BACKGROUND
Health Action International (HAI) and the Médecins Sans Frontières (MSF) Access Campaign invited community-based snakebite experts across the global south to participate in a two-day virtual meeting in July 2021 to discuss community engagement in snakebite prevention and treatment. The meeting collected their viewpoints, experiences, and best practices as a means of helping to design and implement future community engagement approaches. The meeting also explored collective interest in creating a permanent platform to represent the voices of community experts to improve collaboration and coordination among the low- and middle-income countries (LMICs) on snakebite issues.

The World Health Organization’s (WHO) snakebite roadmap strategy to cut snakebite envenomation (SBE) deaths and disabilities in half by 2030 depends on all four of its primary pillar components being funded and supported simultaneously. One of those components, empowering and engaging communities, is largely underprioritised by the global health community. Progress made towards the above 2030 targets in other associated areas, such as strengthening the supply chain, treatment and technology, will fall short of helping the communities they aim to serve if communities’ needs are not heard and met. Therefore, this meeting provided an important stepping-stone on a path towards ensuring that a network of community experts has a recognised place to advocate for and on behalf of communities and their needs. The bottom line is that we cannot improve snakebite outcomes without properly engaging communities to demand progress in the treatment and prevention of snakebite.

The document is intended to serve as an introduction to, and recommendations for, rolling out community-based activities and interventions from the perspective of snakebite community experts. It is particularly relevant to health policy makers in snakebite endemic countries, health officials of provinces and districts, leaders of NGOs and CSOs as they plan for interventions at the community level. Primary targets are communities themselves, reflecting on the priorities, synergies and needs of fellow community experts.
PURPOSE OF COMMUNITY ENGAGEMENT
With the overall objective to achieve the roadmap goals mentioned above, the workshops were at the core of the meeting and were intended to initiate and improve progress in community engagement responses through networking, information exchange and sharing of best practices among community experts in these specific thematic areas:
• First response
• Community education
• Prevention
• Snakebite and conservation
• Advocacy
• Community-based research

MEETING’S TECHNICAL FORMAT
The community engagement meeting was conducted by Zoom and facilitated by the consultant Orla Cronin and her team. Orla and the team helped design the workshops, facilitated the dialogues during the sessions, and provided a producer to support internal resources and manage the interactive Miro board. The online format made possible by the Miro software provided an opportunity to employ many of the same learning methods used in face-to-face workshops but adapted to a virtual environment. The use of digital channels enabled experts to work within small groups to dialogue about the most urgent of the meetings’ and workshops’ themes, and to construct a working community engagement model for resolving snakebite issues.

PARTICIPANTS
Participants approached and invited were sourced from the global networks of both HAI and MSF.

In total, 59 participants attended the meeting’s workshops on one or more days, representing 24 countries consisting of:
• Snake Handlers: including NGOs, conservation and community-based organisations.
• Local NGOs/CSOs: including those from snakebite specific organisations with a broader reach, including access to medicines and health rights.
• Healthcare personnel: including community-based healthcare workers, front-line doctors, first responders and local community members.
• Conservationists/Herpetologists: including research institutions, NGOs and government workers.
• Researchers: including research institutes, governmental bodies and NGOs.

WORKSHOP AGENDA ON BOTH DAYS

1. Welcome, sessions, briefing and Miro training
The facilitation team provided objectives and the expected results of the workshops and some technical training to allow participants to explore the Miro software briefly.

2. Storytelling in breakout rooms
Participants were allocated randomly into small breakout rooms with a maximum of four people per room. A storytelling element was a fundamental building block for each workshop, enabling participants to break down cultural and virtual barriers and feel empowered to find their unique voices, tell their own stories and build community.

3. Breakout sessions: Highlight main problems and find solutions
Across the different sessions, common problems were broken down in a PowerPoint presentation in order for participants to have a collective view of the various problems that make up the scope of the issue. Together, participants listed as many possible solutions they could think of for the associated problem in a short amount of time on the Miro board. The solutions were written on virtual post-it notes, one solution per note.
4. Carousel Brainstorming
While remaining in the same breakout groups, participants had an opportunity to look at other parts of the Miro board to view the activities undertaken by different groups and to discuss and contribute further via post-it notes. This allowed participants to have insight into the other sessions and share their own perspectives.

5. Feedback and closing plenary
To conclude, all participants were taken out of the breakout sessions and given opportunities to provide feedback. On the first day, several viewpoints concerning the consequences of gender on snakebite were discussed, which carried on after the meeting in a break-out room. On the second day, as part of the wrap-up, participants discussed the idea of having a permanent network to represent the group. In addition, they were given a chance to provide feedback about the meeting.

RESULTS FROM DAY 1

Snakebite and Conservation
The session addressed distinct challenges to help provide participants with a deeper understanding of how conservation can drive better snakebite outcomes. The main barriers highlighted in this session included the popularity of dangerous beliefs and perceptions, a lack of collaboration between snakebite and conservation actors and the hindrance of limited data on snake ecology, all of which heavily contribute to negative impacts on snake habitats and local communities.

Some of the solutions highlighted by participants included:

1. **Increase data on snake ecology**: Most countries have limited data on the distribution, behaviours and abundance of medically important snakes, which hinders high-risk communities and governments from responding appropriately.

2. **Improve education frameworks**: Integrate human-wildlife conflict and snakebite into national educational curriculums and school programmes and adopt education frameworks used successfully for COVID-19 for other diseases, including snakebite.

3. **Join forces and respond at scale**: Reducing human-snake conflict is beneficial to a wide range of constituents. Alleviate suffering by embarking on a common agenda that accommodates the conservation movement, community leaders, safari and wildlife managers, the agricultural community, and activists to act together, share experiences and pool resources.

4. **Invest in research**: National research institutions and snake parks play an important role in building awareness and bridging gaps in research for snake conservation and ecology.
Prevention and Mitigation
Prevention is a fundamental component of maintaining a manageable snakebite burden. Yet approaches to prevention vary and results are often not measured. In the session, participants highlighted that snakebite education often lacks messaging on prevention and lifestyle changes associated with reducing human snake encounters and are difficult to enforce. Further, community actors well-placed to deliver and scale prevention tools to broader populations are often under-utilised at the local level. Prevention messages aren’t adapted for each context and fail to accommodate local snake habitats and the needs of local communities.

The leading solutions included:

1. **Fund prevention programmes:** Increase funding to community-based organisations to provide at-risk communities with prevention interventions and the resources to ensure the impact of projects can be measured over time. Further, prevention tools such as footwear, torches and mosquito nets should be subsidised by governments, the private sector and public health agencies.

2. **Prioritise practical research to improve mitigation strategies:** Ensure that ecological research on snakes directly informs public health messages and targets prevention-based education.

3. **Taking a multisectoral approach:** Engage with WASH and other neglected tropical disease (NTD) programmes to ensure snakebite is cost-effectively integrated within wider disease and public health programmes.

4. **Harness the power of technology:** Using various communication platforms, such as social media, WhatsApp and radio to debunk myths relating to snakes and snakebites.

First-Response
Effective pre-hospital care, first-aid and prompt health care are essential elements to saving lives and reducing complications. But at-risk communities are often isolated from effective treatment and care, resulting in ineffective traditional and herbal treatment options and late hospital admissions. The combination of these factors results in disenfranchised communities whose members have little faith in health systems. Key problems discussed in this session included the widespread use of traditional healers, a lack of effective treatment, including antivenoms, incorrect case management, and impacts to first response and care as a result of the COVID-19 restrictions.

The solutions included:

1. **Improve the availability of practical guidelines:** Standardise effective care by providing guidelines appropriate to the local context and sensitised to all levels of care, including community healthcare workers and volunteers. Guidelines should include clear pathways for patient care and referrals.

2. **Resource treatment and care:** Treatment costs, including antivenoms, should be free of charge to patients, and access to transportation from communities to health facilities for snakebite patients should be subsidised.

3. **Improve treatment, not only antivenoms:** As an alternative to antivenom, which is notoriously difficult to administer, costly, and variably effective, R&D around safer, affordable, more effective snakebite treatment that can be given by lower-level healthcare personnel (and ideally laypersons) should be prioritised. Further, if affordable, accessible, and effective, oral treatment solutions following a bite should be considered to provide more time before antivenom is administered.

4. **Involve community members as key first-responders:** Provide support, information and guidance to community members to understand the effects of snakebite envenoming, and train community personnel in first-aid and referral pathways. Further, engage traditional healers to encourage referral pathways to health facilities.
RESULTS FROM DAY 2

Advocacy and Rights
Civil society and communities play a critical role in driving snakebite advocacy efforts by questioning the status quo, demanding change, mobilising action, seeking accountability from governments and representing the needs of affected communities. Key barriers explored in this session included a lack of funding for CSOs to engage in snakebite advocacy, a lack of accurate data and a lack of capacity in affected communities to claim their rights and advocate to policymakers for change.

Solutions discussed included:
1. **Compensation for SBE-induced deaths and disabilities**: Governments should allocate a specific budget to support snakebite victims and their families. In some countries, human-wildlife compensation schemes have attempted to provide financial support to snakebite victims, but those in need have often not been reached.
2. **Countries should create policy frameworks**: Countries should develop strategy frameworks reflecting ambitions within the WHO snakebite and NTD roadmaps to meet targets and ensure accountability.
3. **Involve snakebite victims in advocacy**: Build the capacity of those directly affected by snakebite to serve as champions for advocacy and awareness of snakebite among communities
4. **Use data as evidence for advocacy**: Strengthen the health reporting systems and undertake routine community-based surveys in order to capture the impact of SBE on affected communities, as a means of advocating for improved policies, strengthening community systems and fundraising.
5. **North-South collaborations**: Sustain pressure on western governments to provide funding for snakebite projects in partnership with CSO coalitions in the global south.

Community-based Research
Some estimates indicate that 70% of snakebite cases are not reported. The numbers go beyond health systems and into communities. Research at a local level can give a clearer picture of the cases, behaviours, responses, attitudes, and beliefs. It can also serve as evidence, guiding the development of policies and programmes shaped to local needs. Key barriers reported included a lack of community involvement in research, inconsistently translating data into advocacy and policy, and under-addressing certain aspects of snakebite research, including the impact on individuals and communities. Solutions included:

Solutions included:
1. **Global research coordination**: Develop a global platform for sharing research findings, avoiding duplication, and ensuring that community research is integrated, monitored and prioritised.
2. **Involving communities in research**: Ensuring communities are active participants in the design, research analysis, monitoring and dissemination of findings. Ensuring research objectives and scope are tailored around them, and making it compulsory for research funding.
3. **Research methodologies**: Developing questionnaires and surveys that are user-friendly.
Community Education

Education can play a vital role in increasing awareness and positively influencing attitudes to snakes, health seeking behaviours and prevention leading to improved outcomes. Stated barriers included that education messages often lack assessments to measure community retention over time, and widespread misunderstanding about snakebite is difficult to change on a large scale basis. Further, that communities are unlikely to adopt education when local culture, beliefs and practices are ignored.

OUTLINE FOR FUTURE COLLABORATION

During Day 2 workshops, participants provided a number of specific recommendations for next steps and future action. All participants emphasised that they believe joining together in a collaborative effort on community engagement would be a valuable and powerful tool to enhance collective action. The most common suggestions included:

- **Virtual platforms**: Easy to use online platforms to exchange ideas, work, troubleshoot and learn from others’ experiences, best practices and risks.

- **Regional cooperation**: Establish regional networks to tackle issues of common concern focused around a clear agenda while reporting progress to a global platform.

- **Community of activists**: Present active community actors speaking as one voice and supporting each other. Design and share tools for community consultations, sensitisation and other activities.

- **Engage in advocacy at all levels**: Design and deliver advocacy campaigns at the community level to raise awareness about snakebite prevention and treatment. Galvanise action and coalition-building at national and global levels to ensure snakebite prioritisation and funding at respective levels.

- **Funding**: Actively seek funding to solve the snakebite problem, prioritise funding and assure that it’s getting to places where it’s urgently needed.

Solutions discussed included:

1. **Linking the health system with community education**: Ensure local health systems are strengthened simultaneously with community education projects to reassure communities of health services with improved health seeking behaviours.

2. **Apply a mixture of communication channels to deliver messages**: Various tools can be effective in delivering education messages, including street plays, theatre, art, animated videos, games, radio, WhatsApp and others.

3. **Use existing community structures**: Build the capacity of those directly utilising community leaders and health workers to disseminate educational messages and tools, thus taking advantage of their strong community standing and reputation.

Participants shared their ideas of how to proceed.
OUTCOMES AND REFLECTIONS
The meeting fostered cross-collaboration and learning about snakebite community engagement that spanned several themes. Despite challenges associated with running a virtual meeting, it ultimately provided important outputs and solutions-based responses to some of the biggest challenges faced by those affected by snakebites in communities. It established a strong foundation for community experts to advocate for snakebite community engagement and work together toward elevating its prioritisation and funding at an international level. We are pleased with the positive reactions to the meeting and hope to connect organisations’ efforts, take forward the promising ideas, and work collectively on snakebite community engagement.

CONCLUSION
The momentum created as a result of the meeting should not go to waste. Solutions drawn up by participants represent the viewpoints of community experts and inform community engagement interventions and responses.

Further, participant recommendations provided a number of next steps, primarily the need for collaboration and advocacy, which can only be realised through a permanent global network. By introducing the opportunity for a permanent network, the meeting inspired participants to realise that their efforts are contributing to a goal that will yield tangible progress towards snakebite outcomes in the longer term. If we reframe the discussion on community engagement by joining forces in a targeted approach which empowers the voices of community experts, we can bring additional legitimacy to advocacy efforts, prioritise important issues on the global level and improve collective efforts to achieve the WHO 2030 snakebite roadmap targets. To achieve this, our next steps will be aimed at ensuring that a permanent network has been further defined, informed by the above recommendations, and funding is secured to run the network’s operations.

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