The SDG Accord

The University and College Sector's Collective Response to the Global Goals

RCSI SCHOOL of POPULATION HEALTH

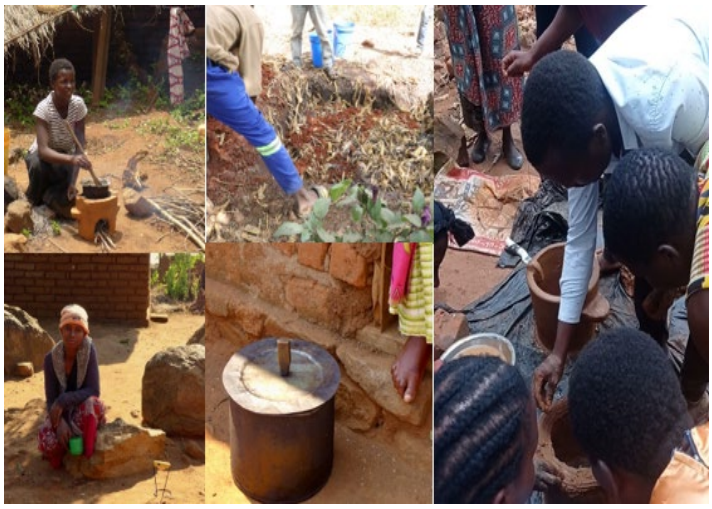

Figure 1 A community-led suite of interventions to address household and ambient air pollution in a local community. Anti-clockwise: Reduced smoke emission from improved local cookstove; movement from using bundle of grass to solar lamps for lighting; potlids to reduce cooking times and train the trainer approach to enhance community capacity building, and ownership and sustainability to effect behaviour change for health.

SDG Accord Case Study

Integration of SDGs in

☐ Institutional governance/strategic level
☒ SDGs in research
☐ SDGs in campus operations
☐ SDGs in curriculum development
☐ SDGs in student engagement activities
☐ SDGs into community activities
☐ SDGs at a whole-institution level

Focus on

☐ Goal 1 - No poverty
☐ Goal 2 - Zero hunger
☒ Goal 3 - Good health and wellbeing
☐ Goal 4 - Quality education
☐ Goal 5 - Gender equality
☐ Goal 6 - Clean water and sanitation
☒ Goal 7 - Affordable and clean energy
☐ Goal 8 - Decent work and economic growth
☐ Goal 9 - Industry, innovation and infrastructure
☒ Goal 10 - Reduced inequalities
☐ Goal 11 - Sustainable cities and communities
☐ Goal 12 - Responsible consumption and production
☐ Goal 13 - Climate action
☐ Goal 14 - Life below water
☐ Goal 15 - Life on land
☐ Goal 16 - Peace, justice and strong institutions
☐ Goal 17 - Partnerships for the goals

Summary:

Smokeless Village Project

Led by researchers from RCSI's School of Population Health, in collaboration with Kamuzu University of Health Sciences in Malawi, the Smokeless Village Project took a community-based participatory approach to addressing household and ambient air pollution in a small village in southern Malawi.

Exposure to harmful pollution from burning wood, charcoal and other unclean fuels used for cooking and lighting contributes significantly to household air pollution.

It is estimated that this pollution leads to 3.8 million deaths per year globally as well as poor health outcomes, such as cardiovascular disease, stillbirth, childhood pneumonia, and high blood pressure.

Exposure is highest in low and middle-income countries and tends to be concentrated in the most disadvantaged communities that do not have access to electricity. In addition, it contributes to climate change through deforestation and increased carbon emissions.

The Smokeless Village Project site – Nsungwi Village – is a 190-household rural farming community located about 40km outside Blantyre in Malawi. Primarily, cooking is done on three-stone fires using firewood and crop residues, and lighting is through battery power lamps and candles. The community is not connected to any electrical grid.

The research team worked alongside the community to identify the most feasible interventions to improve cooking, heating, and lighting in homes and manage household and farm waste.

The community collectively decided on which interventions to prioritise, which included the Chitetezo Mbaula improved cookstove, provision of lids for pots, solar lamps, kitchen windows to improve the draught, composting, a community solar charging point and a number of behavioural interventions that would lead to reduced exposure.

The introduction of interventions through community participation meant that the community made their own choices about what interventions to implement, which has led to meaningful long-term behaviour change and improved health.

Outline the 3 key benefits of integrating this theme:

1. The community's enhanced awareness of the association between the choice of energy and cooking technology (SDG7) and their health (SDG3), resulting in significant community behavioural change aimed at improving health.

2. The benefit of community behavioural change for health can lead to reduced adverse health outcomes such as childhood pneumonia, stillbirths, and cardiovascular disease from exposure to polluting biomass fuel and inefficient cooking stoves. This results in more opportunities for productive working and a reduced economic burden due to health service payments in a community already living on less than 2 USD per day.

3. Finally, the integration of both the Malawi and RCSI teams allowed the teams to situate the community at the centre of co-creating the solution that was most suitable for their context and setting. This enabled the solution to encompass the community's excellent resources (skill, knowledge, capability), led to enhanced self and community efficacy and skill enhancement, and further supported the call for active engagement and involvement in SDG deliberations and interventions.

Outline the barriers or challenges encountered in integrating this theme and how you overcame these:

1. Limited funds to support all the identified solutions: Our vision was to have a total community-level intervention. However, several factors, including, the increasing number of households on a regular basis (cost and increased levels of community pollution) and higher than the estimated cost of interventions due to inflation (funds to cover all households). We

addressed this by employing the participatory principle of trust and open communication with the community about this, which led to the community prioritising the most essential interventions to meet their needs through a participatory decision-making ranking activity.

2. Integrating a total community intervention with varying community dynamics: With the different needs, coming to an agreement with the entire community was critical to sustain the post-intervention phase. A total community engagement activity was held where the researcher openly expressed the fear of backsliding to the status quo and sought the community's opinion to mitigate this. The outcome was the training of seven community members 'change agents' (mixed-gender) to champion the adoption phase. Updates or issues arising within the community every two weeks and any issues of the project who reports any issues to the research team. The effect was an enhanced sense of community efficacy and entire buy-in of all interventions in the community.

3. Balancing best practice research evidence with community socio-economic limitations. Whilst more effective solutions such as electricity and advanced cooking stoves would have been the ideal solution, they were not available to this community. We worked hard to identify what was locally available and affordable to the community that could be easily repaired or replaced. We also had to consider the community's social and cultural perceptions of the interventions. Having open conversations, allowing the community to pilot cookstoves, and witnessing them make the best decisions for themselves was the best approach to resolving the conflict between the best evidence and the best community knowledge.

Please outline your conclusions and recommendations to others (Max 200 words):

The relationship between access to clean, affordable energy and health is clearly established, and the greatest inequalities can be seen in the poorest communities. While the goal of access to clean energy for all by 2030 is likely out of reach at this point, it is possible to ensure that interim solutions implemented are efficient, effective, available, affordable, and meet community social and cultural needs. Implementing solutions that do not meet these basic criteria are drivers of barriers to uptake and adoption and do not lead to long-term sustainable health outcomes. In addition, implementing only one intervention to address health issues related to SDGs 3 and 7, will likely not be effective and does an injustice to the time given by the community to engage. We recommend that interim and long-term solutions promote multiple interventions. Most importantly, the collective community voice must be the centre of all activities in research and intervention programmes aimed at addressing the SDGs. This will ensure community participation moves beyond a tick-box process to a role in co-creating solutions that are effective, feasible, and meet user needs, resulting in sustainable change and improved health.