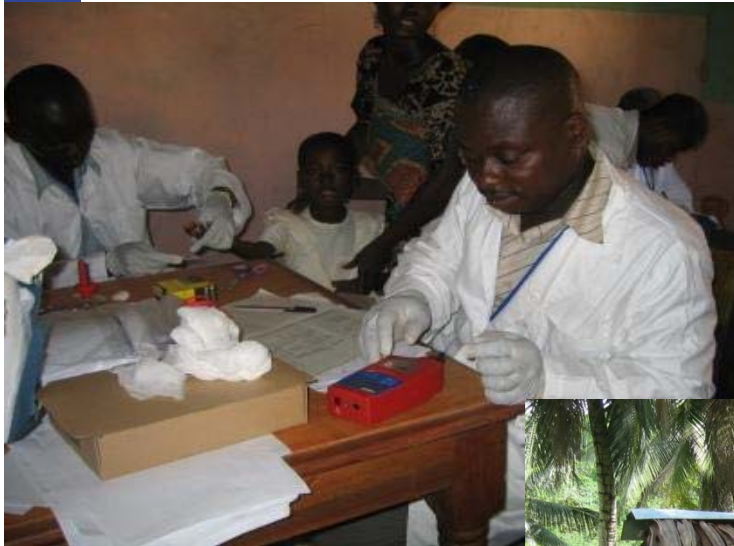
Two cross-sectional surveys:

- at baseline prior to project development (2011) & four years into development.
- Prevalence of Plasmodium falciparum, anaemia and stunting, and hookworm infection in children in communities impacted and comparison communities not impacted by the project
- Impacted communities were better off in 2015 and better health status than comparison villages

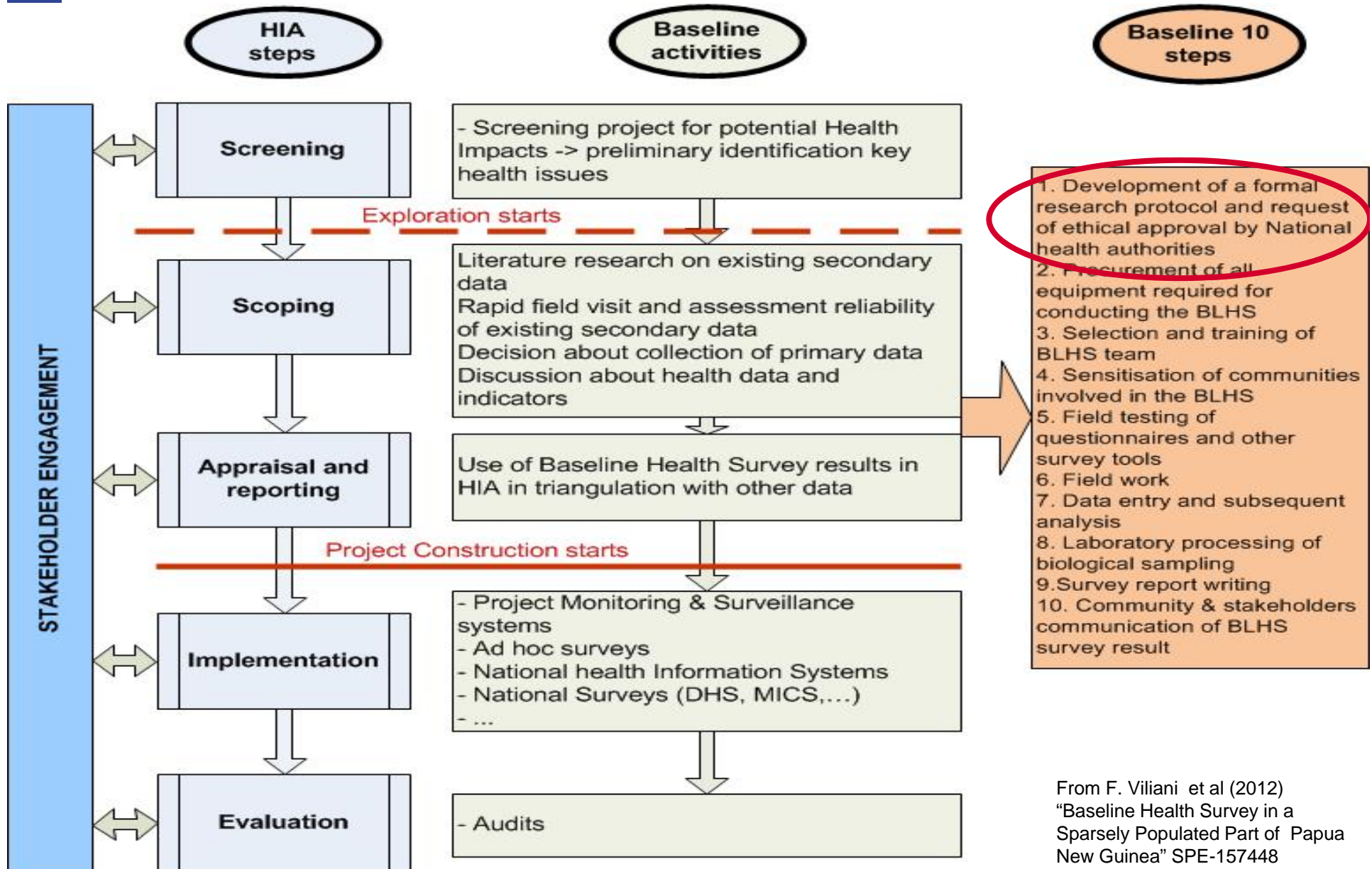


From A.M Knoblach (2017) "Monitoring of Selected Health Indicators in Children Living in a Copper Mine Development Area in Northwestern Zambia" doi:10.3390/ijerph14030315

Primary data collection and observations



Health surveys and studies



From F. Viliani et al (2012)
 "Baseline Health Survey in a
 Sparsely Populated Part of Papua
 New Guinea" SPE-157448

Examples of health inclusion in IA

Project Activity						
Determinant of health	Pathway	Health effect	Time scale	Geographical scale	Probability	Population

IMPACT CHARACTERISTIC (magnitude)

IMPACT IMPORTANCE (value)

IMPACT SIGNIFICANCE

Potential Consequences						
Likelihood	Positive	Hardly any	Little	Considerable	Great	Extreme
High	Positive	Moderate	Moderate	Major	Major	Major
Medium High	Positive	Minor	Moderate	Moderate	Major	Major
Medium	Positive	Minor	Minor	Moderate	Moderate	Major
Medium low	Positive	Negligible	Minor	Minor	Moderate	Moderate
Low	Positive	Negligible	Negligible	Minor	Minor	Moderate



HIA can be comprehensive

- Spread of vectors associated with malaria and yellow fever
- Spread of zoonotic diseases
- Workforce arriving in the area could have re/introduced diseases that were no longer present in the area (ex. Risk of importing Yellow Fever from Africa)
- Altering of water quality (water borne diseases) and soil quality (affect livelihoods, nutritional status)
- Increased risk of disease transmission (HIV, STIs)
- Increase of traffic injuries
- Increase of air pollution
- Lack of inclusion of health in emergency response plans

Health included early

- The screening considered STI a potential impact and included it in the ESHIA
- The scoping phase identified a dramatic increase in the number of AIDS cases in general in country
- FGDs were conducted with 3 main groups: High risk groups (transgender; CSWs); Villagers; and Local health workers. This allowed to understand the power dynamic and the local market for “sex”
- The HIA considered both transgender and the local men at high risk of contracting HIV and STIs, because none of them was mindful of practicing unprotected sex with high risk partners
- Recommendations & mitigation measures were developed suggested in HIA for the community as well as for the employees, and were based on the national HIV strategy and discussed with the local district health teams

HIA, pathways and health outcomes

Impact Assessment Table: Malnutrition				
Group affected	Pathway	Examples of mitigation measures	Partnership	CSR
Urban area	Inflation	<ul style="list-style-type: none"> • increase production; • improve quality and standards of agricultural products; • local procurement for canteen. 	Yes	Yes
Rural area	Deforestation	<ul style="list-style-type: none"> • strengthen the forest protection program; • to support alternative income generation activities. 	Yes	Yes
Women/ Single Mothers	Existent need	<ul style="list-style-type: none"> • to support kindergarten attendance and daily meals for their children; • to devise micro-finance programs targeting their specific needs; • Promote favorable food distribution in the family (gendered education) 	Yes	Yes

Information

Poor/delayed information
↙ ↘
Lack of trust in information
↙ ↘
Perceived misinformation

Fishing

Food insecurity
Loss of cultural/traditional practices
Economic losses
Increased competition

Conflict

Inter-community conflicts
Intra-community conflicts (e.g. mine employees)
Conflict with company and government
Violation of rights

Environment

Destruction of river system and land

Emotional stress

Potential health effects

disorders

Suicide

Cancer

Obesity

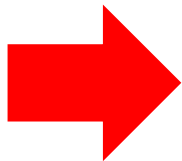
Diabetes

Cardio-vascular diseases (CVDs)

Unhealthy behaviors
(e.g. alcohol, smoking, over-eating)

From Janis Shandro et al (2017) "Mount Polley Mine Health Impact Assessment: Screening and Scoping Phase" presented at IAIA Montreal

HIA and risk register



Lack of proper sanitation, periodic flooding, no potable water, internal migration of population, no response capacity within the district.

Cholera history at the time of the HIA: first outbreak in 1996, second in 2002, third in 2006, then in 2007, 2008 , 2009.

The approach to manage the risk was rooted in the understanding of ecosystem services, socio economic issues, roles and responsibilities of different authorities, and health context.

Public health program and other initiatives started, budget and supervision carried out by HSE project manager

Health and resettlement

Living quarters might be associated with the spread of infectious diseases and indoor air pollution

Community cohesiveness and organisation is important for health seeking behaviours, among other things such as psychosocial support

Services such as medical care, schools, water directly affect health status of communities

© Francesca Viliani - 2007

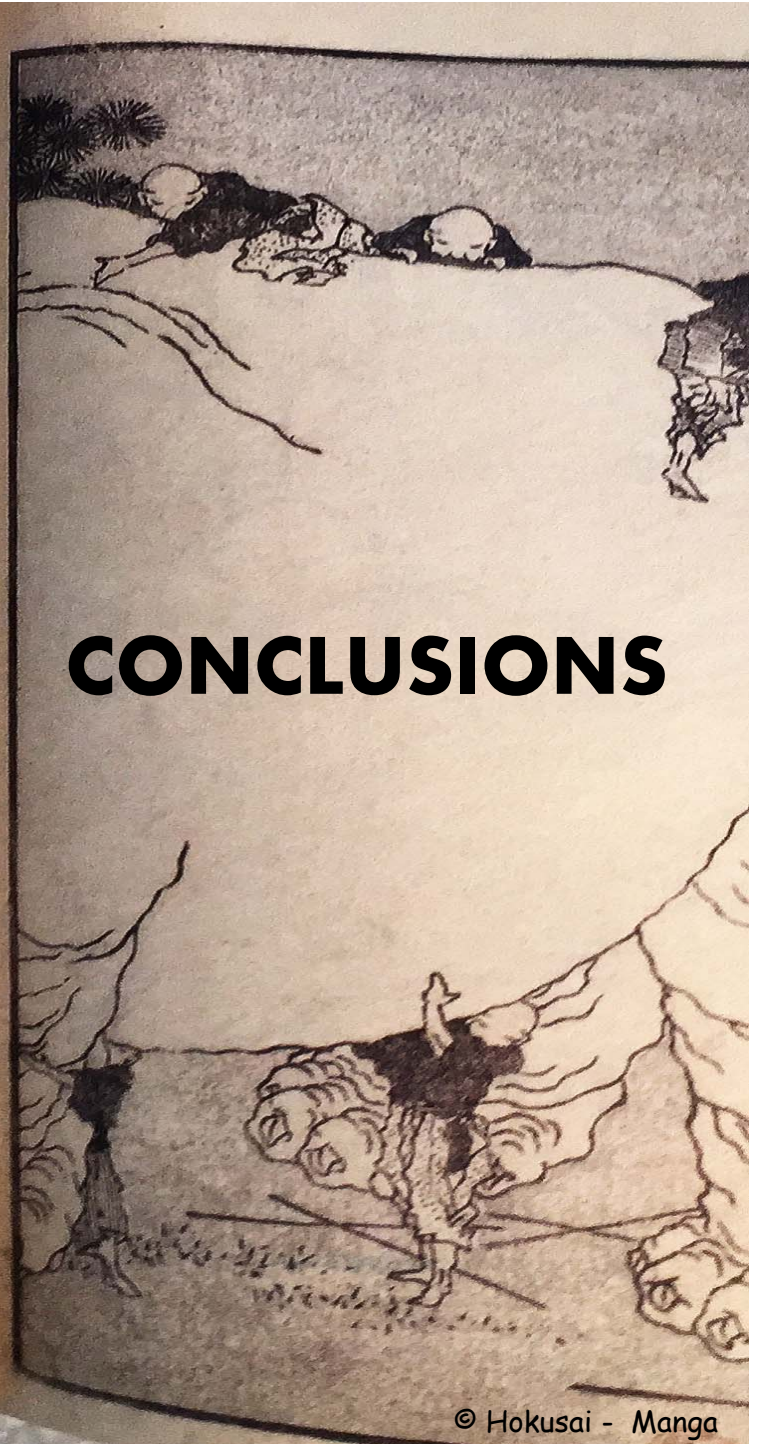
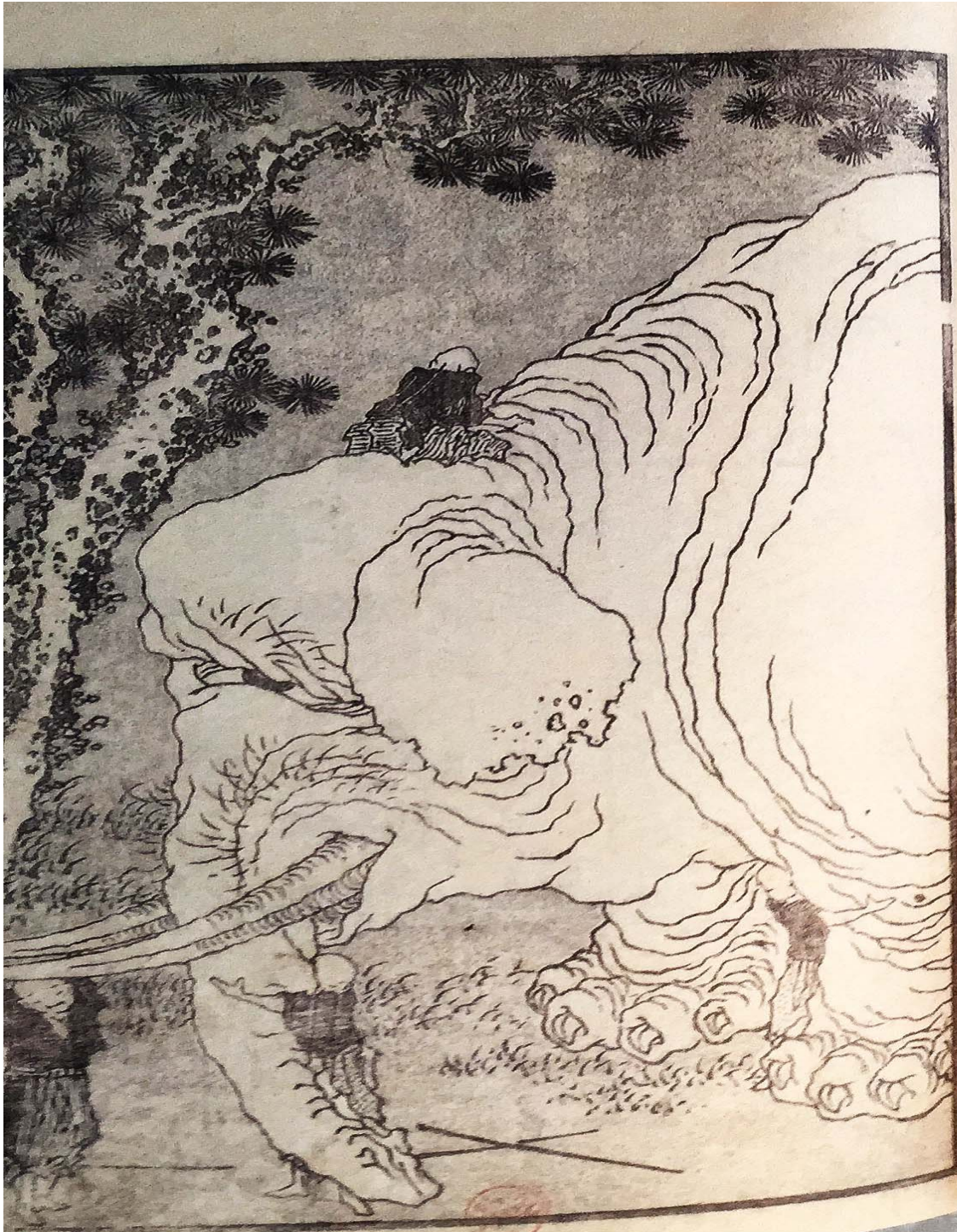


Waste management and hygiene practice influence many diseases

Soil fertility and pollution impact nutritional status

Livelihoods essential for income, plus nutritional status. Be aware of livestock for zoonotic diseases

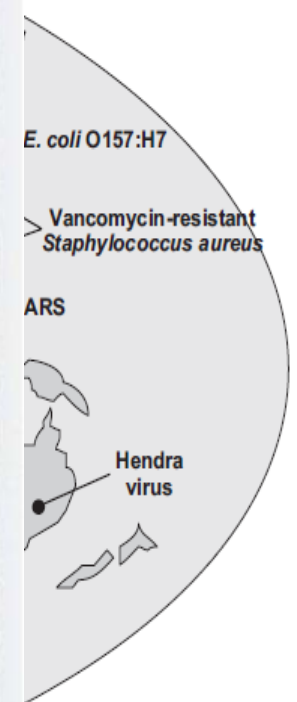
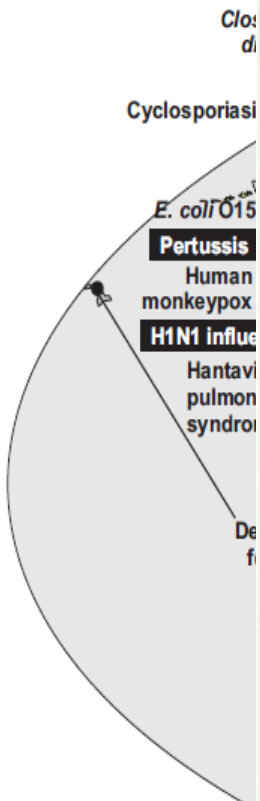




CONCLUSIONS

Impacts of the Highly Improbable?

Emerging



Health not properly included

- **If the health assessment is a subset of the social one:** than all the environmental determinants of health have not been considered;
- **If the health baseline only describes morbidity and mortality:** health is a positive concept and diseases are just one part of it;
- **If the health baseline does not describe** how reliable are the health indicators collected at the health facilities, does not link the local data to the national/regional ones, does not provide reference to the national policy and resources;
- **If health and safety considerations have not been made with respect to cross cutting issues** such as ecosystem services, animal health, livelihood, resettlement, emergency response, etc....



© Francesca Viliani - 2014



Conclusion and recommendations

- Community health and wellbeing will be the long lasting legacy of any project
- HEALTH should always be included as there are always health and safety impacts, both positive and negative
- Health inclusion is more than asking a local doctor to provide some health indicators
- It does require a multidisciplinary approach and not just a last minute health addition
- Be part of the force for change and get a health expert involved early in the process or become a health expert to ensure health is properly covered!
- **Join the Health section of IAIA and keep the dialogue going!**



A photograph of a white Volkswagen Beetle on a lift next to a red building with a balcony, under a cloudy sky. The car is positioned on a black metal lift structure. The building has a red facade and a balcony with white balustrade. The sky is filled with large, white, fluffy clouds. The text "Thank you!" is overlaid in a bold, brown font in the upper right quadrant of the image.

Thank you!

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