Premature babies are vulnerable to infections and sepsis remains a leading cause of death. Infections with resistant bacteria has become a major - but still neglected - threat to newborn health globally.

Here a newborn premature baby at the Neonatal Intensive Care Unit at Biak Hospital, Indonesia. This hospital has implemented several actions on antibiotic resistance. And after trainings in infection prevention and control, the neonatal mortality decreased significantly, including for the low-birth-weight babies.

This is why ReAct exists.
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From cover
Nurse Dorce works at the Neonatal Intensive Care Unit at Biak Hospital, Indonesia. She has worked with doctor Windhi one of the pediatricians in YOP, ReAct's partner.

ReAct Interview: Nurse Dorce, Indonesia: Treating small patients with much love and infection prevention - a success story

Photos from Biak: Rifan Oktavianus, Indonesia

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<td>ABR</td>
<td>Antibiotic resistance</td>
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<td>Africa CDC</td>
<td>Africa Centres for Disease Control and Prevention</td>
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<td>AMR</td>
<td>Antimicrobial resistance</td>
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<td>ASPIC</td>
<td>Antibiotic Stewardship and Prevention of Infection in Communities</td>
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<td>CABI</td>
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<td>CAP</td>
<td>Community Advocacy Platform</td>
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<td>COVID-19</td>
<td>Coronavirus disease 2019</td>
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<td>CGIAR</td>
<td>Consultative Group for International Agricultural Research</td>
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<td>CSE</td>
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<td>CSO</td>
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<td>EU</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>G20</td>
<td>Group of 20</td>
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<td>Global Action Plan</td>
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<td>GARDP</td>
<td>Global Antibiotic Research and Development Partnership</td>
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<td>GLG</td>
<td>One Health Global Leaders Group on Antimicrobial Resistance</td>
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<td>ICARS</td>
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<td>IDEA initiative</td>
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<td>IFMSA</td>
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<td>IPC</td>
<td>Infection Prevention and Control</td>
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<td>LMICs</td>
<td>Low- and Middle-Income Countries</td>
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<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>MDA</td>
<td>Mass Drug Administration</td>
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<td>MEP</td>
<td>Member of the European Parliament</td>
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<td>MoU</td>
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<td>NAP</td>
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<td>NGOs</td>
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<td>OIE</td>
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<td>Product development partnership</td>
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<td>RBM</td>
<td>Results-based management</td>
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<td>Sida</td>
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<td>TB</td>
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<td>UICC</td>
<td>Union for International Cancer Control</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<td>WAAW</td>
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<td>Water, Sanitation and Hygiene</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WHO EB</td>
<td>World Health Organization Executive Board</td>
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<td>YOP</td>
<td>Yayasan Orangtua Peduli (Concerned and Caring Parents Foundation)</td>
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In 2021, ReAct was active in many different settings addressing antibiotic resistance (ABR) both on grassroots levels and on the highest political level.

ReAct has supported a number of countries to develop and implement their National Action Plans (NAPs). ReAct has engaged and been sought after by government line ministries and has established itself as experts on Antimicrobial Stewardship (AMS) in the region. Throughout 2021, ReAct Africa supported AMS training in Kenya, Zambia, Tanzania, Egypt, Nigeria, Liberia and Sierra Leone. In addition, a new partnership was formed between ReAct and the International Centre for Antimicrobial Resistance Solution (ICARS) and a joint project was established for the next 2-3 years with the aim to develop and disseminate practical context-specific guidance and applied tools that will support NAP implementation in sub-Saharan Africa.

In Latin America, with the objective to promote community participation in AMR NAP with One Health approach, ReAct Latin America co-hosted the Latin American regional conference ‘Comunidades Empoderadas frente a la RAM’ (Empowering Communities against AMR in the context of COVID-19) together with the Pan American Health Organization (PAHO) and the Global Health Consortium of Florida International University. The conference also provided valuable input to PAHO’s One Health policy and called for governments’ commitments to involve communities and civil society in the NAP implementation. The Meeting concluded with the Declaration of Empowered Communities, which was translated into English and Portuguese, with a hundred endorsements from 11 Latin American countries.

Despite various limitations due to COVID-19, ReAct carried out activities for movement building and mobilization at subnational and local level in many different ways and in different parts of the world. Movement building took place together with civil society putting pressure at WHO and other institutions through the Antibiotic Resistance Coalition (ARC) and supporting future ABR champions among students and youth regionally and globally. ReAct held the global student competition Innovate4Health online where we successfully engaged over 90 students on 29 teams over five months to develop further their innovation proposals to address emerging infectious disease threats, from COVID-19 to AMR. ReAct also helped to support the organizing of the first Global Youth AMR Summit organized during World Antimicrobial Awareness Week (WAAW) in November, at which selected Innovate4Health teams had the opportunity to present.

In 2021, ReAct continued policy and advocacy work through regular landscape monitoring, collaborative intel sharing and strategic discussion process across the network. ReAct actively engaged wide stakeholders and provided a collective voice for civil society, and particularly for LMICs, during the process of establishing a global governance mechanism on different fronts and in various media contexts. One silver lining during the 2021 World Health Assembly (WHA) interventions was the increasing number of Non-State Actors taking the floor to make statements specifically on AMR including
new stakeholders in the field such as the Union for International Cancer Control (UICC). ReAct has focused on mobilizing in particular the cancer community, over the past years, and is therefore very encouraged to see the field of actors concerned about AMR grow. In Asia, ReAct initiated a Community Advocacy Platform (CAP) as a complement to the Antibiotic Smart Communities project, in part to disseminate the developed toolkits and strategy documents. We held scoping meetings to bring together civil society and Academia who were interested in community mobilization and advocacy for public health issues.

Through the Antibiotic Resistance Coalition (ARC), ReAct called on the WHO Executive Board (EB) and the WHA for the overdue Five-Year Review of the WHO Global Action Plan (GAP) on AMR and for a Quadripartite AMR global governance system. Subsequently, we successfully negotiated an ARC roundtable providing input to the WHO’s Evaluation Department over its Comprehensive Review of its GAP on AMR, despite the terms of reference initially did not include civil society. The coalition’s inputs were largely carried into this final report’s findings, laying the groundwork for this coming year’s work to hold the WHO more accountable.

In 2021, promising developments in food and environment sectors have provided ReAct opportunities to advance a One Health approach to tackling AMR. The UN Environment Assembly called upon UN Environment Program (UNEP) to develop a report on the environmental dimensions of AMR, a process in which ReAct played a significant role. The scope of our work expanded markedly in 2021 into the environment and ReAct supported an expert consultation and ended up serving on the core work group for the UNEP global report on the environmental dimensions of AMR.

During 2021, ReAct was active in articulating and promoting a more needs based research and development (R&D) system. The report “Ensuring sustainable access to effective antibiotics for everyone, everywhere” was launched and has served as a basis for dialogue and advocacy efforts on many different platforms. To this day, ReAct remains one of few actors in the AMR field which advocates for creating a system that by design serves the health needs of everyone - rich and poor. Against the background of the current global inequitable access to COVID-19-vaccines, we believe that voices that argue for such a new approach are needed more than ever to highlight the needs of LMICs to the funders that are most likely to make the necessary investments in antibiotic R&D. To take on the challenging task to both explain how an “end to end” approach to innovation would work and push for public needs driven solutions to fix the broken R&D system will continue to be a prioritized task for ReAct in the coming years.
#1 National Action Plans on AMR

Strategic objective 1

Countries develop and implement National Action Plans with respect to sustainable access to effective antibiotics, that are inclusive of civil society, local community views and based on situational analyses with ReAct’s support.
In 2021, the national and global response to the COVID-19 pandemic continued to demand significant attention from governments - in many instances to the detriment of AMR NAP implementation. Even before the pandemic, implementation of NAPs was challenging in most Low- and Middle-income Countries (LMICs) due to a number of reasons including the lack of technical expertise, finances, political will and surveillance data; weak coordination among relevant ministries; and limited public understanding of the issue. Some NAPs are approaching expiration and renewal, without ever having been adequately financed in the first place. Most of the financing of activities that have occurred, have been guided more by donor preferences and less by countries’ prioritization and needs. The COVID-19 pandemic threatened to water down the progress made in the AMR in Africa which currently stands at 39 countries with NAPs in Africa. On a positive note however, many African countries have intensified Water, Sanitation and Hygiene (WASH) and Infection Prevention and Control (IPC) interventions in their COVID-19 response protocols, which added value to AMR containment efforts. On the flip side, the African continent continued to suffer deeply from global health inequity, lagging in COVID-19 testing, as well as both routine vaccination for children and access to COVID-19 vaccines, despite policies on pandemic preparedness made available from the support of World Health Organization (WHO) and Africa Centres for Disease Control and Prevention (Africa CDC).

ReAct has been adaptive to the impact of COVID-19 on LMICs’ agendas and on the AMR response. In connection to the evolving COVID-19 landscape, ReAct supported countries to identify opportunities through the current programs to address broader issues of the pandemic and antibiotic resistance (ABR) by promoting vaccinations, supporting action plans for COVID-19 cognizant of antibiotic resistance, as well as series of capacity building activities through webinars and workshops on AMR and COVID-19. In all interventions and training activities, ReAct has considered gender equality and made efforts to balance gender representation from participants. ReAct’s efforts also focused on advocacy around issues of sustainable access given that supply chains were disrupted and essential antibiotics were not available in several countries as their stockpiles were depleted due to closed borders.

Supporting AMR National Action Plans (NAPs) in Africa

Building upon technical expertise and a wide network in Africa, ReAct is uniquely positioned to influence policies and practices at country and regional level. ReAct Africa’s activities are anchored within the countries’ AMR NAPs and the mandates of the World Organisation for Animal Health (OIE), WHO, FAO, as well as the Africa CDC framework for addressing AMR which countries have endorsed. Over the past few years, ReAct has supported a number of countries to develop their NAPs, including Ghana, Zambia, Kenya, Tanzania, Zimbabwe, Nigeria, Tanzania and Malawi.

In 2021, ReAct focused support on Kenya and Zambia in developing ‘Stewardship and Infection Prevention and Control’ programs. These two countries were among the very few in Africa that continued NAP implementation efforts during the pandemic. In both Kenya and Zambia, we were also sought after more often, having Governments, organizations, institutions, hospital networks requesting input from ReAct more broadly. ReAct has engaged and been sought after by government line ministries and has established itself as experts on Antimicrobial Stewardship (AMS) in the region. Throughout 2021, ReAct Africa supported AMS training in Kenya, Zambia, Tanzania, Egypt, Nigeria, Liberia and Sierra Leone.

Important momentum at county level in Kenya

In Kenya, following on the baseline studies completed in 2020, the first quarter of 2021 witnessed the historic signing of an Memorandum of Understanding (MOU) for AMS support in Makueni County, Kenya. The MOU was signed between ReAct Africa and Makueni county government for the County’s AMS program. This has been part of the work to support the implementation of the Kenya NAP and was an important step in the sustainability of the ReAct Africa interventions in the county which has set an overall objective of establishing AMS programs within the county’s health facilities and strengthening IPC programs by extension. The final baseline report was presented to the county health management team (CHMT) during the MOU signing event. The baseline report has continuously assisted in providing a reference point for monitoring change and prioritising resources and activities in the county.
Government buy-in is important for the success and sustainability of the implementation of the AMR NAPs. The sharing of the results from the baseline study carried out in 2020 during the MOU signing event in Makueni County seized timely and great advocacy opportunities towards decision makers. In follow-up, the county minister requested that the AMS training be expanded to the other facilities that were not targeted in the intervention and also further included hospital administration in the training. The training of the medical superintendents and the other health facilities was conducted in the second and third quarters of 2021. The series of training helped to set a foundation for the medium to long term outcomes. These engagement and capacity building activities created awareness on AMR and secured buy-in and support from the administrators working in Makueni county public health facilities for the AMS and IPC interventions. One of the great outputs from the training was that the medical superintendents agreed that, through the project, an antibiogram for the county referral hospital will be established and this would act as a referral point for the entire county. Despite the challenges presented by the ongoing pandemic, these interventions resulted in improvement of some IPC structures (e.g. hand washing and waste segregation) in all the health facilities in Makueni County. Strengthened IPC especially in performing cesarean sections resulted in reduced consumption of Ceftriaxone post-surgery and improved tracking of hospital acquired infections.

Formalizing engagement with Zambia National Public Health Institute
In Zambia, the political landscape has stabilized towards the end of the year due to the elections that took place in 2021. There was great momentum for AMS programs to support NAP development. In Zambia, an important advocacy step was the formalizing and renewing of the MoU on supporting the implementation of Zambia’s Multi-sectoral NAP on AMR. The MoU was signed between ReAct Africa and the Zambia Antimicrobial Resistance Coordinating Committee (AMRCC) through the Zambia National Public Health Institute (ZNPHI). The renewed MoU extended support to the AMRCC and the Zambia Strategic Response Program Against AMR (ZSRA-AMR). This signaled an important advocacy step in Zambia which helped move forward the ReAct strategic medium and long-term outcomes as governance issues are a key prerequisite for sustainability of interventions.

AMS support at facility level in Zambia
AMS support activities continued for the target health facilities in Zambia. ReAct Africa provided technical support during facility visits while antibiotic charts were launched and were being piloted in selected wards in Ndola Hospital. Furthermore, in advancing AMS efforts in Zambia, ReAct supported the development of antibiotic guidelines for the University Teaching Hospital (UTH), in collaboration with the University of Maryland. The guidelines were develo-
ped using local data that were context-specific and relevant to enhancing behavior change in rational medicine use. The UTH antibiotic guidelines were officially launched in Lusaka in Q4 2021 and also featured an online mobile application version to increase accessibility and user friendliness for a diverse range of stakeholders across different geographical areas in the medium to long term. There has been wide involvement of various stakeholders in Zambia in the AMS guidelines development and approval. At Lusaka Trust Hospital, a workshop for adapting the UTH Antibiotic Guidelines was organized and noted a major gap in AMS that laboratory data was incorrectly analyzed to formulate the institution’s antibiogram. Recommendation was followed to reanalyze laboratory data and complete remaining sections of the guideline for formal adoption at the facility.

Supporting State Action Plans in India
In 2017, India released its National Action Plan against AMR. As health comes under the purview of state governments, and the fact that each state has differences in terms of need, resources, mechanisms of working, the next step was to formulate the State Action Plans (SAPs) in various states. Kerala (in 2018) was the first state to come up with their SAP, followed by Madhya Pradesh (2019) and Delhi (2020). Following that, more states have been in the process of developing their own SAPs. ReAct played an important catalyst role in supporting the formulation and operationalization of the state action plans, ever since we started working in Kerala. In this regard, in 2021, ReAct organized consultation meetings in Puducherry, Telangana and Meghalaya, with an aim of supporting the states to develop their respective SAPs. We also did a qualitative study by interviewing key informants from these three states, to assess the appetite for sub-national action plans. Besides, ReAct has partnered with the World Animal Protection India to organize an online meeting to discuss the progress of the SAPs amidst Covid-19 disruptions.

In 2021, three workshops were facilitated by ReAct in the states of Telangana, Meghalaya, and Puducherry, in support to frame their own AMR SAPs. We had tied up with local civil society and academic groups to ensure good state-level ownership for the activities. These consultation meetings were held on:
• 7th October in Puducherry, in collaboration with Pondicherry Institute of Medical Sciences;
• 18th October in Hyderabad, Telangana in collaboration with Superheroes against Superbugs;
• 22nd October in Shillong, Meghalaya in collaboration with Nazareth Hospital Shillong, and Society for Action on Community Health (SACH)

The participants of these meetings were from government agencies, civil society groups, professional organizations and academic entities and were drawn with a One Health approach in mind. The engage-
ment at the meetings, particularly the participation during the group discussions, was indicative of the promising level of interest that is present among the people at the ground level to tackle AMR. In all three states, government support was promised towards the formulation process of SAPs. Several of our local partners were enthused about the idea and the results were evident during the World Antimicrobial Awareness Week (WAAW). Major landmarks in the city of Hyderabad (capital of Telangana) were lit up in blue by our partner organizations on 24th November 2021, as part of the ‘Go Blue’ campaign of the WHO.

In addition, ReAct conducted a ground level study in the State of Telangana, Meghalaya, and Puducherry through in-depth interviews of key stakeholders. The study aimed to ascertain the current AMR situation in these states and the scope for a state action plan on AMR. Preliminary analysis of the data revealed several ‘entry-points’ for AMR action in the states. There are several labs generating good quality microbiology data. But such data is neither compiled nor the information is fed back to clinicians. The issue of AMR is perceived as a lab-based problem and hence there is little holistic action on the same.

**Reflection**

The meetings identified AMS, hospital infection and prevention and control, compilation of routine microbiology data generated from laboratories and curbing over-the-counter antibiotic sales as ‘low-hanging fruit’ for AMR containment in the concerned states. There is a need to invest more into hospital infrastructure, especially on creating microbiology and infection control facilities. Farming and environmental dimensions of AMR were deemed as concerns as the capacity available in the sectors for AMR action was low and the issue is often seen as a medical problem. There was a consensus that any intervention should be able to look at behavioral change and regulatory aspects; and not just focus on training. There is also a need to create incentive structures for farmers and others, for effective change in behavior. A state action plan on AMR was seen as one of the most important steps in AMR containment.
Antibiotic Smart Communities (ASC)
Community engagement has a critical role in developing a sustainable solution to combat AMR and is especially relevant in the context of LMICs. Since the launch of the Global and National Action Plans, the focus has been at international and national levels, and the importance of designing strategies to engage local communities has been minimal. Therefore ReAct’s community approach, based on experiences of working with LMIC communities, can be useful when more National Action Plans are operationalized in other LMICs, especially for community engagement and forward momentum.

To develop a model for community engagement, ReAct has piloted an Antibiotic Smart Community (ASC) project in a small rural area in the state of Kerala in India. The ASC project intended to develop templates of social and behavioral change action on AMR in the community through small interventions and community dialogues. It also aims to develop an indicator framework for determining the “antibiotic smartness” of a community.

Developing the indicator framework through a consultative process
The indicator framework was proposed as an advocacy and accountability tool that can help in iterating the AMR NAP interventions based on ground-level feedback. In 2021, piloting of the indicator framework helped in recognizing priority areas and developing further initiatives towards generating community ownership and thereby antibiotic smartness in the community.

Community engagement via Antibiotic Smart Communities - a ReAct pilot in a small rural area in the state of Kerala in India. Here a demonstration of a soakage pit and composte pit.

Photo: Haifa Ali
Based on multiple expert consultation meetings, a framework with a list of 34 indicators and their measurement methodologies was prepared internally. To further consolidate this, a prioritization exercise was undertaken with assistance from 20 international experts (representing WHO, UNICEF, UNEP, government agencies, civil society groups and Academia). Based on the feedback from the experts using multiple criteria, the indicator framework was condensed into 15 data points. Each indicator has a specific rationale and is accompanied by a measurement methodology. All the indicators are equally weighted and are divided into 3 scoring buckets based on performance of the community being evaluated. A handbook for communities applying the indicator framework was also designed as a part of the project.

**Piloting of Antibiotic Smart Community (ASC) indicator framework**

The indicator framework developed by ReAct Asia Pacific was piloted in the ASC project site in the state of Kerala, India; a score of 34 out of 45 was obtained. The piloting was done with the help of field workers and women’s self-help groups, with active support from the local self-government institution. The aim was to understand the feasibility and ease of application, besides benchmarking the community. It has enabled us to identify the areas to be prioritized - such as educating farmers on use of pesticides and proper waste disposal. This has also given an opportunity to the local stakeholder groups to own the AMR action and understand the collective challenges that their community faced.

**Village-level stakeholder meeting and formal inauguration of the ASC project**

The whole community in Mallapuzhassery panchayat of Kerala, India came together for the village level stakeholder meeting for the ASC project in October 2021. At the stakeholder meeting, leaders and representative members from the Panchayat (local governing body), Kudumbashree (local women’s group) and Accredited Social Health Activist (ASHA) workers (peripheral healthcare workers) were present. The event also transpired as a ‘stamp of approval’ from the community leaders before beginning an intensive data collection and implementation phase.

**Colour.Comm - a design sprint for public health students for community education tools on AMR**

In 2021, ReAct Asia Pacific organized a design sprint for students of public health, to get more innovative ideas on community engagement and to develop tools for community mobilization on AMR. It was open for post graduate students of public health, preventive and social medicine residents as well as the students of veterinary public health. The teams came up with several communication tools such as Android mobile applications, short videos, folk songs, merchandise etc. Some of these tools have been used in our ASC project implementation efforts. The preparatory workshops on incorporating design thinking concepts and relevance of target-oriented communication saw considerable participation.
One Health approach in AMR NAP in Latin America

In October 2021, ReAct co-hosted the 6th International Congress on Socio-environmental Health and 3rd Intercontinental Meeting Mother Earth, One Health, which brought together representatives of civil society organizations (CSOs), academia, human and animal health professionals, authorities, food producers and consumers, from Argentina, Bolivia, Colombia, Ecuador, Peru, Chile, Paraguay and Guatemala. The event concluded with a Call to Action One Planet, One Life, One Health: People’s Hope for Today and Tomorrow. Strategically framed within the WHO resolutions, the call urged governments of the Latin American region to adopt the WHO guidelines on the use of medically important antimicrobials in food-producing animals, ban the use of antibiotics as growth promoters, and replace the use of antibiotics with alternative technologies. This called on the governments to:

- Promote the appropriate use of antibiotics in human health and animal husbandry.
- Adopt strong regulatory measures to address the misuse of antibiotics and allocate adequate resources to support a shift to sustainable agricultural practices.
- Strengthen small and medium-sized production units, which feed the majority of humanity.
- Implement the AMR NAP with a multisectoral approach.

ReAct-PAHO conference: Empowering Communities against AMR

With the objective to promote community participation with the One Health approach in AMR NAP in the context of COVID-19, ReAct Latin America co-hosted the Latin American regional conference ‘Comunidades Empoderadas frente a la RAM’ (Empowering Communities against AMR in the context of COVID-19) in November 2021, together...
with the Pan American Health Organization (PAHO) and the Global Health Consortium of Florida International University. The conference dedicated one day to discuss PAHO’s One Health policy, raising the voices from scientists, communities, indigenous peoples and social movements organizations at the regional level. The three-day conference outlined three thematic areas:

- interactions between COVID-19 and AMR in relation to NAPs;
- community responses to COVID and AMR;
- community proposals for NAPs in relation to AMR.

The conference also featured cross-cutting themes including food and environment, communication, education and arts.

Ahead of the conference, ReAct and PAHO called for submission of storytelling about infections, bacterial resistance and antibiotics. The stories were reviewed and selected by a committee composed of several Latin American organizations. Three selected stories were presented at the conference and were shared on the social networks and portals of ReAct Latin America and PAHO.

The Meeting concluded with the Declaration of Empowered Communities, which was translated into English and Portuguese, with a hundred endorsements from 11 Latin American countries. Among reflections and proposals, many called for more dialogues and cooperation between community networks, academic sectors, artistic collectives, state agencies and international organizations. It also called on Latin American governments to “take the good examples of community practices, the health system and research centers and promote them at local and national level, through action plans on AMR”. This conference also received global attention and was circulated through the WHO AMR Newsletter (4th issue, December 2021).

**Connecting global- to country-level efforts**

At the global level, ReAct engaged with the World Bank and was invited to provide feedback and suggestions on tools for NAP implementation for the upcoming revision of their landscape analysis of tools (the first version also featured the ReAct Toolbox). This has also led to initial discussions with the World Bank about possible collaborations in 2022 for joint knowledge products and webinars. ReAct also made a targeted presentation on global funding landscape and opportunities for NAP funding at the ReAct Africa-South Centre Conference where they got the opportunity to directly interact with the WHO, World Bank and the Fleming Fund in the same panel.

In 2021, ReAct also coordinated a panel of reflections on AMR NAPs as a part of civil society consultation for the Comprehensive Review of the Global Action Plan on AMR (GAP). Building on this work, we put together a policy briefing on the Comprehensive Review on the WHO GAP on AMR, which was flagged by South Centre to the UK mission, as well as by Third World Network for the Malaysian WAAW event. As these examples illustrate, working through the Antibiotic Resistance Coalition (ARC) members, we have amplified our policy efforts through their outreach to Member State governments. In lead up to the 74th World Health Assembly, we also provided a briefing to South Centre Member States on the urgent need to avoid AMR as a pandemic by developing and implementing NAPs on AMR.

From chairing Session 3 at the Center for Science and the Environment’s Africa-Asia workshop on “Political commitment and funding to contain AMR” to supporting the MSF’s Access Campaign on identifying intersections between ABR and other MSF field work (Tuberculosis, diagnostics, vaccines, and COVID-19) at the country level, ReAct has drawn attention to opportunities for tackling AMR and COVID-19 together, amidst healthcare systems and economies that have been stretched by the toll of COVID-19. ReAct Europe also presented at MSF internal meeting on “Humanitarian Actors action on AMR” (co organized by MSF, ICRC, FIND, PATH).

Building on our prior work with United Nations Conference on Trade and Development (UNCTAD) on innovation issues, we also provided review of UNCTAD’s synthesis paper in November 2021 on local production of antibiotics in East Africa. ReAct offered feedback on the FAO Tripartite Consultation on the One Health Assessment Tool for AMR-relevant legislation and provided input through UN Environment Programme (UNEP) for the One Health Global Leaders Group on AMR (GLG) on AMR Financing Note, highlighting the inadequacy of funding for NAPs.
**The ReAct Toolbox – supporting capacity building and implementation of NAPs**

Through the Toolbox, ReAct further supports countries and implementers in their work on AMR. With more than 100 freely available pages of information, more than 500 tools, and numerous highlights of ongoing initiatives, the Toolbox is an integral component in ReAct’s efforts under Strategic Objective 1. The Toolbox also continues to be a useful resource for catalyzing and sustaining partnerships, and as a concrete resource to engage and support civil society organizations, academia and student champions. In continuing efforts to reach as many countries and implementers as possible, the following activities were conducted to improve content and accessibility:

- The Toolbox was promoted through ReAct’s global and regional communication channels, with more than 50 posts in social media and newsletters, and through targeted outreach using ReAct’s internal stakeholder and funder mapping. It was also highlighted at events and meetings such as at the AMS workshop in Makueni county, Kenya, organized together with the Ministry of Health (MoH) Kenya, at Uppsala Health Summit, Managing AMR through Behaviour Change, and to around 100 students at the ASPIC club annual meeting arranged by ReAct Asia Pacific.

- In addition to routine maintenance and content updating, close to 200 external resources were reviewed, and more than 40 new tools and examples of ongoing initiatives were added to the Toolbox. Website maintenance took more time than anticipated this year as several of the major international institutions updated their homepages, including WHO and OIE, which led to a large number of broken links to key resources.

- New icons were created to update the Toolbox appearance, and procurement for and drafts of a set of infographics were done.

- Work under the partnership with International Centre for Antimicrobial Resistance Solutions (ICARS) was initiated, which also includes a close collaboration on the Toolbox between ReAct Europe and ReAct Africa. For the Toolbox component of this project activities focused mostly on strategic discussions, and starting to map the relevance of current Toolbox content against ongoing initiatives in Zambia. Other activities included analysis of Toolbox user data for a baseline understanding of the user base in sub-Saharan Africa, and preparing cases and questions for upcoming discussions on how the Toolbox is used and what tools are sought after.

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Our efforts led to several high-profile mentions as well as inquiries for materials or collaboration. For example, the Toolbox was featured in the World Bank Landscape Analysis of Tools to Address Antimicrobial Resistance, and ReAct was also invited to provide feedback on tools for the upcoming update of this analysis. ICARS highlighted the collaboration including the Toolbox in their communication channels. At the MSF paediatric days, a yearly event to bring together field staff, policy makers and academia to advance urgent paediatric issues of concern for the humanitarian field, Toolbox advisor dr. Uduak Okomo spoke and the moderator provided a brief introduction to the Toolbox.

Permission was given to use images from the Toolbox in a variety of publications/educational materials, including teaching materials for Swedish high school students, a Dutch clinical practice guideline about rational antibiotic use in dentistry, an e-learning course for health care staff in Scotland, and in an article in Revista Medicina Buenos Aires. Discussions were held with the AMR National Working group of Students for Global Health UK about mentoring one of their student teams, as well as with the Rwandan initiative OAZIS health that are conceptualizing a stewardship hub in Rwanda to teach future health professionals about AMS and AMR.

In light of the ongoing COVID-19 pandemic and competing priorities, it was encouraging to see our work also contributed to an increasing interest for the Toolbox in LMICs. Total number of users in LMICs increased by 27% - from 81,000 in 2020 to 103,000 in 2021. More than 25,000 users came from the African continent, with 22,600 accessing from sub-Saharan Africa. The number of users in sub-Saharan Africa increased by more than 50% compared to the year before. In Asia, the number of users increased by 22% to more than 80,000 users, and in Latin America by 9% (around 3000 users in total). Overall, more than 220,000 users accessed the Toolbox.
Coalitions, communities of practice and movements are strengthened and extended to address antibiotic resistance through narratives and action that contribute to universal health coverage, poverty reduction, food justice and environmental sustainability.
Civil Society mobilization
Engaging civil society at country and regional level is imperative as they are instrumental not only as partners with the government but also providing stakeholder platforms for collaboration and integration of health issues. In addition, CSOs have the capability to function as monitoring for accountability agents tracking the progress on commitments that governments make in areas such as surveillance, affordable access, infection prevention and control, and raising awareness about AMR which are all very important especially under COVID-19 pandemic situation.

Engaging CSOs in Africa
In 2021, our CSO engagement efforts in the African region continued. As a way to work towards having civil society and social movements across different sectors formally included in processes to develop and implement NAPs, ReAct Africa engaged in a number of activities. Following a virtual CSOs workshop hosted by ReAct and South Centre in Q1 themed “Increasing CSOs participation to address AMR and contribute to the global development agenda”, ReAct held another workshop in November, jointly with Africa CDC, the Tripartite (WHO, FAO, OIE) plus UNEP, engaging CSOs and media in the African region. The main aim of the workshop was to increase CSOs and media participation in the regional agenda to address AMR including discussions for an effective WAAW 2021. Key observation from the workshops was that there was a noted increase from the environmental sector’s participation and representation including the Centre for Science and Environment (CSE) when compared to past forums. This called for continued advocacy to promote even stronger engagements from the environmental sector in addressing AMR, so as to maximize the One Health approach. Africa CDC continued to see value in continuing working together with ReAct Africa as a key stakeholder in engaging CSOs on AMR in the region. It was encouraging to witness the growing recognition by the Tripartite-Plus, and the Africa CDC of the critical role that CSOs can play in AMR response as well as renewed partnership and active participation at ReAct Africa events.

ReAct Africa also partnered with Tropical Health & Education Trust and Commonwealth Partnership for AMS to host an AMS Gender Equality and Social Inclusion training for Health Partnerships. This activity reflected important learnings for the gender perspectives of ReAct’s work. ReAct Africa was also engaged to assist in training and mentoring Fleming Fund Fellows by African Society for Laboratory Medicine.

Engaging CSOs is imperative as they:

- provide stakeholder platforms
- partner with governments
- can act as agents to monitor for accountability
ReAct Africa Annual Conference

From November 30th to December 3rd, ReAct Africa and the South Centre organized a regional conference on AMR centering on “Progress achieved on the Global Action Plan on Antimicrobial Resistance and Pandemic Preparedness in the African Region.” Through a four-day virtual conference, participants from 47 countries discussed four key objectives. The first was implementation of the GAP, including governance and ongoing challenges of implementation. On the first day, it was highlighted that COVID-19 had demonstrated the urgent need to strengthen health systems and to mobilize resources. ReAct called for AMR to be viewed as an ongoing pandemic and for stakeholders to act from a systems perspective. The conference also featured the review of the linkages between AMR and pandemic preparedness (second key topic) and the review of NAP financing (third key topic) with interactive discussions from the World Bank, Fleming Fund and WHO. Last but not the least, the conference aimed to convene experts, civil society groups, academia and governments to put a spotlight on AMR in African countries.

The ReAct Africa annual conference provides a platform for capacity building and regional prioritization of activities through lessons learnt and sharing of best practices which has been key in achieving outcomes including having “LMIC governments apply a One Health approach and prioritize interventions that tackle the local drivers of ABR while ensuring sustainable access when developing and implementing national Action Plans.” The conference also featured one day highlighting students AMR activities in recognition that students are key stakeholders in addressing AMR. Immediate feedback from the conference indicated that participants got current updates and learned from the discussions.

Key takeaways ReAct Africa Conference

- There is still lack of political commitment that translates into resource allocation. Without political will and strong leadership, NAP implementation will remain fragmented in the region.
- NAP prioritization and revisions are key in the development and or extension of current AMR NAPs.
- In addition to continued awareness creation and understanding, there is need to strengthen IPC and AMS to delay emergence and limit transmission of AMR.
- There is need to also strengthen health systems to improve surveillance & provide evidence-based understanding of the extent and impact of AMR in the region that would help with resource mobilization.
- COVID-19 interventions could be leveraged on to tackle AMR by taking a holistic and health systems strengthening approach.
- AMR interventions can also benefit from International Health Regulations and other emergency response efforts.
- NAP are country owned; hence their development should be cognizant of country policies and the local environment to ensure joint action in mobilizing resources and where possible integrating programs with continued monitoring and evaluation.
- There is need for continued, consistent community engagement and empowerment, as well as a simplification of AMR language.
- COVID-19 has negatively impacted AMR response as most countries deprioritize NAP implementation to respond to emerging strains of COVID-19.
Engaging future champions of AMR
Students are an important and valuable stakeholder in addressing the global health threat of AMR since they are the next generation of public health professionals, the potential future antimicrobial prescribers, users, stewards, and policymakers in their professional practice. Building their capacity helps to build an energetic and enthusiastic stakeholder group that is a link to the community in raising awareness and are important change agents. Building AMR champions is important as the students transition to their professional careers. Students also enrich and contribute directly to ReAct’s work as interns and research assistants.

Internship projects
In 2021, ReAct supported a post-graduate internship project to develop a survey to explore how to communicate ABR to politicians and engaged with Member of the European Parliament (MEP) interest groups for its dissemination. Although it had a limited amount of responses, the project was useful for establishing contacts and networking with several MEP groups including the TB caucus and UNITE. The survey results compiled from 20 full responses were summarized in a short internal report and shared with an in-depth presentation. The survey was followed up with deep interviews with policy makers as part of a Master thesis project at Lund’s university which ReAct also supported on thematic analysis exploring politicians’ understanding of antibiotic resistance.

ASPIC Clubs to engage students on AMR
It has been seen that students have the power to form a link between the scientific community and the general public. Students can be used to pass on specific health information to a wider audience and they act as effective tools for ensuring accountability in local communities. ASPIC (Antibiotic Stewardship and Prevention of Infection in Communities) Clubs, a student engagement initiative of ReAct Asia Pacific launched in 2018, aims to sensitize students on AMR and infection prevention measures in communities. The initiative currently has 16 student clubs established in colleges and universities in the region. The initiative has diversified to engage school students also, with training being conducted for primary and high school students on AMR. Along with the engagement in colleges and schools, the network also has been conducting various competitions for students.

Student Research Champions for AMR (SRC4AMR) has been one of these competitions and invites best student research proposals on AMR and related themes. The second edition of the competition was conducted in Sep-Nov 2021 and was done in association with the Medical Students Association of India (MSAI), International Veterinary Students Association (IVSA) India and Center for One Health Education Advocacy Research & Training (COHEART). Other competitions, such as the Photography Competition for students on AMR has seen several editions and has been carried out as part of the World Antimicrobial Awareness Week activities annually. Besides the competitions, ReAct also hosted ASPIC Annual meeting, Students’ meet-up and webinar series for ASPIC club members.

The engagement of school students under the banner of ASPIC Jr initiative was also started in 2021 with the piloting of the High School manual on AMR for high school students. In Nov 2021, the piloting was conducted in a few schools in the region and topics such as One Health, Food Safety, Appropriate Medicine use and AMR were covered. A ToT workshop to sensitize school teachers on AMR and to understand how best to translate the complex nature of AMR to the student audience was held. For more information on ASPIC Clubs activities, please visit: www.aspic.in.

Innovate4Health
In bringing Innovate4Health, an online global student design sprint, ReAct engaged over 90 students on 29 teams over five months to develop further their innovation proposals to address emerging in-
fectious disease threats, from COVID-19 to AMR. Throughout late 2020 and early 2021, the design sprint unfolded in three stages (Idea, Implementation, and Advocacy), ReAct and Innovation + Design Enabling Access (IDEA) Initiative, in collaboration with partners such as the International Federation of Medical Student Organizations (IFMSA), prepared recorded online talks, held coaching sessions to hear the pitches of their innovation proposals, conducted synchronous sessions with experts covering behavior change, mHealth, low-cost diagnostics, advocacy and dissemination, and arranged for feedback from international expert jury panels for the top 10 teams.

In Fall of 2021, ReAct kicked off the second iteration of Innovate4Health, with online outreach efforts reaching a wide variety of networks. All in all, over 70 teams applied for the 2021 round of Innovate4Health, after which we arranged for expert review, with the help of both ReAct and IFMSA colleagues, to eventually focus our mentoring on the selected 15 finalist student teams. Three coaching sessions for these finalist teams were organized, with projects ranging from improving hygiene in wet markets to addressing AMR risk from wastewater treatment plants and tackling low vaccination rates that have emerged during COVID-19. ReAct helped finalist teams refine their presentations for a session, with ReAct’s co-sponsorship, at the Global Youth AMR Summit, organized by the World Health Student Alliance [comprised of student professional associations with a combined membership of more than a million students]. We also provided over a dozen speaker leads to the Summit organizers, resulting in far greater representation of LMIC and civil society voices on various panels.

With the lessons learned from Innovate4Health on using the digital workspace for visual collaboration, we also supported UNEP in applying this tool for its expert consultation for developing the report on AMR and the environment. We adapted our Policy Roadmap Tool for teaching policy analysis to this digital workspace for Professor So’s DrPH problem-solving seminar on “Tackling the Intersectoral Challenge of Antimicrobial Resistance,” which saw double the enrollment over previous years to over forty doctoral students. Along these lines, Professor So also taught an online two-week offering of “Designing Transformative Innovation for Global Health” at the Johns Hopkins Health Systems Summer Institute in 2021, linking to several examples related to AMR.

AMR Leadership Program (AMRLEP)
In Africa, ReAct piloted an AMR Leadership Program (AMRLEP) in collaboration with Students Against Superbugs-Africa. The goal of the program is to have empowered student leaders in Africa who are
problem solvers and solution providers for the AMR and global health threat. A total of 91 students graduated from the program from 8 African countries. These had been selected from over 300 applicants. Following the training and sensitization sessions, a number of students have taken on various initiatives in their respective countries. For example following the training and sensitization sessions, a number of students have taken on various initiatives in their respective countries including organizing sensitization sessions, community outreach events such as awareness raising football matches before and during and after World Antimicrobial Awareness Week (WAAW). These activities have already shown the positive results from the program. In addition, a “My Turn” annual AMR exhibition event for Kenyan Students was held in October 2021 as part of the AMRLEP program. The event was organized by ReAct Africa, Medical Students’ Association of Kenya; Committee of Public Health (MSAKE – SCOPH) and Students Against Superbugs Africa. The attendees included students from 11 different universities from all across Kenya and professionals from different fields. The main objective was to provide students in Kenya with an opportunity to meet and showcase the work they have been doing to address AMR. The AMRLEP program has potential to grow into a great movement in the continent and it requires sustained efforts to ensure its sustainability and expansion.

In addition, although COVID-19 impeded progress due to school closures, the elementary level children were also engaged in 2021 through Alforja Educativa activities that took place in the target counties of Kisumu and Siaya in Kenya. An art competition was held and the award ceremony happened during WAAW 2021.

Community Advocacy Platform in Asia

Since 2021, ReAct has been also working on a Community Advocacy Platform (CAP) as an Asian networking initiative with other CSOs, academia and other stakeholders to sensitize towards the role of community mobilization and participation on ABR. This was done with a hypothesis that community engagement and ownership are key to sustainable public health solutions.

As a first step, we have identified potential groups working on community engagement in ReAct Asia Pacific, created a listserv and launched a newsletter in the last quarter of 2021, to start the network building activities of Community Advocacy Platform (CAP). The focus of the first issue of the CAP newsletter was on advertising our community engagement efforts and reaching out to more groups who may be interested in this approach. The first issue was sent out to 182 people spread over 10 countries and resulted in 388 opens and 35 visits to the links provided in the newsletter. We planned to use the newsletter to increase awareness on community engagement in AMR as well as provide best practices for community engagement from various Low-Middle Income Country contexts.

For a deeper engagement, we have shortlisted two countries - Bangladesh and Vietnam. To better understand their views, the impact of NAP and feasibility of such a platform, we collaborated with Oxford University Clinical Research Unit in Vietnam and Daffodil International University in Bangladesh. As part of this, we have hosted online workshops (with the theme of impact of National Action Plans on AMR) with these groups in 2021. We also conducted a qualitative study to evaluate the community-level impact of National Action Plans in Bangladesh and Vietnam. In preliminary analysis, it is evident that though the NAPs on AMR are a starting point to tackle the silent pandemic of AMR, it is far from achieving long-term solutions with its top-down approach. There is also evidence pointing that antimicrobial use in poultry, animal husbandry, and plant growth outweighs its use in human health, when it comes to the Asia Pacific region, highlighting the importance of One Health being a practicality. There is a need for more initiatives based on inputs from on the ground and a necessity to adopt strategies that are feasible and tailored to each community.

Community care and wisdom in the context of COVID-19

In the context of the ongoing pandemic, ReAct Latin America co-organized a two-day Dialogue of Knowledge between Academia, Therapists and Indigenous Peoples (Guatemala, Ecuador, Bolivia, Peru) in August 2021. The meeting focused on the community as the heart of the health system to confront the pandemic. A qualitative research on “Wisdom and community responses to the pandemic” was presented by Mayan therapists and students of the Kaqchikel Mayan University, Guatemala. A selection of motivational tools, testimony and inspiring stories from the communities were compiled and published. As a result of the meeting, a cooperation agreement was established between ReAct Latin America and Universidad Maya to join efforts in training, research and implementation of community awareness programs against antibiotic resistance.

In follow-up, ReAct held a three-day international seminar “Community wisdoms, on health care in...”
times of Covid 19” together with the Association of Community Health Services in November 2021. The seminar shared critical knowledge and experience from community health and primary health care in Guatemala, Central America and the Caribbean in the context of COVID-19. The seminar also reflected the importance of local empowerment and how to address health threats and the pandemic from the traditional and ancestral aspects.

Awareness raising and education
In Latin America, ReAct together with its partners at the national and regional levels implemented an awareness raising program throughout the year and has brought together experts from different areas of knowledge, constituting an important strategy for dialogue between academia, social movements, and primary health care professionals. Through the planning and implementation process of our virtual education programs, production and dissemination of educational materials, we also strengthened our ties with social organizations.

ReAct Latin America maintains a website, social media accounts, with a significant influence on the Spanish-speaking population. We expanded our network of contacts, integrated and collaborated with several virtual networks of national and regional scope (e.g. the Latin American health network). The production of educational and communicational material has responded to the needs of the changing landscape under COVID-19. This participatory program involved social movements and empowered the community and citizens to improve knowledge on the use of medicines and share their stories about the use, abuse and lack of access to medicines, especially antibiotics.

In 2021, ReAct Latin America together with collaborators organized events, dialogues, seminars and promoted awareness campaigns at various occasions including the World Health Day (Antibiotic Resistance: much more than a medical problem), World Breastfeeding Week, World Sepsis Week, World Microbiome Day, and the WAAW (myths and truths about antibiotic use oriented towards the community).

Series of knowledge products on Communities and Antibiotics in both Spanish and English were published after a review process.

Printed versions were further shared with different social organizations and through extended platforms and digital tools.

1. Community Wisdom. Use of antibiotics and the Health of Mother Earth
2. Communities Responding to Antibiotic Resistance
3. Protecting the essence of Health. Health Education Program
4. Towards a Community Action Plan
5. Sabiduría Comunitaria. Uso de antibióticos y salud de la Madre Tierra
6. Respuestas Comunitarias a la resistencia a los antibióticos
7. A cuidar la flor de la Salud. Programa educativo en Salud
8. Hacia un Plan de Acción Comunitario
Targeting community leaders, ReAct organized a course on the proper use of antibiotics in the community. The main purpose of this training, aimed at leaders of social movements, agricultural producers’ organizations, and health promoters, for responsible use of antibiotics. The participatory course with supporting, motivational and training materials was prepared by ReAct Latin America, academic network of collaborators, as well as the attendees of the course. A collection of testimonials, stories and lessons learned in the community were prepared by the attendees.

- Ecosystems, animals and humans - A cycle for antibiotics.
- Infodemic and Self-medication - The other face of the pandemic.
- Inequities, diseases and the use of antibiotics.
- Healthcare-Associated Infections and the COVID-19

Targeting teachers and children, a virtual Alforja Educativa course was held by ReAct Latin America in collaboration with the University of Mar del Plata, Argentina and the Ministry of Education of Formosa, Argentina. The call for registrations had the immediate response of 500 candidates from different social, academic and governmental organizations in Argentina, Ecuador, Peru, Bolivia, El Salvador, Nicaragua, Colombia, Mexico. The course was developed with the training of trainers from Argentina, Ecuador, Colombia, and the United States. A platform for digital materials for teachers and educators on ABR was created on the website.

Additionally under 2021, ReAct Asia Pacific prepared an illustrated story book depicting the ‘Journey of an antibiotic’. The book covers themes such as how antibiotics are developed, manufactured, the problem of antimicrobial resistance and the need for holistic solutions to tackle ABR. The aim of the book is to highlight various issues related to use of antibiotics such as access and excess, irrational use and environmental pollution. The book is in the design stage and will be disseminated in 2022 to support our advocacy efforts.

Engaging Journalists in Indonesia
On November 23, ReAct’s partner in Indonesia, the Concerned and Caring Parents Foundation (Yayas-an Orangtua Peduli/YOP) invited local journalists from Bali to a WAAW Media Briefing. Eleven journalists came from local newspapers, online media, and radio stations to discuss this year’s theme “Spread Awareness, Stop Resistance” and One Health approach with speakers from Indonesia Ministry of Agriculture, FAO ECTAD Communication Officer, YOP’s Founder and WHO Indonesia National Professional Officer for AMR and Chairperson of the Indonesian AMR Committee. The event generated media coverage and intended to further encourage journalists to play a more active role in communicating and reporting on AMR issues.

Dialogue and exchange meeting between girls and boys from Argentina and Ecuador

Links to publications and videos
- Niño a Niño Ecuador
- Niño a Niño Ecuador - Cinco de Mayo
- Niño a Niño Ecuador - Cinco de Junio - Dia del ambiente
- Saludandonos Magazine
- Children and adolescents as protagonists: Voices of children taking care of Mother Earth
- For educators on antibiotic resistance: Alforja Educativa

*Esa luna chica de la noche, ¿sos también planteado? Las estrellas tiemblan de estupor y de millo. Ella no consigue entender cómo sigue dando vueltas, todavía viva, este mundo nuestro, tan fervorosamente dedicado a su propia aniquilación*. 

Eduardo Galeano.
WASH and AMR
In 2021, ReAct, through the Alforja Educativa project, featured a campaign on WASH, which was developed jointly by the technical team, teachers and children, for an active learning process on WASH including access to clean water for proper handwashing and the prevention of infectious diseases, and thus reducing the use of antibiotics. The WASH campaign was disseminated through various channels including social media, newsletter and video broadcast. The ReAct Latin America website created the “Alforja Educativa Catalog” with all materials for the Alforja Educativa on antibiotic resistance, freely accessible for teachers, educators, health and community promoters, children and adolescents.

AMR & Cancer
Antibiotic resistance undermines key advances being made in cancer care by adversely affecting cancer treatment outcomes and threatening the survival of people living with cancer. Already in 2019, ReAct initiated discussions with the Swedish cancer society (Cancerfonden) and the Union for International Cancer Control (UICC) - a large umbrella organization constituted of over 1200 member organizations in 172 countries. These collaborations were strengthened in the past few years, contributing to the medium-term outcome of strategic objective 2, which focuses on expanding the number of collaborative partnerships.

Throughout 2021, collaboration around AMR and cancer has been running quite smoothly and ReAct no longer needed to take the lead but rather follow up and support events. Building on networking and consultation efforts, ReAct was invited to speak at various events and become a member of the stakeholder contact group for EU’s beating cancer plan. On the World Cancer Day on 4th February 2021, ReAct was invited to present at a hearing in the European Parliament titled ‘World cancer day: the impact of COVID19 and other health threats on cancer’. A member of parliament raised ABR directly with the Commissioner in the following session. ReAct’s catalytic engagement with the UICC has led to various results including UICC actively mentioning AMR in their statement at the World Health Assembly as well as updated AMR & Cancer page. ReAct resources were prominently featured on UICC’s web pages as well and ReAct’s site on the global threat of antibiotic resistance was linked to the cancer brief. UICC has also organized relevant events such as a Master’s course on AMR and Cancer where ReAct Africa contributed with a pre-recording on ‘Rationale Use of Medicines and AMR Stewardship’. Additionally, ReAct has published a joint blog with the International Society of Paediatric Oncology, created a ReAct co-written section in Cancer Control, and co-organized an event during London Global Cancer week where we highlighted the needs for LMICs.

ReAct-Lancet global health article:
Resetting the agenda for ABR through a health systems perspective
Antibiotics are critical components of all health systems. Lessons learnt from the COVID-19 pandemic can help mobilize urgent global action to address the silent pandemic of ABR affecting countries throughout the world. In 2021, ReAct published an article published online in The Lancet Global Health June 15, reiterating that a health system approach nationally and globally is critical to mitigate the devastating consequences of antibiotic resistance.

The article has been widely disseminated and referenced. We have received further interest and positive feedback from a variety of important stakeholders, including the Swedish government offices of education on the narrative and semantics as well as United Nations Children’s Fund (Unicef) on AMR/ABR communication.

Article: Resetting the agenda for ABR through a health systems perspective
AMR & Children

In 2020, ReAct identified a thematic workstream around Children & AMR as this area received little attention and lacked data required for compelling arguments for action. ReAct developed a Children + AMR Fact sheet which has been used for communication and advocacy efforts towards targeted organizations and actors with pro-poor and children focus. We have also maintained our regular exchange with Unicef on AMR related updates and joint communication efforts.

In 2021, following up ReAct’s global survey on the perceptions and challenges doctors face when treating neonatal sepsis due to resistant pathogens, the findings were disseminated to a wider audience including the Spanish speaking groups through a Spanish version of the report and presentation at the Latin America PAHO meeting co-organized by ReAct Latin America. ReAct has also continued engagements with the Unicef Iraq counterparts and delivered a neonatal sepsis report with findings and recommendations based on sub-analysis of the data from Iraq. This sub-report was a follow-up request by the Ministry of Health of Iraq via the Unicef Iraq country office, in a timing when Iraq was going to develop a national AMR protocol for children under 5 years.

In Indonesia, ReAct supported the Concerned and Caring Parents Foundation (YOP) to organize a public webinar in collaboration with Ford Foundation and the Indonesian Ministry of Home Affairs. This webinar framed the threat of AMR as the silent pandemic and gathered more than 250 participants from university, parents, primary health workers, community health volunteers and representatives of faith-based organizations. This activity has established collaborative partnerships with other CSOs and NGOs to co-create ‘stories’ on AMR and children and improve visibility of AMR issues in Indonesia.

AMR and Environment

- Environmental Dialogues: Transition in times of crisis.
- 31st National and Latin American Laicrimpo Health Meeting, Ecosystem health: in the territories, water for life, challenges and tensions”. The preservation of effective antibiotics and the role of the community (antibiotics, environment and health).
- II Argentine Congress of Agroecology Interweaving knowledge towards Good Living. Argentine Society of Agroecology, a strategy towards healthy ecosystems. Bacteria are life, antibiotics too! (AMR, environment and health)

Additionally, ReAct has been in regular exchange with WASH actors and was the co-convener for the World Water Week’s session on AMR & Climate Change, applying a climate and one health lens to AMR and highlighting the role of WASH for infection prevention and reduced dependency on antibiotics.
Engaging Swedish actors

ReAct considers Sweden an important actor in international development and AMR global actions, hence some of ReAct Europe’s work also targeted Swedish policy makers and stakeholders. In 2021, ReAct was approached and agreed to take up coordination of the Swedish Network for International Cooperation on Antimicrobial Resistance, one of eight Swedish Networks in Global Health. A Reference group was initiated, consisting of representatives from ReAct, Swedish International Development Cooperation Agency (Sida), Public Health Agency of Sweden, WaterAid, MSF and UNICEF. During the year, the mission and main objective of the network was discussed in several meetings of the reference group, and by the end of the year Terms of Reference was drafted and the network organised its first activity. This was a Dialogue meeting with the Ministry of Health and Social Affairs (MoH) and the Ministry of Foreign Affairs (MFA), at which (in addition to the reference group organisations), Cancerfonden, Röda Korset and Antibiotic Smart Sweden attended. This meeting was the first step in an ongoing dialogue about the possibilities for Swedish action on AMR on the international scene. All participants agreed that the meeting and the network provide good platforms to continue the dialogue and align to pull in the same direction. In order to strengthen advocacy, we need to engage more active members into the network to bring their perspectives.

With the upcoming Swedish EU Presidency in 2023, ReAct Europe directed some of its work to advocacy opportunities in Sweden already in 2021. This included presenting during Sweden’s National Antibiotic Forum and participation in the subsequent panel discussion with MSF and Public Health Agency of Sweden. The forum had 100+ national and international participants. ReAct Europe also gave feedback on Sweden’s National Action Plan through the Swedish Coordination Group (Samverkansgruppen) and were invited to join the reference group of PLATINEA (PLATtform för INnovation av Existerande Antibiotika). We also wrote debate articles in Swedish main media (DN debatt, Dagens Samhälle) together with various partners. An interview (video + written) with ReAct was also published by ForskaSverige. One of the debate articles was translated into English and got international circulation as UK’s Special Envoy on AMR, Dame Sally Davies, communicated and circulated a Tweet. She also quote-tweeted on ReAct Europe’s efforts to light up various buildings, including Uppsala University buildings, in Blue for the World Antimicrobial Awareness Week (WAAW). Finally, we discussed with the head of Nationella arbetsgrupper (NAG) Strama how the work of STRAMA could be made more internationally known and available, which led to Strama and ReAct Europe being invited by the MoH to apply for funding for this project.

The Antibiotic Resistance Coalition

Throughout 2021, ReAct has also continued to advance our strategy for strengthening civil society action on AMR through the intersectoral Antibiotic Resistance Coalition (ARC). We continued the publication of monthly ARC newsletter issues, with subscriptions growing to over 500. With COVID-19 restrictions preventing a physical ARC meeting, we organized several teleconferences throughout the year, focused on a variety of AMR policy topics and challenges—from innovation and access issues to civil society strategy on global governance. Along these lines, ARC discussed how the implementation of new EU rules safeguarding the food supply from inappropriate use of antimicrobials in 2022 might leverage change among those countries exporting food animal products to the European Union. Examining food trade data, we looked to see whether ARC members might be positioned to take this issue on, from India to Brazil. Based on these discussions and combined with ARC feedback, we provided Joint Comments for the Public Consultation for the Draft WHO Global Strategy for Food Safety 2022-2030. And building upon recent research findings, we worked to broaden concerns over antimicrobial use in food production to plant crops, taking the issue up with Centre for Agriculture and Biosciences International (CABI), the CGIAR AMR Hub, and the UN Environment Program.
#3 Global governance

Strategic objective 3

Globally coordinated governance on antimicrobial resistance ensures a sustainable response that takes into account the needs, challenges and priorities of LMICs.
Making our voices heard
ReAct’s primary objective of engagement in global governance processes has been to ensure that voices from LMICs and from civil society are appropriately represented and included in these emerging structures and that governance mechanisms support the implementation of AMR NAPs in LMICs. The COVID-19 pandemic both slowed down governance building processes, and limited opportunities to engage and influence such processes. In 2021, ReAct continued policy work through regular landscape monitoring, collaborative intel sharing and strategic discussion process across the network. We raised our voices during the process of establishing a global governance mechanism on different fronts and in various media contexts. ReAct Africa had the opportunity to engage at country, regional and global level with a view to advocate and lobby for perspectives and needs of the South to be included at regional and global level discussions. Facilitation and being panelists/speakers at various webinars and high level meetings including the UN High-level Dialogue on AMR meeting and other global meetings. These sustained efforts help in some positions and views of the South incorporated to strengthen global governance and coordinated response to the global health threat of AMR.

Through the ARC, we worked to improve global governance on AMR through a variety of lenses. In 2021, ReAct convened multiple policy discussions of AMR-related policy topics for ARC members, from WHO Executive Board and World Health Assembly briefings to analyses of the CARB-X Stewardship and Access Plan Development Guide, AMR’s role in a Pandemic Preparedness Framework, and talking points for the UN High-Level Dialogue on AMR. Throughout 2021, ReAct actively carried out advocacy work particularly around the WHO process on AMR work. In advance of the 148th WHO Executive Board (EB) meeting, ReAct published a targeted policy briefing and associated social media campaign, emphasizing that we should not be #NAPpingOvertheGAP on AMR, calling for AMR financing as well as key performance indicators to benchmark progress. By running concurrent social media campaigns through Twitter and Facebook, we were able to reach over 50,000 viewers while also disseminating the briefing to Health Attaches at the Missions in Geneva. Following up the WHO EB and prior to the 74th World Health Assembly (WHA), ReAct actively reached out to the Missions in Geneva and exchanged thoughts on proposing AMR as an annual agenda item for the WHA. In May 2021 ahead of the WHA, ReAct provided a virtual briefing to Member States of the South Centre on “Preparing better for the next pandemic: drug-resistant infections and access to antibiotics.” ReAct also developed and disseminated an important briefing note on WHA agenda point 17.3 on Pandemic Prevention, Preparedness and Response (PPPR) and ABR, which was widely disseminated across the WHO Secretariat and featured in the WHO NAP list-serv send-out. ARC policy briefing was also released highlighting key concerns for Country Delegations attending the WHA and how WHA agenda items might link to tackling drug-resistant infections. It was encouraging to see countries such as Kenya and Zambia that ReAct had continuous interactions with making strong statements on AMR during the WHA. There was also an increasing number of Non-State Actors taking the floor to make statements specifically on AMR including new stakeholders in the field such as the Union for International Cancer Control (UICC). ReAct has focused on mobilizing in particular the cancer community over the past years, and is therefore very encouraged to see the field of actors concerned about AMR growing.

AMR & Pandemic preparedness
Under 2021, amongst the ongoing COVID-19 outbreaks, AMR hasn’t gotten much new and meaningful traction at several global forums so we attempted more proactive preparation, intel gathering and messaging in connection to pandemic preparedness at different occasions through public consultations, bilateral outreach and mission interactions. Once the proposal to establish a ‘Pandemic Treaty’ was put forward for further consideration in a WHA Special Session, ReAct has continuously interacted with member states and key actors including the G20 High-level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response which delivered a report that referred to ReAct’s briefing note even though AMR was excluded from their conclusions. The G20 Health Ministers’ meeting in September focused on COVID-19 response and future preparedness and response to pandemics. The need for increased ac-
tions to tackle AMR was on the agenda and the Declaration adopted by the G20 reaffirmed several of the commitments on AMR already made previously and links action on AMR to the SDGs achievement. Ahead of the WHA Special Session in November, ReAct further adapted the previous messaging and developed a WHASS briefing note outlining key considerations that are imperative for making negotiations of a new legal instrument productive for all actors involved. The briefing also outlines a number of areas where actions to strengthen pandemic preparedness and response, have clear overlap with effectively addressing antibiotic resistance. The briefing therefore makes a strong case for including antibiotic resistance in the scope of a new legal instrument to leverage such potential synergies fully.

Given that Special Session was mostly focused on modalities and general issues and not intended for specific topic discussions, we were pleased to see that three countries made specific mentions about AMR during the session. ReAct has published a newsletter after the Special Session and followed up with member states subsequently in December for engagement in the upcoming WHO EB and the intergovernmental negotiation body processes.

Engaging AMR global governance processes

Externally there have been significant delays of AMR global governance structures. ReAct was able to partially follow and engage the Global Leader Group process through informal exchange on intel and providing input behind the scene. As we had previously on the Global Leaders Group on AMR and the Independent Panel on Evidence for Action Against AMR, ReAct coordinated an ARC response to the Public Questionnaire on the Multi-Stakeholder Partnership Platform on AMR, garnering over a dozen organizational sign-ons. The trenchant critical analysis pointed out how their consensus-based approach, with high transaction costs and unclear benefits, risked taking up what little bandwidth civil society and LMICs had on AMR, without promising any real returns or accountability by the Tripartite agencies in advancing the issue. At year’s end, ReAct cross-nodal project on “Seeding and Scaling One Health Awareness and Action on AMR,” under which we might have the opportunity to guide how the Multi-Stakeholder Partnership Platform might adopt an approach to Action Groups closer to what we had recommended through our project’s work.

Throughout the year, we repeatedly drew attention to WHO’s failure to conduct a Five-Year Review on the GAP on AMR, unlike FAO which completed one and revised its Strategic Objectives accordingly. Taking on the approach of an AMR Watch, we began analyse the available data in the Tripartite AMR Country Self-Assessment Survey, the budget of the Multi-Partner Trust Fund, OIE Annual Report on the use of antimicrobial agents in animals, and UN COMTRADE data on food trade as well as some country-level trade data. This enabled us to develop metrics that called out the lack of adequate financing of NAPs, the quarter of Member States reporting continued use of antimicrobial drugs for growth promotion for food animals (briefing for WHO Executive Board and ARC briefing for World Health Assembly), and the inadequate engagement of the environmental sector in NAPs (incorporated into the UNEP report on environmental dimensions of AMR as part of its core Writing Group). Our work uncovered multiple barriers to holding both global and national governance on AMR accountable. The WHO has still not released indicators that would have tracked progress towards AMR benchmarks under the 2019 Tripartite Monitoring and Evaluation Framework, to which ReAct had contributed. So we highlighted that WHO had not followed up on this Framework, nor the Tripartite’s commitment to conduct a five-year review of the GAP on AMR even though FAO had already done so.

After the World Health Assembly in May 2021, we were gratified to learn that WHO’s Evaluation Unit finally took this up and reached out to ReAct for an interview. Learning that no other civil society voices would be represented in their evaluation, we proposed to convene ARC members for a civil society listening post session for the WHO team conducting the Comprehensive Review of the GAP on AMR, and their team took us up on this offer. During the two-and-a-half hour session, we covered four pillars in our discussion, including 1) WHO leadership; 2) WHO progress on NAPs; 3) WHO’s intersectoral work; and 4) WHO’s strategic vision. With ARC members being the only contributors from civil society, the final Comprehensive Review report revealed that most of our inputs were reflected in its findings and recommendations.
Advancing One Health in global governance

In 2021, other promising developments in food and environment sectors have provided ReAct opportunities to advance a One Health approach to tackling AMR. The UN Environment Assembly called upon UNEP to develop a report on the environmental dimensions of AMR, a process in which ReAct played a significant role. From discussions beginning in the first quarter of 2021, we provided inputs on the technical consultation for shaping the report, wrote as part of the Core Writing Group the Challenges and Solutions background chapter that fed into the final report, worked to see how AMR might integrate into UNEPs tracking of environmental indicators for the SDGs, and in the process, contributed to the FAO-led “One Health Legislative Assessment Tool” chapter on AMR and the Environment through several rounds of feedback.

Furthermore, we took advantage of research, published by CABI (an intergovernmental agency providing technical assistance on raising of plant crops), that revealed a surprising frequency of antimicrobial use in crop production, to raise greater awareness of this issue. ReAct also helped to shape the UNEP consultation providing inputs to their report on environmental dimensions of AMR, such that crops and antimicrobials and CABI’s voice would be lifted up in the report’s framework. This opened an entirely new dimension to AMR, where previously the use of antimicrobials on crops, including antifungal agents, has been largely neglected. ReAct is currently working with CABI on a joint statement with leading crop scientists, some in the CGIAR centers, on AMR and crop production.

Taking on a markedly increasing One Health approach, ReAct contributed extensively to UNEP’s writing of the report on antimicrobials and the environment and drafted the key final chapter in a detailed background report on Challenges and Solutions to Addressing Environmental Dimensions to AMR throughout 2021. At UNEP’s request, we were also able to provide feedback on the draft GLG Financing Note, flagging that only one in five NAPs on AMR were fully financed and that bringing antibiotics to market involves more than mere return on investment and reimbursement to the drug industry. This also opened the door for us to provide input to the draft GLG Financing briefing note and the Tripartite One Health AMR Legal Tool.

ReAct has long believed that a truly One Health and coordinated approach enlisting international agencies, including the UNEP, is necessary to strengthen the response to AMR. The ARC’s Policy Briefing for the World Health Assembly, for example, has called for the addition of the UN Environment Programme as an equal partner to the Tripartite, along with the engagement of other UN agencies. Our repeated calls for a Quadripartite AMR governance structure that includes UNEP was picked up in the WHO’s own Comprehensive Review on the GAP on AMR in 2021. We are delighted to see that in March 2022, UNEP officially joined the new Quadripartite arrangement for AMR global governance.

ReAct contributed extensively to develop an UNEP report on the environmental dimensions of AMR that will be published in 2022. A truly One Health and coordinated approach is necessary to strengthen the response to antimicrobial resistance.
#4 Public health driven innovation

Strategic objective 4

A public health driven and end-to-end approach to innovation that enables sustainable access to effective antibiotics in LMICs is broadly supported.
Public Health driven innovation

The development of new antibiotics is a core part of the global response to rising resistance levels to older drugs, yet no new drugs have been discovered for over 30 years. Addressing the global crisis in antibiotic research and development has been a priority for ReAct throughout our existence and continues to be so.

The crisis of inequitable global access to COVID-19 vaccines and treatments has led to an increased interest in creating more regional and local production of diagnostics, drugs and vaccines and interest to reengineer the research and development system through voluntary licensing of key technologies. Global Antibiotic Research and Development Partnership (GARDP), the WHO, the Clinton Health Access Initiative and UNICEF have also come together in a joint effort to establish the SECURE Initiative, a still fledgling but aspirational pilot project of providing sustainable access to new and old antibiotics to a number of LMICs thereby adding an important piece of the end-to-end puzzle. In 2021, ReAct was invited to comment on the structure and content of the initiative, and we anticipate engagement efforts with SECURE will intensify in 2022 including how key high-income countries may be able to support and finance this effort.

In 2021, ReAct Europe published an important flagship report titled “Ensuring sustainable access to effective antibiotics for everyone, everywhere” which outlined the end-to-end approach to antibiotic innovation that we believe is central for governments to be able to solve the global antibiotics innovation crisis. The report identifies five key challenges that must be solved in order to achieve sustainable access for all, and charts out options for governmental action in response to each of them. To this day, ReAct remains one of few actors in the ABR field which advocates for creating a system that by design serves the health needs of everyone - rich and poor. Against the background of the current global inequitable access to COVID-19-vaccines, we believe that voices that argue for such a new approach are needed more than ever to highlight the needs of LMICs to the funders that are most likely to make the necessary investments in antibiotic R&D. ReAct has used this report to communicate with key stakeholders in the R&D space.

The online report launch event attracted 75 participants (150 registered) and the recording was made available online. Additionally, ReAct participated in the access to medicines dialogue hosted by the European Public Health Alliance. ReAct’s founder Otto Cars was invited to speak at the CARB-X 5 year anniversary, highlighting the end-to-end message from the report.

At the EU level, ReAct has been identified as a critical go-to resource on ABR topics. In 2021, ReAct Europe has engaged and submitted input to a number of relevant processes including the establishment of HERA (a new Health Emergency Preparedness and Response Unit in the European Commission) and EU Pharmaceutical legislation Review consultation. We also held bilateral discussions with key civil servants at the European Commission on the end-to-end mandate of HERA. Additionally, foreseeing strategic opportunities in the upcoming EU presidencies (France 2022, Sweden 2023), ReAct has proactively approached the relevant ministries to advocate for inclusion of ABR topic for 2022 and 2023. As a preliminary positive response, we were invited to speak at the High-Level One Health Ministerial Conference on AMR under French Presidency in March 2022.

Furthermore, leading up to the WHO Fair Pricing Forum in April 2021, ReAct co-chaired one of the two Technical Working Groups. His Working Group focused on aligning pharmaceutical innovation incentives to achieve fair pricing, and this provided the opportunity to make the case for an end-to-end model for pharmaceutical innovation as part of his remarks for the closing plenary session, as well as co-authoring a Forum background briefing paper.

In July 2021, at the invitation of the European Union Delegation to the United States, ReAct helped organize the anticipated Q&A and line-up for the “U.S. and Global Actions on Antimicrobial Resistance: A Transatlantic Dialogue on Public Health” event, moderated by the Infectious Disease Society of America and with key U.S. and E.U. policymakers. We spoke alongside senior US DHHS and European Commission officials, calling for stronger U.S. efforts to address antimicrobial use in food animal production, better designed and de-linked incentives for antibiotic reimbursement tied to stewardship, and improved financing for AMR.
ReAct also echoed such messages on public health driven R&D and de-linkage in an intergovernmental briefing on AMR that we delivered for the South Centre in lead up to the WHA and in feedback during the civil society consultation on the SECURE initiative. Also working with the South Centre, we co-organized and gave the opening overview for a UN High Level Political Forum 2021 Side Event on “Ensuring a Sustainable Response to COVID-19 and Emerging Infectious Diseases through Local Production,” which garnered nearly 200 interested viewers. During this forum, we spoke to the challenges of sustainable access for antibiotics, the opportunities that COVID-19 afforded, and the historical example of the public sector’s role in scaling up penicillin production at the dawn of the antibiotic age.

In an effort to provide input into funder priority setting and provide guide rails on future investments into AMR, we provided input to the UK Global AMR Innovation Fund’s 2020/2021 Evaluation Team, specifically emphasizing diagnostic and therapeutic innovation issues. In support of public-health driven innovation, we worked on a policy and ethical framework on the mass drug administration of antibiotics to lower childhood mortality. This project was supported under a Greenwall Foundation grant and consisted of conducting key stakeholder interviews, commissioning papers offering different disciplinary insights, and hosting several expert consultations. The papers cover topics ranging from the clinical risks and benefits of mass drug administration (MDA) of antibiotics to the microbiome and MDA to aspects of clinical trial design and implementation of MDA interventions. This work is timely, as WHO published guidance on MDA of azithromycin to children under five years of age in 2020 to promote child survival and called for updating these recommendations within 2-3 years of its publication. The papers, some already undergoing journal submission and review, will become part of a thematic series in Infectious Diseases of Poverty that should be published in 2022.

In 2021, ReAct also worked on related issues such as COVID-19 vaccine access, laying out the challenges ahead in ensuring sustainable access to COVID-19 vaccines in a perspective piece for Med, Cell’s new translational science journal. In August 2021, Professor So was appointed to the WHO Technical Advisory Group on the COVID-19 Technology Access Pool (C-TAP), which was created with the goal of facilitating the timely, equitable, and affordable access of COVID-19 health products. Since October 2021, ReAct has also been working under a WHO contract to complete a funding proposal and discussion on next steps for product development partnerships (PDPs). These efforts considered how PDPs, including GARDP, might be better financed, work in concert with other institutions on an end-to-end approach, and be held more accountable to ensure sustainable access for health technologies, including antibiotics.
Reflections and ways forward

Over the last years ReAct has grown, both in its geographical presence and in its scope of activities. The five regional nodes have continued to master their particular ways of working which contributes to the uniqueness of the network. Also common activities across nodes were initiated, however in some occasions there were more ideas and ambitions than was always carried through. Distance, time difference and non optimal planning were some reasons. Looking forward, and in the development of a new strategic plan, ReAct will invest in capitalizing as much as possible that we are a global network. This will be done both by cross-nodal activities, sharing resources and learning even more from each other. Work that has shown to be successful in one region can be adapted and implemented in other areas.

As mentioned earlier in this report the NAP implementation has been very slow and many LMICs were suffering both from lack of financing and technical capacity and on some occasions political will; ReAct has had an added value both as a watchdog and advocate for stronger engagement and funding on global level, as a catalyst on country and regional level as well by giving technical support and be part of moving plans from being a document to implemented programs activities. With most NAPs coming to an end in 2022 and 2023, it is important for ReAct to strategically position itself to offer technical guidance and support as countries reflect and review lessons learned, in close collaboration with the countries and other implementation partners. ReAct Africa has already started consultations with countries such as Zimbabwe, Malawi and Kenya as they draft their NAPs for the next period. Assisting in different steps of this process will continue to be one of ReAct’s core activities.

On global level there is still lack of an adequate, well functioning and coordinated governance, ReAct have worked very hard to address this, being concrete and constructive but also by holding decision makers accountable. 2022 will be a momentum for moving this forward; there are many lessons to draw from COVID-19 when it comes to the need for the world to come together to tackle global health threats and pandemics. The new international instrument on pandemic prevention, preparedness and response, and the inclusion of ABR, will be an important process forward and ReAct has already started mobilizing and advocating in this process. But not less important is how Tripartite+UNEP, the rest of the UN organizations as well as GLG takes bold action. ReAct will be following this, always with LMIC needs in focus. During 2021 ReAct was quite active on working for a more needs based research and development-system. The report “Ensuring sustainable access to effective antibiotics for everyone, everywhere” was launched and has served as a basis for dialogue and advocacy efforts on many different platforms. To take on the challenging task to both explain how an “end to end”- approach to innovation would work and push for public needs driven solutions to fix the broken system is something that ReAct will continue to do also in the coming years. Ensuring sustainable access to effective antibiotics will remain ReAct’s vision.

Lastly, as mentioned several times in this report, communities and the civil society are critical enablers for responding adequately on ABR. During 2021, despite many limitations especially due to COVID-19, ReAct was part of mobilization and activities on local level in many different ways and in different parts of the world. Examples were Antibiotic Smart Community in India, One Health work at grass root actives in Latin America, etc. Movement building also took place together with civil society putting pressure at WHO and other institutions through the ARC and creating future ABR ambassadors both among students regionally and globally through online events such as innovation competitions on finding solutions to tackle ABR. ReAct will continue to take on this important task to make antibiotic resistance an issue known by everyone everywhere, with a focus on equity and bottoms up approaches.
A world free from untreatable infections