

Health research in Suriname

where science and indigenous knowledge meet

Increasingly, indigenous communities are suffering from study fatigue. They are calling for an end to the traditional scientific approach to health research and management. So how can science and indigenous knowledge meet to improve health and the environment? Daniel Peplow, Sarah Augustine, and Leon Eric Wijngaarde share a new approach in Suriname which aims to resolve these differences.

Indigenous communities are pointing to the frequency with which they are over-studied in their settings. While scientists collect samples and study risk, indigenous individuals and communities are frustrated because they are not benefiting adequately from the results. They recommend that researchers recognise the effects of 'research pollution': that is reticence, despair, mistrust and non-disclosure.

In Suriname, risk assessment studies estimated the potential impacts of mercury pollution from gold mining on public and environmental health. However, few studies have actually been published and are available for use by indigenous and tribal communities to advocate for change. After decades of research, participating individuals and communities are frustrated. The results are not available for them to use, nor do they have any long-term relationships with individuals or agencies conducting the research. "People come often. They say big things, make promises, then leave. I say if you want to help, then talk to us, listen and help. Otherwise, just go away," one indigenous leader said.

Findings from public health research on the impacts of gold mining are being suppressed. This further obscures public health risks and leads to insufficient and misguided regulation. Foreign researchers and in-country collaborators are warned by politically and financially

motivated officials of 'dire consequences' if they communicate the effects from mercury contamination from gold mining.

Defenders of scientific censorship claim that a government has the right to set policy and deliver its own message in its own words. Under this system, research is highly institutionalised and is an integral part of political structures: funding agencies, universities, development programmes and policies. Research is regarded as the domain of governmentally sanctioned experts who have advanced educational qualifications and have access to highly specialised language, skills and resources.

Where can science and indigenous beliefs meet?

Various scientific research institutions have adopted ethical research guidelines that encourage indigenous and tribal communities to participate. Typically, new guidelines include checklists, emphasise full disclosure, and require written documentation of consent and support from community leaders and participants. The research follows ethical guidelines developed from mainstream 'Western' perspectives and approved by institutional review boards, yet it is generally conducted in a cross-cultural environment, and is influenced by a relationship between researchers and subjects where there is often an imbalance of power. Because of this inequity, indigenous peoples are increasingly resisting research studies that ignore their community needs and priorities.

In general, scientific communities argue against the involvement of indigenous people in research because the complexity of the issues is 'not discernible by villagers'. Indigenous communities argue that the unique cosmology of forest people, who do not see a clear-cut distinction between the sphere of nature and the sphere of

society, is not discernable to Western scientists. Scientists face a huge credibility problem with indigenous people because of this position.

Indigenous people's self-diagnosis through research

To avoid indigenous people being marginalised by the research process, a new proposal is for community-based or community participatory research to be taken to a new level; a level which mainstream researchers may consider extreme or untenable.

Indigenous communities are calling for support for research projects that are culturally appropriate, community-owned and directed. This means research that combines both scientific and traditional knowledge systems. Western science focuses on hypothesis testing through data collection and statistical analysis. Indigenous traditional knowledge is based on cumulative experience, close observation and oral knowledge communicated by elders and handed down over generations. How do you combine the two effectively?

Some communities in Suriname are experimenting with the approach. Maroon communities (tribal communities descended from African slaves that escaped from plantations in the 15th and 16th Centuries) and indigenous Wayana communities are acting as leaders to create a collaborative environmental health research project. In May 2009, Suriname Indigenous Health Fund (UW non-profit) and Stichting Wasjibon Wadeken Maria (Suriname Indigenous non-profit) assisted communities of Apetina and Anapayke to assess the risk from exposure to mercury.

These community-owned studies have one over-arching objective: to support indigenous and tribal communities who want to self-diagnose the effects of



Collecting hair samples to perform mercury analyses and determine risk from exposure to mercury from gold mining Photo: Daniel Peplow

development programmes and resource extraction projects on their community and environment. The communities universally identify four objectives:

1. To determine whether they are at risk from contamination of their food and water by waste from mining and siltation;
2. To assess the potential health impacts from mercury exposure;
3. To address the effects of neo-liberal economic development programmes and land privatisation policies on the health and well-being of their communities, and
4. To publish their findings, participate in discussion forums and be acknowledged as legitimate stakeholders by national and international government agencies.

Opponents of the approach say that a broader perspective of the issues affecting these villages is necessary. They argue that the complexity of the issues is insufficiently discernible by villagers. They claim that instead of

raising concern for environmental issues we could inadvertently cause alarm towards 'structural adjustment' (poverty reduction) programmes. When scientists argue that wise decisions can only be made by scientific experts, they are promoting one type of 'specialised knowledge'. We argue that scientific knowledge can only guide, not dictate societal decisions.

Research conducted on behalf of indigenous peoples should avoid the biases caused by Western systems for organising, classifying and storing new information, and for creating theories about the meanings of discoveries. Often, scientific opinions themselves are conflicting, and it takes time to find a consensus. It is our opinion that environmental and public health controversies in Suriname have little to do with science and everything to do with an ethical and political debate over the allocation of resources, their extraction and the effects on indigenous communities.

The community-owned and community-driven approach being applied in Suriname reframes research,

development and the solution to problems. It affirms scientists as experts and indigenous people as equals. Anyone that contributes to the over-study of indigenous communities - including funders, research institutions, researchers and community partners, corporations, military and others - can take an important first step in addressing this long-standing problem by considering this new approach.

This article was translated into the local language, Wayana, and shown to indigenous community members to get their feedback. Aptuk Noewahé, Wayana Granman (leader) from Apetina said, "We support the article and the research because you made us partners in the project and we are involved. Usually people don't discuss their work with us, not even the results of their work. We fully support the [Health Exchange] article because it is important that our problem be known by others . . ."

Daniel Peplow, PhD, Co-director SIHFund
Sarah Augustine, Co-Director, SIHFund
Leon Eric Wijngaarde, Stichting Wadeken Wasjibon Maria
SIHFund@sihfund.org