This compendium of solutions can help the world address key challenges in achieving SDG 3. We hope you will consider partnering with us. For more information, please email us at info@unsdsn.org.
DETERMINING THE IMPACT OF RESERVOIRS OF ANTIMICROBIAL RESISTANCE ON HUMANS

Implementing Partner: ISGlobal

THE SOLUTION

This project will research the role of urban reservoirs in the spread of MDR bacteria, as well as map and define specific recommendations and interventions to tackle this problem at the local level. The project team will compile key evidence-based information related to urban reservoirs, such as water, air, food, transportation, soils, beaches, companion animals, and wild animals (seagulls, pigeons, rats, mice, etc.). Multi-stakeholder workshops will be organized for scientists, policy makers, civil society, and others to make evidence-based, concrete recommendations for action, applicable to different urban contexts. The project overall will strengthen public administration by raising awareness and improving management capacity to face the AMR challenge.

THE NEED

Antimicrobial resistance (AMR) is one of the most important public health challenges that our society is currently facing. It is estimated that by 2050, 10 million people will die of infections caused by multi-drug resistant (MDR) pathogens. The emergence of resistance is due to the misuse of antimicrobial agents in humans, animals, and the environment. Despite the critical nature of this problem, few actions have been recommended to public authorities, especially in cities, where there are many reservoirs for MDR bacteria.
**IMPACT**

This project will:
1. Define urban reservoirs of MDR bacteria and build knowledge on relevant transmission routes in urban settings.
2. Analyze and, if needed, design further studies on the transmission of MDR bacteria from reservoirs to humans.
3. Translate the evidence into concrete actions for policy makers, developed through participatory approaches.
4. Design of an AMR Urban RoadMap to be used for implementation of a pilot project.

**ALIGNMENT WITH GLOBAL OBJECTIVES**

Both the UN and the EU recognize AMR as a global public health challenge which affects all countries no matter their level of development, and requires coherent and comprehensive global response.

**PROJECT IMPLEMENTATION**

**Phase 1: Elaboration of materials**
Based on a previous literature review on AMR in urban areas, the project team will identify best practices to respond at the local level.

**Phase 2: Multi-Stakeholder Workshop**
Decision-makers and stakeholders with knowledge of urban contexts will discuss and design measures to block AMR transmission. The results will become the foundation of a pilot project (Phase 3) to reduce transmission.

**Phase 3: Pilot Implementation**
With technical assistance from ISGlobal, the AMR Urban RoadMap recommendations will be put into practice in one municipality and evaluated for success at reducing AMR transmission. If successful, the RoadMap would be scaled-up and replicated in different geographical contexts, including cities from developing countries with the involvement of development cooperation agencies or UN System.
THE SOLUTION

A pilot platform for the integral care of patients with Chagas Disease (CD) was set up in Bolivia in 2009. The Platform offers a model of healthcare, adapted to Bolivia’s national health policies and strategies. The model includes medical diagnosis and treatment of Chagas, the training of health professionals and researchers, and education and outreach activities targeted to at-risk communities.

The solution has proven effective at tackling CD, and is ready to be adapted and scaled-up across different epidemiological and geographical settings. The platform could be further adapted to address other NTDs. In the near-term, we aim to take this solution to other Latin American countries where CD is endemic, increasing the diagnosis and treatment of affected patients, and looking for partners and funders.
**IMPACT**

A successful pilot in Bolivia trained 1,616 health professionals and led to the treatment of more than 26,227 patients from 2010 to 2015.

**ALIGNMENT WITH GLOBAL OBJECTIVES**

Many organizations advocate for stronger support to neglected tropical diseases (NTDs), and Chagas in particular. NTDs are explicitly referenced in the Sustainable Development Goals (SDGs) under target 3.3. The World Health Organization (WHO) recommends incorporating the diagnosis and treatment of Chagas Disease into National Health Systems in affected countries.

**PROJECT IMPLEMENTATION**

**Part A:** Implement NTD platforms, providing continued training and support to practitioners, follow-up activities, and monitoring and evaluation programs. ISGlobal is implementing this activity, together with the CEADES Foundation. Local institutions, Ministries of Health, non-profit institutions, philanthropic institutions, academic organizations, and community organizations will be involved in the development and implementation as well.

Year 1
1. Adapt the platform model to the specific intervention area
2. Implement local pilot project (i.e. introduce the platform in one health center)
3. Train healthcare workers
4. Disseminate information to the community to raise awareness (see Part C)
5. Evaluate implementation, validating the assumptions made when adapting the Bolivian experience to another geographic context

Year 2
1. Develop a regional strategy based on the results from year one (the “Xstrategy”, see Part B)
2. Train larger cohorts of healthcare
3. Disseminate information to the community to raise awareness (see Part C)
4. Conduct operational research to draw conclusions that will help improve treatment and prevention
5. Evaluate implementation, making recommendations to improve the offerings in Year 3

**Part B:** Implementation of the “Xstrategy,” a tool that offers continual training and support to healthcare workers, and includes an evaluation component to ensure success. Local healthcare staff, ideally in partnership with community members, can use the tool to plan effective interventions.

**Part C:** Implementation of the “¡Pasa la Voz!” strategy. In this part the health community, together with civil society members, develop educational materials to disseminate information to the community, and train community members to act as health information agents, increasing prevention, diagnosis, and treatment in at-risk communities.
TOOLS TO INTEGRATE HEALTH INTO URBAN AND TRANSPORT PLANNING

Implementing Partners: ISGlobal, SDSN, Municipal Governments

THE SOLUTION

ISGlobal’s Urban Planning, Environment and Health Initiative (UPEH) has been working with local and regional governments to develop tools that facilitate the integration of health criteria into urban and transport planning processes and policies. We catalyze collaboration and action across sectors to achieve impact in society and policy. This project proposes to further develop our work and offer training to SDSN network members on how tools such as Health Impact Assessment (HIA) and our Indicator Checklist tool for Healthy Urban Planning can be tailored and implemented at the policy and technical levels.

The beneficiaries of this project are urban communities, as the application of HIA and other tools allows planners and citizens alike to analyze diverse urban scenarios and their impacts on health. This, in turn, can lead to more informed policy making and people-centered strategic planning of urban environments, contributing to the achievement of the SDGs.

THE NEED

Emerging evidence suggests that urban and transport planning contributes to considerable variation in the levels of environmental exposures that are associated with health effects. Thus, well-designed, efficient cities and transport systems are essential for citizens to thrive. However, current transport development has been less than optimal, emphasizing efficiencies of time, speed and distance, while creating and exacerbating human exposures to injury, sedentary lifestyles and illness.
IMPACT

ISGlobal has been developing research, frameworks, and policies on urban and transport planning since 2012, with the publication of a report on the health impacts of Barcelona’s bicycle-sharing program and numerous Health Impact Assessment (HIA) studies on urban transport, particularly in the greater Barcelona metropolitan area, through the Urban and Transport Planning Health Impact Assessment (UTOPIA). This methodology is now being applied to other cities such as Bradford, UK, and to specific issue areas, such as port-related urban air pollution. These assessments apply current knowledge on health directly to the specific contexts for which policies and programs are developed by local governments. Beyond making recommendations based on health impact models, HIA can aid policymakers by defining indicators for program monitoring and evaluation. ISGlobal has also supported the WHO on the development of HIA tools and offered trainings to government officials on HIA.

ALIGNMENT WITH GLOBAL OBJECTIVES

Health is explicitly addressed in SDG 3, though it is present in almost every goal. SDG 11 clearly calls for trans-sectoral and systemic approaches that require both a comprehensive vision and local action in urban contexts, paying direct and urgent attention to the fundamental link between the health of the human population and the health of the planet.

PROJECT IMPLEMENTATION

Our proposed project will conduct a HIA and adapt the checklist tool to 2 different local-regional contexts, in partnership with the SDSN network. Through an iterative and participatory process, we will work with partners to understand the local scenarios, and adjust the tool as necessary, for example, by adapting the indicator lists for different urban densities or adding different components on housing.

Our overall methodology uses interactive and collaborative approaches that:

I. Help to develop shared language across sectors.
II. Encourage the development of communities of practice for future work.
III. Can be adapted and applied to policy, technical, or community users.

The type of HIA conducted depends in large part on type and quality of data available. The first step will be to identify and select the interested cities, and then review the available data and scenarios to be evaluated. Based on this first phase, the appropriate HIA methods, qualitative, quantitative, or mixed, will be selected and applied.

The checklist will be adapted by working closely with the local governments in the selected cities. This entails identification and review of the appropriate planning processes and level of action.
THE SOLUTION

Science Shops involve civil society members, students, and researchers, who build synergies between social issues and scientific inquiry. Science shops also facilitate citizen-driven research projects, giving engaged, knowledgeable civil stakeholders a co-researcher role in shaping scientific projects. This is one way to facilitate transformation towards more useful and actionable applied knowledge. This project is distinctive, as it remains unusual to find civil society and academic institutions in regular contact, or researchers who regularly create partnerships with civil society groups.

Science Shops promote bottom-up, demand-driven research, and can address both basic and applied research in any scientific discipline. ISGlobal’s Science Shops focus specifically on complex social problems related to health and environmental issues. They are especially effective at addressing social inequities by addressing the unmet or unknown needs of vulnerable groups both locally and internationally.
IMPACT

Our first pilot project responded to a need identified by an association of immigrants, and addresses the barriers to healthcare for Chagas disease (CD). A second project from the Barcelona community evaluates the psycho-social impacts of a bicycle course for women over 50 years old.

ALIGNMENT WITH GLOBAL OBJECTIVES

Science Shops are aligned with the Sustainable Development Goals (SDGs), in particular SDG 3 (Ensure healthy lives and promote well-being for all at all ages), 5 (Achieve gender equality and empower all women and girls), 10 (Reduce inequality), and 11 (Make cities and human settlements inclusive, safe, resilient and sustainable).

PROJECT IMPLEMENTATION

**Phase 1: Preparation:** In the first part of the project, the team identifies a research topic. This is accomplished through meetings with civil society organizations and researchers, to find areas where social demands are aligned with scientific endeavors. A scientific committee composed of all direct stakeholders is also assembled to validated the research questions.

**Phase 2: Design and Implementation:** A research protocol is co-designed and research implemented in a participatory way, whenever possible.

**Phase 3: Communication and Impact Evaluation:** Results are always channeled back to society through publication of a report and public event. Results are also published in scientific journals.
GOOD HEALTH AND WELL-BEING