
Annual Report 2019

Global Engagement

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List of abbreviations

AFRO	WHO Regional Office for Africa
AHPSR	Alliance for Health Policy and Systems Research
AHRI	Armauer Hansen Research institute
AMRO	WHO Regional Office for the Americas
EARIMA	Eastern Africa Research & Innovation Management Association Secretariat (EARIMA)
EDCTP	European and Developing Countries Clinical Trials Partnership
EMRO	WHO Regional Office for the Eastern Mediterranean
ESSENCE	ESSENCE on Health Research initiative (Enhancing Support for Strengthening the Effectiveness of National Capacity Efforts)
EURO	WHO Regional Office for Europe
EVI	European Vaccines Initiative
FIC	Fogarty International Centre
FIND	Foundation for Innovative Diagnostics
GE	Global Engagement
HIV	Human Immunodeficiency Virus
HPPD	Health Product Profile Directory
HRP	UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction
IDRC	International Development Research Centre, Canada
JCB	TDR Joint Coordinating Board
LMICs	Low- and middle-income countries
LSHTM	London School of Hygiene and Tropical Medicine
MOH	Ministry of Health
NIH	National Institutes of Health
NMAIST	Nelson Mandela African Institute of Science and Technology, Arusha, United Republic of Tanzania
NTDs	Neglected tropical diseases
PAHO	Pan-American Health Organization
PDP	Product Development Partnership
PPC	Preferred Product Characteristics
R&D	Research and development
RCS	TDR Research Capacity Strengthening team
SARIMA	Southern African Research & Innovation Management Association
SDG	Sustainable Development Goal
SEARO	WHO Regional Office for South-East Asia
SESH	Social Entrepreneurship to Spur Health
Sida	Swedish International Development Cooperation Agency

SIHI	Social Innovation in Health Initiative
SORT IT	Structured Operational Research Training Initiative
SORT IT AMR	SORT IT course on Antimicrobial Resistance
STAC	TDR Scientific and Technical Advisory Committee
SWG	TDR Scientific Working Group
TDR	UNICEF /UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases
TPP	Target Product Profile
UHC	Universal Health Coverage
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WARIMA	West African Research and Innovation Management Association (WARIMA)
WHO	World Health Organization
WPRO	WHO Regional Office for the Western Pacific

Introduction

An essential part of the work of the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) is to engage with the global health community to promote and facilitate the role of research for development and to advocate for the use of high-quality evidence to inform policy. TDR is at the interface between research and health-care delivery. Embedded within the UN family through its co-sponsors: the United Nations Children's Fund (UNICEF), the World Bank, and the United Nations Development Programme (UNDP), this unique position allows TDR to create a bridge from local communities to the World Health Assembly to enable the broadest possible scope of dialogue and debate across the spectrum of health research – from priority setting to evidence-based policy-making at local, national, regional and global levels.

As part of TDR's strategy 2018–2023, the activities under Knowledge Management and Collaborative Networks and Engagement, as well as TDR Global and the Social Innovation in Health Initiative (SIHI), are grouped together under Global Engagement (GE) in the Director's office. The Global Engagement area of work also includes TDR's collaboration with key global health stakeholders within the World Health Organization (WHO), as well as other research activities of WHO and its regional offices. The TDR-hosted Secretariat of the ESSENCE on Health Research initiative is also part of the Global Engagement workstream.

The overall TDR costed plan for 2018–2019 (including GE activities) was reviewed and approved by the TDR Scientific and Technical Advisory Committee (STAC) in March 2017 and the Joint Coordinating Board (JCB) in June 2017.

2019 HIGHLIGHTS	Collaboration with WHO and other partners on research grants	US\$2 million was leveraged by partners to support 77 research grants awarded in 5 WHO Regions.
	Shaping the global health research agenda	A Health Product Profile Directory was launched to guide the development of products to combat neglected diseases and threats to global health.
	Advancing community-engaged social innovations in health	6 country hubs of the Social Innovation in Health Initiative are playing a leadership role in advancing social innovations through research.
	Leveraging the TDR Global community for mentorship and collaboration	5 researchers and 10 mentors were identified to pilot a TDR Global research crowdfunding challenge.

Objectives

TDR's approach to Global Engagement is to develop and employ strategies, frameworks, tools and platforms in the following areas:

1. Engagement of key global stakeholders, TDR co-sponsors, WHO regional and country offices, and WHO control and research programmes;
2. Creation of the TDR Global community and promotion of innovative tools for collaboration;
3. Advancement of social innovation in health approaches in support of universal health coverage (UHC) and primary health care renewal in low- and middle-income countries (LMICs);
4. Development of research policy to identify new approaches to support and finance research, and undertake knowledge management activities to improve the efficiency and maximize the impact of research for health;
5. Development and promotion of models of data sharing and open publications that support and promote research activities in LMICs; and
6. Support the ESSENCE on Health Research initiative by working with stakeholders and funders of research to develop and promote best practices in research management, standard methodologies, implementation research and approaches to monitoring and evaluation of impact.

Key achievements in 2019

Engagement with key stakeholders and WHO regional offices at the time of WHO transformation

- Joint activities were conducted with key stakeholders and co-sponsors, including research entities at WHO, for example, the UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP) and the Alliance for Health Policy and Systems Research (AHPSR). Collaboration with all six WHO regional offices is at an all-time high, and implementation of the joint small grants programme continues to be a success. A total of US\$ 2 million was leveraged from EDCTP, AHPSR, the SORT IT AMR programme and HRP.
- Joint activities identified the need for research to achieve universal health coverage. TDR is coordinating with its cosponsors, UNICEF, UNDP and the World Bank, on how best to integrate research into the UHC agenda.

A regional approach to engage the TDR Global community

- A new TDR Global communication strategy was developed to establish and sustain a connected community. A communications toolkit supported a new campaign in November 2019.
- Bottom-up approaches to community engagement were piloted via the establishment of TDR Global nodes within the TDR-supported Regional Training Centres in Africa, Asia and Latin America. Community engagement activities included the testing of a crowdfunding capacity strengthening event on innovation, and a crowdsourcing challenge on the topic of mentorship. The regional nodes helped advance mapping and profiling of TDR Global members.
- The TDR Global Ethiopia node was launched in August 2019 at the Armauer Hansen Research institute (AHRI) to enhance mentorship and support young scientists.

Expanding the Social Innovation in Health Initiative network to LMICs

- The SIHI country hubs in China, Latin and Central America, Malawi, the Philippines, South Africa and Uganda are playing a leadership role in engaging national partners and providing a platform to convene innovators, government and public sector representatives, researchers and other stakeholders to work together to advance social innovation in health.
- The country hubs started to embed social innovation practice and research in their respective institution programmes and at the national level. SIHI hubs in Latin and Central America and in the Philippines have initiated the dissemination of the social innovation approach in their respective regions. They completed mapping exercises identifying social innovations in the Andes area and in Indonesia, Malaysia and Viet Nam.
- Global health institutions and initiatives such as the Ahimsa Fund, Fondation Mérieux, Grand Challenges Africa and the Health Innovation Exchange led by UNAIDS, have embedded social innovation in their programmes, prompted by and in collaboration with TDR and SIHI.

Research policy and knowledge management

- TDR has continued to improve the R&D finance and modelling tool - Portfolio-to-Impact (P2I) and, working with Duke University and Policy Cures Research, published an updated analysis of the HIV, TB, malaria and neglected tropical disease (NTD) pipeline, as well as portfolio analysis of several product development partnerships (PDPs).
- A new online resource, the Health Product Profile Directory, was developed and launched to inform priority setting in health products for global health.
- TDR has worked to integrate knowledge management into the SORT IT course with a particular focus on the antimicrobial resistance.
- TDR provides the chair for all data access committees under the Infectious Diseases Data Observatory (IDDO), including the new resource to share Ebola data.
- The new publishing platform, TDR Gateway, has published 15 papers.

ESSENCE on Health Research initiative

- A new proposed mechanism for funders to jointly review their investments in research capacity strengthening in low- and middle-income countries and to enhance coordination has been developed.
- Implementation of the 2018–2019 ESSENCE workplan was completed as planned, with a focus on research management and implementation research.
- Increased visibility of ESSENCE in the global health research landscape with numerous references to its work, achievements and as an example of engagement with partners.

Summary progress description

An essential part of TDR's engagement with the global health community is to promote and facilitate the role of research for development and to advocate for the use of high-quality evidence to inform policy. Table 1 summarizes the progress achieved against the Global Engagement workplan.

Table 1. Global Engagement workplan – Overall progress

<i>Ongoing expected results by outcome</i>	<i>Indicators and progress against targets</i>
2.1.1.2 WHO regional office collaboration and small grants: i) small grants schemes operationalized in at least five WHO regional offices; and ii) functional collaboration frameworks with at least five regional offices established.	<ul style="list-style-type: none"> Evidence of collaboration framework effectiveness based on successful joint projects and activities with at least five regional offices. TDR and all six regional offices worked on various joint activities and held an annual joint meeting. TDR engaged in meetings of the regional offices. Regional offices will provide and manage at least 40 small grants in order to catalyse health research in the region on regional priorities. more than 40 small grants were identified and funded.
2.2.1 Shaping the research agenda: i) reports and resources based on a scoping review in the area IR/OR research to further map partners, priorities, ongoing activities and TDR work in this context; and ii) research priority setting exercise supported.	<ul style="list-style-type: none"> By 2019, three reports published. One report analysing HIV, TB, malaria and NTD pipelines published in 2018 was updated in 2019. In addition, P2I was used to analyse the R&D portfolios of FIND, the TB Alliance and EVI.
2.2.2 Capacity strengthening to bring research evidence into policy: i) methodology developed and/or adapted from existing approaches to enable appropriate generation of translation mechanisms; ii) LMICs take the lead on the development of systematic reviews, research synthesis and policy briefs on issues related to infectious diseases of poverty; iii) data sharing in support for capacity building and development of policy.	<ul style="list-style-type: none"> Four workshops/training events were held in 2019. On track as part of the SORT IT AMR programme launched in 2019 involving participants from seven countries. By end 2019, two reports or publications on knowledge management methodology: A report on good practice in evidence-informed policy-making was published in January 2018, following a workshop in December 2017. By 2019, at least four evidence-to-policy reports and briefs finalized and published: six policy briefs were produced in Malawi. New policy briefs will be developed as part of SORT IT AMR programme to be launched in 2019. By 2019, at least two data sharing initiatives supported: TB clinical trial data and Ebola data platform are now both live. By 2019, at least two policy documents published: one new policy on integration of hypertension screening within HIV clinics is being piloted in three health districts in Malawi.
2.3.1 Collaborative networks (ESSENCE on Health Research initiative) and engagement with other global health initiatives: i) tools and reports used to inform policy and/or practice of global/regional stakeholders or major funding agencies; ii) funding agencies continue to engage in policy dialogue with each other and with LMICs; iii) LMIC capacity in research management, monitoring and evaluation strengthened; and iv) cases of TDR's research, research capacity strengthening and knowledge management activities benefit and are shaped by the global health research agenda.	<ul style="list-style-type: none"> Two tools and reports used to inform policy and/or practice of global/regional stakeholders or major funding agencies. A survey of funders on implementation research was conducted and a draft document developed; the costing document is in the process of revision.

Ongoing expected results by outcome	Indicators and progress against targets
<p>1.3.5 Promotion and research on social innovation in health care delivery: i) social innovation research hubs in LMICs established and functioning; and ii) the Global South Social Innovation in Health Network is maintained.</p>	<p><i>By 2019, at least three social innovation research hubs in LMICs are established and have effectively institutionalized social innovation as a multi-disciplinary approach in their organization:</i></p> <ul style="list-style-type: none"> i) Six SIHI country hubs, in China, Colombia, Malawi, the Philippines, South Africa and Uganda, have been effectively advancing social innovation in their respective countries. The hubs in China, Colombia and the Philippines have institutionalized social innovation in either their organization or their government: <ul style="list-style-type: none"> - SESH, the SIHI hub in China, is financially sustainable. It supports the development of social innovations and has established a crowdsourcing clinic with training tools to support other hubs and partners to effectively engage communities. - CIDEIM, the SIHI hub in Colombia is working in collaboration with PAHO and has embedded social innovation research and training activities in its programmes, including the Regional Training Centre supported by TDR (e.g. a community based participatory research training course). - The University of the Philippines in Manila has fostered the institutionalization of social innovation at the government level (Philippines Council for Health Research launched the annual Castillo Award) and at the regional level (Asia NDI now engaging in social innovation). ii) The SIHI network is expanding through regionalization in LMICs and through the creation of partnerships with global health actors (Ahimsa Fund, Bertha Centre for social innovation, Fondation Mérieux, UNAIDS Health Information Exchange and WHO UHC).
<p>ER 2.3.3 TDR Global: i) novel tools to engage and communicate with TDR Global community ii) member survey to identify interests for collaboration; and iii) distribution maps of TDR Global members.</p>	<p>By 2019, pilot test novel engagement tools and identify the most effective ones.</p> <ul style="list-style-type: none"> ○ In 2018 a number of community engagement tools were piloted: TDR Global Talks, webinars (e-talks), LinkedIn discussion, country-focused mobilization, thematic global mobilization, local problem-solving workshops, intern scheme, and crowdsourcing (guide published and contest to boost gender equity in research). ○ In 2019, a regional approach was initiated and the TDR supported Regional Training Centres in Africa, Asia and Latin America took a lead role in community engagement at the regional level: awareness campaign, crowdfunding challenge, crowdsourcing challenge for mentorship. <p>In 2018-2019, have a geographical distribution map of TDR Global members.</p> <ul style="list-style-type: none"> ○ Maps created for geographical distribution of TDR Global members. ○ In 2019, further research was conducted to complete the member information regarding gender, country and contact information. Around 1000 additional data points were obtained, and the picture is now relatively complete.

Progress description in 2019 and plans for 2020-2021

The Global Engagement workplan is distributed under various expected results. A new programme of work began in 2019 to provide structured operational research training in six countries to utilize routinely collected data to combat antimicrobial resistance.

ER 2.1.1.2: Regional office collaboration and small grants

TDR has a history of schemes supporting researchers and public health practitioners, in collaboration with the WHO regional offices, through small grants (ranging from US\$ 10 000 to US\$ 20 000). Since 2014 the programme's focus has been on implementation research and each region has taken more responsibility for jointly identifying with TDR the research priorities to be funded. The small grants programme embodies the overall TDR strategy by incorporating research capacity strengthening, research for implementation and global engagement. The programme has included all WHO regions since 2016.

Progress in 2019

New calls issued jointly with AMRO, EMRO, and WPRO in 2018 were completed and projects selected and funded. New call by AFRO, in collaboration with EDCTP, issued in late 2018 were reviewed and funded in 2019. The call with PAHO was done in collaboration with AHPSR. A special call was issued with a focus on implementation research for antimicrobial resistance in the WHO European Region and included priority countries of the SORT IT AMR programme. In late 2019, TDR partnered with HRP to develop a call for research on migration and health in the Americas. In addition, three capacity building workshops with small grant grantees were organized to provide them with an opportunity to take the MOOC in implementation research, particularly in the WHO regions of Europe, the Americas and the Eastern Mediterranean.



In 2017, TDR and SEARO initiated a review of the small grants programme in collaboration with all regions to assess the outputs, established collaborations and links to public health impact of the grants supported since 2014. The outcomes of the review were presented to the regional focal points and changes were implemented in 2018. In addition, in late 2019 a consultant was engaged to help further review the programme in consultation with all regional office focal points. The results of this review will help shape the programme. Included below is a list of priority areas of calls by region (developed in collaboration with each WHO regional office) and the number of applications received and funded.



Priority research areas for the WHO regional office calls

AMR Implementation Research in European Region in collaboration with SORT IT priority countries in Asia, Africa and Latin America (under review)

This call focused on antimicrobial resistance, which provided an opportunity to synergize it with the call planned under the SORT IT AMR programme. A single call was issued for countries in the WHO regions of Europe, Africa, South-East Asia and the Americas. The objectives of the call are to strengthen the research capacity of relevant individuals and institutions in countries in AMR, to generate new knowledge, solutions and implementation strategies that can be applied by countries for the control and elimination of infectious diseases, and finally to encourage intersectoral dialogue and a one health approach.

EMRO (60 applications, 15 funded)

Proposals had to include one of the following areas:

Tuberculosis

- Intervention and implementation research to evaluate new tools (e.g. rapid diagnostic tests, new drugs, shorter regimens) for diagnosis and treatment of TB;
- Innovative interventions to increase TB case detection including co-infections (e.g. TB/HIV); Evaluation of new models and interventions for ambulatory multidrug-resistant TB (MDR-TB) treatment; or
- Research in the field of TB elimination.

Malaria

- Evaluation of innovative strategies for effective involvement of various types of private providers with the aim of ensuring quality through a combination of regulation, communication, monitoring of products and services and involvement in malaria surveillance;
- Studies on *P. vivax* burden in African countries of the Eastern Mediterranean Region through a combination of community prevalence surveys (also using polymerase chain reaction (PCR)) and health facility studies, especially in the disease endemic countries multi-country study conducted in Djibouti, Somalia and Sudan encouraged; or
- Research on Glucose-6-phosphate dehydrogenase (G6PD) deficiency prevalence – assessing different methods of testing to guide treatment with primaquine, especially in malaria elimination and in malaria-free countries in the Eastern Mediterranean Region.

Leishmaniasis

- Intervention and implementation research to evaluate effectiveness of topical treatment (cream) for cutaneous leishmaniasis due to *L. tropica*; or
- Studies evaluating innovative preventive measures against leishmaniasis.

Schistosomiasis

- Studies on sensitive transmission assessment techniques for certification of the interruption of transmission of schistosomiasis in former controlled foci. These techniques may be applied on humans, snails or water.

AMRO, in collaboration with AHPSP and TDR (70 applications, 13 funded)

For the first time, TDR collaborated with AMRO/PAHO and AHPSP to provide grants to researchers and decision-makers to examine how to improve health systems in the Americas.

The grant programme, “Embedding Research for the Sustainable Development Goals”, supported implementation research projects in 2018 and 2019 and sought to facilitate improvements in health programmes, policies or systems by generating knowledge through research that is embedded within existing policy and decision-making systems in Latin America and the Caribbean. This is the first time TDR has collaborated with these partners to focus on an embedded research approach to improve health delivery within national health programmes. The project aims to identify gaps in research capacity and barriers to effective health system performance that are the key steps toward stronger health systems. The grants were awarded to improve programme implementation in public institutions, to improve the efficiency of health policies and programmes, to incorporate research into those programmes, to learn more about how to conduct research for implementation, and to facilitate evidence-based health decision-making.

WPRO (77 applications, 10 funded)

Proposals had to include one of the following areas in the prevention and control of infectious diseases of poverty, including malaria, tuberculosis, NTDs such as dengue, lymphatic filariasis, soil-transmitted helminthiasis, food-borne trematode infections, schistosomiasis, echinococcosis, cysticercosis, leishmaniasis, yaws, trachoma and leprosy. Additionally, they should address programmatic aspects such as:

- Knowledge gaps related to an operational or programmatic issue that has a direct policy and/or programmatic relevance; or
- Health systems, health service delivery, community-based approaches or qualitative research topics in the context of the diseases listed above.

AFRO, in collaboration with EDCTP and TDR (290 applications, 30 funded)

Proposals needed to address one of the illustrative research areas below:

- **Community case identification and management of illnesses** including HIV/AIDS, malaria, tuberculosis, diarrhoea, lower respiratory tract infections, yellow fever, and neglected tropical diseases: This includes strategies to ensure efficient case identification and management of one or many diseases, including solutions to overcome specific obstacles for efficient community case management. Proposals may address detection, compliance issues retention and treatment completion, or intervention to increase treatment completion rate; or
- **Community involvement in the delivery of health interventions:** This covers challenges associated with community involvement and participation in the delivery of public health interventions in different populations. This may include aspects such as community ownership and sustainability of the interventions, how to improve uptake of services in the communities, and how to achieve greater involvement and participation of communities in the delivery of interventions to their populations.

Remaining challenges

The small grants programme is implemented in close collaboration with the WHO regional offices, which have varying capacity to implement joint calls, do their reviews, obtain ethics approvals and final approval of the proposals. TDR will continue to adapt to the needs of each regional office during programme implementation and will continue to balance between the need to develop activities jointly and use the programme as an effective tool in regional collaboration. There have been opportunities for capacity strengthening workshops on implementation research that helped facilitate implementation of the grants. Efforts will be made to continue with these workshops.

Contributions towards TDR key performance indicators

Partnerships and collaborations:

All WHO regional offices plus EDCTP, HRP and AHPSR and the SORT IT AMR programme.

Estimated leverage created by this project:

A total of US\$ 2 million was leveraged from EDCTP, AHPSR, SORT IT AMR programme and HRP.

Gender aspects and vulnerable populations:

Small grants were at 50/50 for men and women investigators selected.

Related news:

[Embedded implementation research grant awards announced](#)

[TDR/EMRO Small Grants Scheme awards announced](#)

[Grants awarded in the Western Pacific Region to address health system bottlenecks](#)

Plans for 2020-2021

Based on the review of completed small grants, further priority setting processes will be developed jointly with each regional office and will be undertaken to ensure that future calls address joint TDR and regional priorities. The review of the programme started in late 2019 will identify how the grants are making a difference in countries and health systems. The advocacy impact of small grants in regions where research is not well funded has been enormous and this will continue through additional policy dialogue with each regional office. Further opportunities will be explored with AFRO, EURO and SEARO based on successful policy dialogue and under the umbrella of regional priority-setting processes. For example, emphasis will be placed on using the priorities of advisory committees on health research in regions to which TDR has been successfully linked since 2016.

ER 2.2.1: Shaping the research agenda

Shaping the research agenda addresses the health issues affecting vulnerable and neglected populations, within the framework of the Sustainable Development Goals. It does this by:

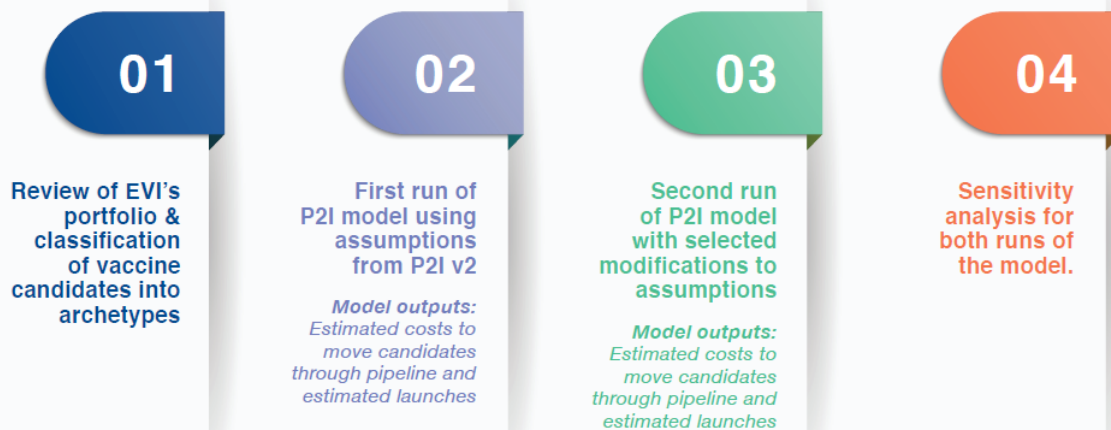
- Engaging with many stakeholders, including WHO control programmes and regional offices, to identify and support demand-driven research priorities.
- Maintaining a governance system that brings together the disease-affected countries and research funders for joint decision-making and complementarity in programme development.
- Developing policy and new approaches to support and finance research and development through the commissioning of research and scoping studies.

Progress in 2019

In 2016 TDR published a new tool developed for health product portfolio analysis which addresses the persistent need to increase R&D activity for product development in the poverty related neglected diseases. The Portfolio-to-Impact (P2I) tool was used by Duke University and Policy Cures Research to develop the first complete analysis of the HIV, TB, malaria and NTD pipeline, using data from 2017. This analysis was updated in 2019 and presents a like-for-like comparison with those 2017 data. The analysis shows that, using the same list of 35 diseases and 5 disease categories, there would be an increase of 68 additional launches from the 2019 pipeline (by 2031) over the expected launches from the 2017 pipeline. The additional cost to move candidates through the pipeline would be about US\$ 3.6 billion (a total of US\$ 19.9 billion for the 2019 pipeline, compared with US\$ 16.3 billion for the 2017 pipeline). A key finding is that based on the 2019 pipeline, P2I v.2 modelling suggests that vaccines will be launched for both HIV/AIDS and TB. In the previous study, based on the 2017 pipeline, launches of HIV and TB vaccines were not expected (i.e. there was a probability of launch of under 1.0 for each). A report and an academic paper will be published in the first quarter of 2020.

Following an open call, TDR supported the use of P2I by three PDPs (TB Alliance, FIND and the European Vaccine Initiative) to analyse their portfolios. This has validated the utility of P2I and an R&D modelling tool. Improvements include the integration of more data supporting the development of diagnostics and finding in attrition rates. In addition, the Global Health Centre based at the Geneva Graduate Institute, undertook a review of the findings generated by using the P2I modelling tool. Their findings based on these analyses and qualitative interviews where the difference lies between commercial and non-commercial R&D for health product development. This work has been used as a case study by UNDP as part of its Access and Delivery Programme. All of this work was published on the new TDR Gateway open access publishing platform.

FOUR KEY PHASES IN A PORTFOLIO ANALYSIS CONDUCTED BY THE EUROPEAN VACCINE INITIATIVE (EVI)



SOURCE: GUNN A, BANDARA S, YAMEY G ET AL. PIPELINE ANALYSIS OF A VACCINE CANDIDATE PORTFOLIO FOR DISEASES OF POVERTY USING THE PORTFOLIO-TO-IMPACT MODELLING TOOL. F1000RESEARCH 2019, 8:1066 ([HTTPS://DOI.ORG/10.12688/F1000RESEARCH.19810.1](https://doi.org/10.12688/f1000research.19810.1))

EVI'S CUMULATIVE COST AND LAUNCH PROBABILITY PER DISEASE BASED ON P2I MODEL PROJECTIONS

DISEASE	COST (US\$, MILLIONS)	CUMULATIVE EXPECTED LAUNCHES
MALARIA	165.62	0.098
LEISHMANIASIS	47.77	0.02
SHIGELLOSIS, ETEC	33.96	0.07
NIPAH	73.96	0.22
ZIKA	73.96	0.22
PLACENTAL MALARIA	75.08	0.05
TOTAL	470.35	0.69

TDR developed and launched the Health Product Profile Directory (HPPD), the first online directory of its kind published anywhere in the world. It brings together health profiles (documents that describe Preferred Product Characteristics (PPC) and Target Product Profiles (TPP)) in a searchable database.

The information contained in the directory should inform any discussion of R&D priorities in global health, particularly the need to include considerations of access such as price, at an early stage in the innovation cycle.



Analysis of the HPPD shows that the 215 profiles contained therein mainly describe R&D priorities in infectious diseases, with the majority describing the needs for HIV, TB and malaria. The emerging diseases contained in the WHO R&D Blueprint, including Ebola, Zika and Lassa Fever, are also covered. However, less than 2% of these strategic documents cover noncommunicable diseases or family and women's health. So, even with this limited initial listing, the HPPD suggests there is a clear need to improve the description of R&D needs (as product profiles) unique to the developing world in the noncommunicable disease area. The content of the HPPD was updated towards the end of 2019 in order to improve the submission process for profiles covering medical devices. By December 2019 the HPPD contained 233 profiles.

TDR also led on an analysis of research priority setting methods used in WHO, with a paper being published in 2018. In 2019, the Chief Scientist requested that TDR lead a working group be established to provide internal guidance on research priority setting methodology.

Contributions towards TDR key performance indicators

Partnerships and collaborations:

Portfolio-to-Impact Model (P2I): Duke University, Policy Cures Research, TB Alliance, FIND, EVI, Global Health Centre, the Bill and Melinda Gates Foundation and UNDP Access and Delivery Partnership.

The Research Fairness Initiative report was conducted with the Council on Health Research for Development (COHRED).

Health Product Profile Directory: ISGlobal, Barcelona Institute for Global Health, Spain.

Gender aspects and vulnerable populations:

The RFI provides measures to estimate fairness within TDR processes towards gender equity.

Publications:

[TDR Research Fairness Initiative report 2018](#)

Terry, RF, Plasència, A and Reeder, JC. Analysis of the Health Product Profile Directory – a new tool to inform priority setting in global public health.

<https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-019-0507-1>

Terry, R.F., Charles, E., Purdy, B. *et al.* An analysis of research priority-setting at the World Health Organization – how mapping to a standard template allows for comparison between research priority-setting approaches. *Health Res Policy Sys* **16**, 116 (2018) doi:10.1186/s12961-018-0391-0

[Gunn A, Bandara S, Yamey G et al. Pipeline analysis of a vaccine candidate portfolio for diseases of poverty using the Portfolio-To-Impact modelling tool \[version 1; peer review: 1 approved with reservations, 1 not approved\]. F1000Research 2019, 8:1066](#)

Related news:

[Smarter research & development to tackle global health priorities](#)

[TDR's role in the Access and Delivery Partnership: maximizing the impact of health innovations](#)

[TDR publishes assessment of its research fairness](#)

Plans for 2020-2021

TDR will support four more studies using the P2I to analyse the R&D portfolios of organizations working with health products for global health.

An analysis of TDR published outputs from 2008 to 2019 will be undertaken by Digital Sciences. This will integrate data from grants, patents and citation analysis. The analysis will provide a breakdown of TDR-supported research by disease, research type (basic, applied, clinical, operational and implementation), the first and last author, country of institution and networks of collaboration. The work will show the impact of TDR-supported research and trends and changes in the shape of the TDR research portfolio.

TDR will lead on the development of guidance for research priority setting at WHO.

In 2018, TDR became the first research funding agency to produce a Research Fairness Initiative (RFI) report. The RFI report will be updated in 2020.

ER 2.2.2: Evidence to policy

This forms part of strengthening the research system: innovating and supporting new approaches that improve the efficiency and maximize the impact of research for health by:

- Facilitating equitable open innovation through, for example, platforms to share and analyse research data and research tools, and open access to research literature;
- Building capacity in the translation of research evidence to inform policy; and
- Supporting open innovation and greater sharing of research data.

Progress in 2019

In addition to the work completed in 2018 which developed a Knowledge Translation Platform within the Ministry of Health in Malawi, TDR has been working to embed knowledge management into a new module for the SORT IT course, with initial work focussing on the SORT IT courses combating antimicrobial resistance. Knowledge management to ensure the outputs of the operational research have the best opportunity to inform policy and practice were introduced to participants in module 1 and the framework for module 4 is being developed. The countries selected in this first round of support are: Colombia, Ecuador, Ghana, Myanmar, Nepal, Sierra Leone and Uganda.

Work has also continued with the Infectious Diseases Data Observatory to create ethical and efficient platforms to share clinical research data for malaria, helminths, Schistosomiasis and Ebola. TDR provides the chair to the data access committees. TDR has used this experience to advise HRP on the technical, ethical and legal issues that need to be addressed as it explores the development of a data sharing platform for large cohorts of pregnant women tracked during the outbreak of Zika virus in 2016.

TDR has worked with Cochrane to support 26 participants from low- and middle-income countries at two Cochrane meetings looking at sharing good practice in the methodology of developing and disseminating systematic reviews.

Contributions towards TDR key performance indicators

Partnerships and collaborations:

Various ministries across one health working on combating antimicrobial resistance.

The Cochrane Collaboration

Publications:

[Terry RF, Littler K and Olliaro PL. Sharing health research data – the role of funders in improving the impact \[version 2; peer review: 3 approved\]. F1000Research 2018, 7:1641](#)

Related news:

[New data platform supports global control of schistosomiasis and soil-transmitted helminthiases](#)

Plans for 2020-2021

In 2020 the majority of TDR's work in evidence-informed decision-making will be integrated into the SORT IT AMR programme.

ER 2.3.1: Collaborative networks and engagement with global health initiatives

The ESSENCE on Health Research initiative, to which TDR provides technical support, continues to be unique within the global health architecture, producing notable achievements. ESSENCE is an effort to harmonize internationally-funded research programmes and align them with the priorities of disease endemic countries and the principles of aid effectiveness. While the focus of ESSENCE is on harmonization of research capacity strengthening, by doing so, it contributes positively to the more complex efforts of harmonizing research funding overall.

Table 2 summarizes the objectives and deliverables for 2019. Building on the success of various good practice documents developed by ESSENCE, TDR facilitated harmonization efforts of ESSENCE members with their support to research management and other important aspects of the research environment in general. Following review of the ESSENCE@7 initiative which was completed in 2016, members revised the main document *Essentials of ESSENCE*, developing a new 2018–2019 workplan which was successfully implemented in 2019. The main focus of the workplan is on research management and implementation research. In addition, ESSENCE was mentioned in a major report focusing on coordination of research for infectious disease outbreaks and was requested to develop a mechanism to review investments from funders in research capacity building. The sub-committee of ESSENCE worked together with the WHO Observatory on Health Research and World RePORT to develop this mechanism. A consultation was convened at WHO in March 2019 to further develop the mechanism that will allow funders to better coordinate their investments. The Steering Committee and co-chairs continued to lead the efforts of the initiative and demonstrated substantial interest by member agencies in the initiative. In addition to results and deliverables, ESSENCE plays an important advocacy function in the global health research arena by proving that collaboration and harmonization of efforts is possible and can be effective, especially in the area of the Sustainable Development Goals. The TDR Secretariat continues to play a critical role in the success of the initiative and has been acknowledged by ESSENCE members as an indispensable part of its success.

Table 2. ESSENCE objectives and deliverables in 2019

Objectives	Achievements and progress
ESSENCE good governance and management	<p>ESSENCE has engaged more members with whom there is close interaction and a sense of partnership, including several new member agencies.</p> <p>Two meetings were held in 2019 to monitor progress of the initiative, including a standalone face-to-face meeting of members hosted by IDRC. The Steering Committee (co-Chair from FIC/NIH and Sida, plus Wellcome Trust, USAID, EDCTP, Institut Pasteur, HRP and TDR) conducted monthly teleconferences.</p>
Enhanced policy dialogue between funders of research for health and grant recipients for better shared understanding of funding opportunities, needs of LMIC scientists and broader research ecosystem challenges	<p>ESSENCE engaged with African health research funding agencies/councils, including policy dialogue at the annual Southern African Research and Innovation Management Association (SARIMA) conference which identified strategic directions for potential collaboration. A mechanism to enhance coordination of investments from funders in research capacity has been developed.</p>
Provide mechanisms for funders to share, discuss and sustain coordination of their respective programming, as well as inform LMIC scientists of funding opportunities	<p>ESSENCE presentations at several meetings/conferences promoted harmonization, coherence and alignment principles through stakeholder panels addressing research capacity strengthening needs, opportunities and modalities of funding. Efforts continued to collect and make available to members information on various initiatives/projects and activities (e.g. through the World RePORT). Members receive regular communications with structured updates on activities. ESSENCE meetings and other informal gatherings on capacity building took place throughout the year.</p>
Identify and share good practices on specific aspects of research between funders and with LMIC scientists	<p>The good practice document on costing is being revised. A survey of funding agencies and grantees was conducted and focus groups organized. Draft implementation science good practice document was developed and is being reviewed and major stakeholders consulted. Research management and implementation research/science was identified as a priority area and working groups were established in late 2017 to continue to advance the work in this area.</p>
Communicate successes, lessons learned, and good practices (ESSENCE documents) in LMIC-based health research management to increase its use and impact	<p>A good practice document on the impact of health research on development was completed in 2017 and was disseminated in 2018-2019. The 2011 edition of the Planning, Monitoring and Evaluation Framework good practice document has been updated. A Spanish version of the good practice document on costing of research (currently under revision) has been completed. The new implementation science good practice document is under development.</p>

Contributions towards TDR key performance indicators

Partnerships and collaborations:

ESSENCE members continue to include a broad range of funding agencies in high- and low- and middle-income countries. Engagement of various parts and divisions of ESSENCE member funding agencies has increased.

Estimated leverage created by this project:

US\$ 250 000 was leveraged mainly through voluntary support provided by ESSENCE members to host a meeting to discuss revision of the good practice documents, as well as to develop a mechanism to coordinate funders' capacity building efforts (NIH/FIC, IDRC and the African Academy of Science all contributed)

Gender aspects and vulnerable populations:

Four women and three men are members of the ESSENCE Steering Committee.

Training:

Workshops on research management were held at SARIMA, EARIMA and WARIMA.

Related news:

[ESSENCE Brochure](#)

[Mechanism to review investments in capacity building](#)

Plans for 2020-2021

The 2020–2021 workplan will be developed and approved by the ESSENCE members in early 2020. The focus on research management and implementation research will continue, led by the established working groups. Additional work will expand research management support in LMICs, a priority issue for all funding agencies. More emphasis will be placed on the dissemination of good practice documents and additional capacity building activities will take place to support the use of good practices.

ER 1.3.5: Promotion and research on social innovation in health care delivery to combat infectious diseases of poverty

The Social Innovation in Health Initiative (SIHI) is a network of partner institutions and a community of stakeholders established in 2014 through TDR's leadership, in collaboration with the University of Cape Town's Bertha Centre for Social Innovation and Entrepreneurship, the University of Oxford, the Skoll Centre for Social Entrepreneurship, and the London School of Hygiene and Tropical Medicine (LSHTM). Further, in 2016 the network expanded to engage LMICs as implementing partners and SIHI country hubs were established at the University of the Philippines, the University of Malawi, Makerere University in Uganda, the Centro Internacional de Entrenamiento e Investigaciones Médicas (CIDEIM) in Colombia and the Social Entrepreneurship to Spur Health (SESH) project. In addition, SIHI collaborates with various contributing partners, such as Fondation Mérieux, the Ahimsa Fund, the WHO Department of Service Delivery and Safety, the Pan American Health Organization, UNAIDS, AFRO, the United Nations University-International Institute for Global Health, and UNICEF, to advance and promote social innovation activities in the Global South. SIHI expansion to low- and middle-income countries is illustrated in Figure 1.

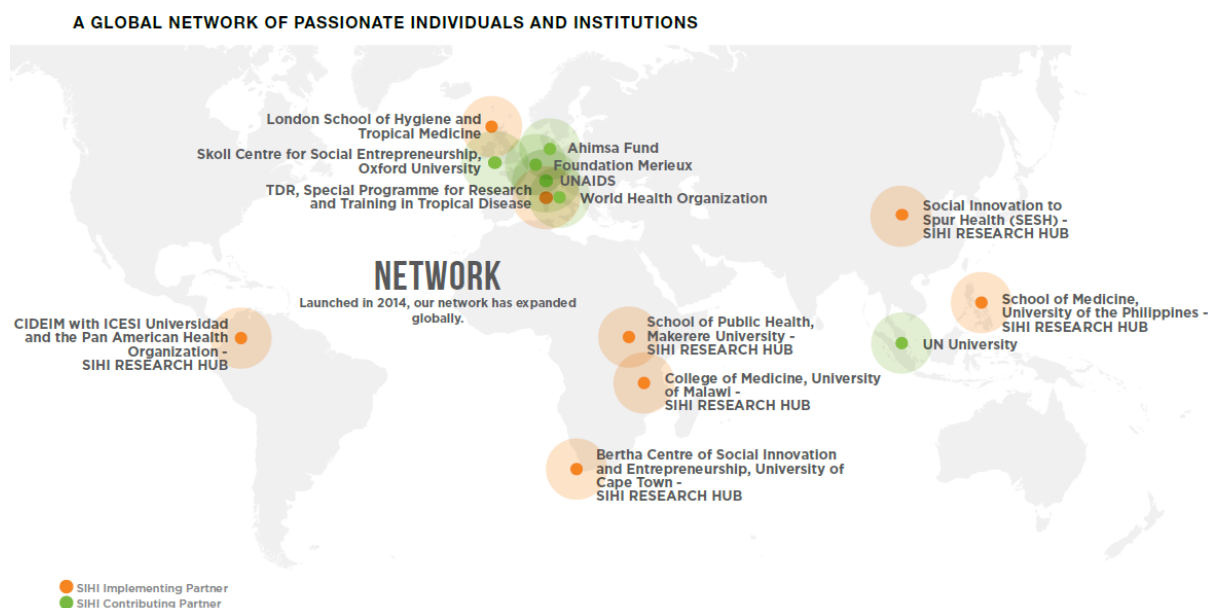


Figure 1. SIHI network to advance social innovation in health through research, capacity strengthening and advocacy

The initiative aims to unlock the capacity of all health system actors and stakeholders, including innovators, policy-makers, frontline workers and academics, to work in collaboration and advance community-engaged social innovation in health care delivery in the Global South. This is done through i) research to best understand what works, what doesn't, and how to sustain, replicate or scale social innovations; ii) capacity strengthening to ensure that countries in the Global South take the lead in the promotion of and research on social innovation; and iii) advocacy to catalyse a global culture change and influence the health agenda at the local, national, regional and global levels. SIHI is aligned with the WHO Framework on integrated people-centred health services. It contributes directly to the main pillars of universal health coverage. Through its community-based, multidisciplinary and multisectoral position, it strengthens national health systems and supports the achievements of the Sustainable Development Goals (see Figure 2).

Progress in 2019

NURTURING COLLABORATIONS AT THE GLOBAL LEVEL TO PROMOTE AND SUPPORT SOCIAL INNOVATIONS IN HEALTH IN LMICS

In 2019 TDR and SIHI became partners of the [Health Innovation Exchange](#) led by UNAIDS and launched on the sidelines of the World Health Assembly in Geneva in May 2019.

The Health Innovation Exchange provides a new platform aiming at leveraging the potential of innovations to improve health for all. This new initiative links innovators to investors and innovations to implementers. Two social innovations collaborating with SIHI hubs in [China](#) and [Malawi](#) were selected and showcased: (i) "[Pay-it-forward: contagious kindness in health](#)" developed by SESH, the SIHI hub in China (an innovative financing of a gonorrhoea/chlamydia screening programme); and (ii) [Chipatala cha pa Foni or the Health Centre by Phone](#), an innovation identified and studied by the SIHI Malawi hub (mHealth initiative bridging access of rural residents in Malawi to expert health care

through a toll free health and nutrition hotline, as well as tips and reminder messaging services). A panel discussion on “Leveraging social innovation for effective systems for health” was organized and facilitated by TDR. It convened various global, regional and national health actors from public, private and civil sectors to share and discuss ways to advance social innovation in health through advocacy, capacity strengthening and research.

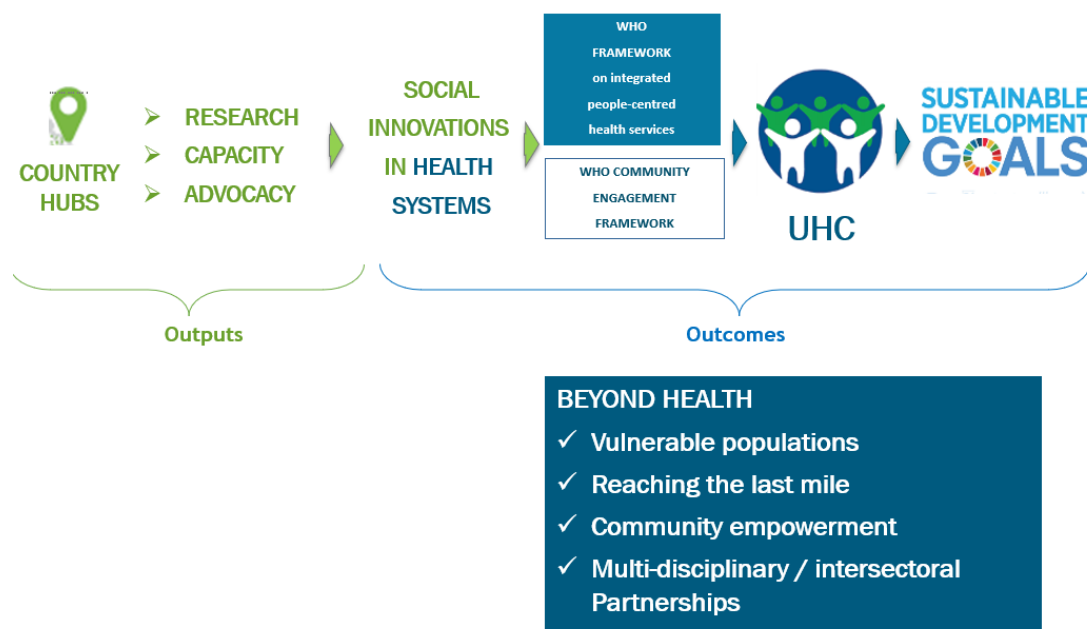


Figure 2. The SIHI results chain: a systems approach

TDR participated in the Sida Science Days to showcase SIHI and promote social innovation research to accelerate achievement of the Sustainable Development Goals related to health and beyond.

Sida Science Days was hosted at the Swedish International Development Cooperation Agency (Sida) in May 2019. The event provided a platform for Sida partners to meet and share experiences and thoughts on topics such as academic freedom, open access and how science can improve the lives of the most vulnerable. TDR contributed to the session “How can research be put in use” through a presentation and panel discussion of its work and approach to advance social innovation in health, and facilitated a group discussion on how to use implementation research and embedded research to make a change.

Global health actors embedded social innovation in their respective programmes with the support of and in collaboration with TDR and SIHI

- For the past three years TDR and SIHI have collaborated with [Ahimsa Fund](#) to embed social innovation in the Ahimsa Forum programme. During the [4th Ahimsa Forum](#) held in 2019, the Ahimsa RoundTable was launched to offer an opportunity to bring social and technology innovators together and to create new partnerships.
- In 2019 [Fondation Mérieux](#) contributed actively in SIHI activities, supporting the organization of the SIHI hub network meeting in Kampala and promoting social innovation within their portfolio of projects.

- [LSHTM](#) and Fondation Mérieux invited TDR to be part of the advisory committee of the annual “[Advanced Course on Diagnostics](#)” (ACDx) in order to embed social innovation in their programmes and organize a social innovation session. ACDx advocates for the role and the value of diagnostics in global health and builds capacity for critical decision-making on diagnostics in developing countries through partnerships and networks.
- As a result of the Sida Science days, collaboration with [Grand Challenges Africa](#), led by the African Academy of Sciences, has been initiated. Social innovation has been included in their funding programme and innovations identified and studied by the SIHI hubs in Malawi and Uganda were invited to bid.

SIHI country hubs in LMICs play a leadership role in creating an enabling environment for social innovations to thrive

SIHI country hubs play a leadership role in advancing social innovation in health through research, advocacy and capacity strengthening. As research institutions, they are well positioned to provide a unique platform to convene social innovators, government and community representatives, researchers and other stakeholders to work together and nurture social innovations. They create an enabling environment for social innovation to thrive.

They engage in a process to identify, showcase and study local community-engaged and citizen-led social innovations in health. To date more than 200 social innovations have been identified in LMICs and more than 40 case studies have been conducted.

Country hubs also build capacity and embed research in social innovations to enhance their effectiveness and identify mechanisms to replicate or scale them up. Importantly, they engage with key partners at country level to institutionalize social innovation in national systems.



Figure 3. The Social Innovation in Health Initiative approach and key achievements

SIHI PHILIPPINES HUB: LAUNCHING THE DISSEMINATION OF SOCIAL INNOVATION APPROACH IN ASIA

Planting the seeds and building partnerships

- In 2019 the hub actively participated in various international events. These included the launch of the Health Innovation Exchange at the 72nd World Health Assembly; a WHO/WPRO partners forum; a hackathon to help develop the UNDP Philippine Accelerator Lab; and the Ahimsa forum 2019 for which a member of the SIHI Philippines was selected to participate in a panel discussion on innovation with Michael Moller, the Director General of the United Nations office at Geneva, and to showcase the SIHI Philippines hub.
- Organized a partners' meeting convening 28 participants from the academe, government institutions, nongovernmental organizations, private sector and student organizations. They explored the partner organizations' priorities, adopting social innovation into their agenda, possible collaborations and the role of the SIHI Philippines hub.
- The hub participated in the ASEAN-NDI research uptake meeting to showcase the hub's activities and to support ASEAN-NDI to embed social innovation in its programmes.

Conducting and fostering research to advance social innovation

- The 2019 Gelia Castillo Award for Research on Social Innovations in Health was launched by the Philippine National Health Research System, in collaboration with the SIHI Philippines hub.
- Among the four selected innovations from the call, two case studies on social innovations were published to showcase the innovations and the factors influencing their effectiveness and sustainability. Two more case studies are currently undergoing revision.
- *A step towards the dissemination of social innovation approach in the region* - With the support of the British Council, the hub conducted a survey to map social innovation and the social entrepreneurship research and teaching landscape in Indonesia, Malaysia, the Philippines and Viet Nam.

Embedding social innovation in medical education

- *Embedding social innovation in university training curricula* – an Introductory Module on Social Innovation in Health was rolled out at: (i) the University of the Philippines Manila-School of Health Sciences in Palo, Leyte; and (ii) the Drs to the Barrios (DTTB) programme of the Department of Health, training 160 physicians.

Leading SIHI network communications activities and network sharing and learning facilitation

- *SIHI network communications activities are shared between the SIHI hubs in the Philippines and in Malawi* - the SIHI Philippines hub is taking increasing responsibility for coordinating and conducting the global communication work for SIHI global.
- The hub has also volunteered to facilitate network sharing and learning through regular webinars and a common Moodle (open source learning) platform.

SIHI UGANDA HUB: BUILDING PARTNERSHIPS WITH GOVERNMENT AND LOCAL INSTITUTIONS IN UGANDA

Engaging national partners in SIHI hub leadership

- *An advisory committee has been established* – The SIHI hub Uganda advisory committee is composed of key potential partners and stakeholders and provides strategic directions to the hub.
- *Hosting the SIHI Uganda hub partner meeting* – a stakeholder meeting was organized with national potential partners to showcase social innovation and develop new collaborations.

Conducting and fostering research

- *A new call for nominations of social innovations focusing on infectious diseases of poverty was launched in November 2019.* Case study research will be conducted in 2020 on the three selected innovations.
- *Social innovation research grants* – A recipient of SIHI Uganda's small research grants in 2018, undertook research that identified some of the important requirements for establishing the National Client Registry (NCR) for Uganda's healthcare system.
- *Support social innovation impact study* – the hub provided data management support to the research study to assess the impact of the Health Child Uganda innovation.

SIHI country hubs networking

- *The SIHI Uganda hub hosted the first network meeting initiated and organized by the country hubs themselves,* co-organized by the Uganda and China hubs and with logistical and financial support from Fondation Mérieux. A workshop on crowdsourcing skills was facilitated by SESH and the Social innovation introduction module developed by SIHI Philippines was tested. It was a great opportunity for sharing, learning and planning together for 2020-2021 plans.

SIHI MALAWI HUB: CREATING AWARENESS AND ENGAGING WITH THE NATIONAL GOVERNMENT

Advocacy and Partnerships

- *Engaging national stakeholders* – A series of stakeholder consultations, including two training workshops for innovators in communications and in effective monitoring and evaluation "Science Cafés" sessions, were organized to ensure that the hub's strategy responded to stakeholder needs and opportunities, and to catalyse innovative and creative thinking in health innovation amongst Malawians. These meetings generated dialogue on leveraging parliament committees for advancing social innovation.
- *An online repository of local social innovations* as part of the existing SIHI Malawi webpage provides a single accessible open source and will be updated with call submissions that were deemed eligible through a review process.
- *The Polytechnic College at the University of Malawi included a SIHI research agenda as part of its new graduate student orientation.*

Research

- *Three new research case studies* – The third national-level social innovation call was launched. Out of 47 solutions, 15 were shortlisted and research is being conducted on the three selected solutions.

- *A gap-analysis for social innovation collaboration with the Ministry of Health* was conducted to help identify areas of collaboration. The report is currently being compiled.
- *First cross-university social innovation research challenge and Social Innovation in Health Module* - The hub worked in collaboration with other leading public and private colleges (College of Health Sciences, College of Nursing, the Polytechnic College and Malawi College of Accountancy) and innovators in Malawi and launched the cross-university social innovation research challenge in April 2019. Selected graduate students engaged in co-creating and co-delivering community-based research. Senior scientists were selected to mentor students of successful proposals. The aim is to expand social innovation in health knowledge base through research with local innovators. Research questions focus on health financing and disability and health.

Capacity building

- *A social innovation training programme for health system actors* has been developed and tested with a group of 15 representatives of the University of Malawi, government, nongovernmental organizations, and private sector and, subsequently, a group of representatives from nongovernmental organizations through the Council of Non-Governmental Organizations in Malawi and researchers.
- *The Introductory module on social innovation in health* developed by the SIHI Philippines hub was adapted to the Malawi hub context and piloted with the University of Malawi College of Medicine's health systems and policy department.
- *Good practices to engage with the government* - Innovators from Malawi attended a capacity building workshop that aimed to enhance their communication with stakeholders.

Leading SIHI network website related activities

- In collaboration with the SIHI Philippines hub, the Malawi hub has engaged in the management of all communications activities related to the SIHI website and a new communications officer has been hired.
- The SIHI website has been maintained and is being continuously updated.

SIHI LATIN AMERICAN AND CARIBBEAN (LAC) HUB: DISSEMINATING SOCIAL INNOVATION APPROACH IN THE REGION IN PARTNERSHIP WITH PAHO

Creating an enabling environment for national stakeholders to develop collaborations to advance social innovation in health

- *Development of a portfolio of opportunities in concert with the Community of Stakeholders in Colombia for advancing social innovation in health.* Reaching out and engaging with the public and private sectors was conducted through visits, webinars and design thinking/user centred workshops to identify opportunities for social innovation in health with members of the community of stakeholders.
- *Webinars for stakeholder engagement:* The hub organized four “virtual coffees” (webinars) to spread knowledge about social innovation and create a new community of social innovation stakeholders, attracting 40 participants.

- *SIHI LAC participated in Colombia's first international week of science, technology and innovation* - Titled "Social Innovation in Health for Latin America and the Caribbean," the conference was organized by the local government of the State of Valle del Cauca in Colombia. With participants from the public, private and academic sectors, it was an opportunity to meet and engage with potential stakeholders such as Colombia's health officials. The conference introduced participants to the work of the SIHI LAC hub, its challenges and the potential of social innovation for improving health.

Conducting research to enhance the knowledge of social innovation in the Latin America and Caribbean Region

- *Three new research case studies* – In 2019, in collaboration with PAHO, the *Andean region SIHI call for solutions* was launched. It had two principal objectives: identification of the social innovation in health landscape and innovative solutions to health problems in the Andean region on topics of infectious diseases of poverty and access to healthcare; and to engage key stakeholders (especially within the public and private sectors). The three innovations selected received support for small equipment or materials for their programme and a full scholarship to attend the training opportunity in community-based research methodologies.
- *A documental research study* on social innovation in health in the Latin American and Caribbean region was conducted, providing a better understanding of how innovations are being developed and sustained in Latin America.
- *A road map for scale-up and sustainability of social innovations has been developed.* It will support innovators to embed research in their innovation to sustain them and, if appropriate, scale them up.
- *Introducing social appropriation of knowledge in research* – CIDEIM is introducing social innovation in projects to control leishmaniasis and to promote social appropriation of knowledge. A tool for education in health for social appropriation of knowledge has been developed.

Developing awareness and training material and disseminating research in social innovation skills

- *A train-the-trainer programme for the short course for Community-based Participatory Research for Health* – The course seeks to promote the social appropriation of knowledge based on the experience of researchers and innovators. The methodology is based on the principles community participation and empowerment. The learning experience and the interchange of knowledge among stakeholders will be the drivers of the training during the process of shared construction. A short online training was developed and constitutes a prerequisite for participants in the training-of-trainers course.
- *Internship programme* – The hub recruited two interns this year from the Universidad Icesi in Cali. This programme aims to enhance collaboration with its partner university and to integrate research for social innovation in the national health system.
- *Project management and planning courses* – The TDR-supported Regional Training Centre and the SIHI hub in Cali conducted several implementation research and project management courses for all SIHI partners.

SESH/SIHI CHINA: DEVELOPING CROWDSOURCING SKILLS AND LEAD SIHI FUNDRAISING EFFORTS ACROSS THE SIHI NETWORK

Developing, testing and implementing social innovation initiatives

- *The “Pay-it-Forward” approach to increase testing rate* - In January 2019, SESH collaborated with community-based organizations in Guangzhou and Beijing to implement a pay-it-forward strategy for increasing gonorrhoea and chlamydia testing among Chinese gay men. The pay-it-forward programme offered gay men free testing and then asked whether they would like to donate (pay-it-forward) for future testers. By changing the reciprocal exchange between the buyer and seller under a traditional transaction to a social exchange between receivers and givers in a community, the programme directly tackles financial and social barriers to testing among Chinese gay men.
- SESH is conducting “secondary distribution” HIV self-testing in China where individuals who receive multiple self-tests can distribute these to sexual partners or friends to expand HIV testing.
- In collaboration with Blued, SESH hosted the *Gay-friendly Dr Hackathon* to exploit the wisdom of participants to develop an online platform-based tool for promoting healthcare utilization and health among gay men in China.

Supporting SIHI hub’s network

- *Crowdsourcing clinic¹: Strengthening crowdsourcing skills to effectively engage communities* - An online crowdsourcing clinic was developed and piloted with all SIHI hubs, as well as with the TDR Global teams in the regional training centres supported by TDR. It was also used with potential partners. SESH co-organized the SIHI hub network meeting in Uganda on 8-10 October 2019 and facilitated a crowdsourcing workshop to train other SIHI hubs. Crowdsourcing is an effective and efficient way to engage communities in social innovation and in research.
- Leading the development of funding proposals for SIHI hub’s network - funding proposals have been developed in consultation with the hub and submitted to the MacArthur Foundation.

THE BERTHA CENTRE FOR SOCIAL ENTREPRENEURSHIP AND SOCIAL INNOVATION, SIHI, SOUTH AFRICA: FOCUSING ON A SYSTEM CHANGE APPROACH

- *Health Systems Entrepreneurship (HSE) project for m-Health innovations* – Led by the Bertha Centre, the HSE project focuses on enhancing the integration into the health system of six African social innovations aimed at incorporating m-health innovations for the improvement of health care delivery. In June 2019, HSE innovators met in Geneva with SIHI partners to share lessons learned on driving systems change in advancing social innovation in health.
- The Bertha Centre has supported the development of SIHI training material on social innovation e.g. MOOC (see below)

INTRODUCING A SOCIAL INNOVATION APPROACH IN BENIN

In collaboration with the TDR Research for Implementation team, initial steps were taken to introduce social innovation into the National Tuberculosis Control Programme (NTP) in Benin. A research study has been conducted to identify the socio-economic factors involved with the poverty of TB patients and the possible solutions that patients could see. These were discussed during a consultation in Cotonou in 2019, organized by the Government of Benin and local researchers. Fifty participants from various ministries (health, agriculture, sports, social affairs and microfinances) nongovernmental

¹ <http://crowdsourcingclinic.org/Clinic/>

organizations, researchers, local social innovators and entrepreneurs were engaged and developed a roadmap. The outputs from the workshop may well result in the NTP becoming the first social innovation laboratory in Benin, and an example for other countries in West Africa to adapt the approach to their local contexts. Research will be integrated to inform the development, acceptance, impact and testing of key social innovation initiatives, which would then be adapted and scaled for other locations throughout the country and region.

DEVELOPMENT OF A MOOC MODULE ON SOCIAL INNOVATION AND COMMUNITY ENGAGEMENT TO BE INCLUDED IN THE TDR MOOC FOR IMPLEMENTATION RESEARCH.

The development of a MOOC module on social innovation and community engagement is a collaboration between SIHI and the TDR Research Capacity Strengthening team. The need for such a module was highlighted by researchers, innovators, funders and other stakeholders during various SIHI consultations, and as the TDR MOOC on implementation research was tested. Key elements to be considered in the development of the module were compiled, taking into account: (i) a mapping exercise conducted in 2017 to identify existing research tools applicable to social innovation, (ii) the identification of key elements to be included in such guidance at the SIHI workshop “Co-creating a Research Guidance on Social Innovation” held in Malawi in 2018; and (iii) feedback from participants of the TDR MOOC on Implementation Research. The MOOC module will be tested in 2020.

NURTURING THE SIHI NETWORK

- *SIHI country hubs discuss sustaining their impact* - The hubs met at WHO headquarters in Geneva in 2019. Collaboratively, they discussed and explored ways to synergise and sustain their efforts. Approaches to institutionalise and disseminate social innovation within research organizations and country health systems were shared. Participants also presented how they will monitor and evaluate their work in order to continuously learn and improve performance.
- In addition, to inspire the discussions, guest speakers were invited to *the TDR/UNAIDS/WHO lunchtime seminar, “Social innovation in health: leaving no one behind.”* Participants from IE Business School, the Office of Innovation at UNAIDS, WHO, and Blueorchard Finance SA, shared their experiences to illustrate the value of business model approaches, community engagement and innovative financing in sustaining social innovations. Professor Lenore Manderson of the University of the Witwatersrand in South Africa and Chair of the SIHI external review group facilitated the discussion.

Remaining challenges

Substantial support is being provided to the SIHI country hubs in Colombia, Malawi, the Philippines and Uganda in order to enhance sustainability and financing. Further engagement of key stakeholders such as the ministries of health, university departments, the private sector, and national research institutions is critical to help institutionalize social innovation in national systems and identifying innovative financing.

A 3-day workshop held in February 2019 was organized to strengthen proposals and plans for sustainability. Speakers with expertise on social impact investments, public-private partnership building, scale-up strategies and entrepreneurship skills were invited to participate. During the workshop, the hubs agreed to meet to develop a joint proposal for funding. Under SESH leadership and with LSHTM support, they developed and submitted an application to [100&change](#) in August 2019.

Contribution towards TDR key performance indicators

Partnerships and collaborations:

The partnerships with Ahimsa Fund, Bertha Centre, Fondation Mérieux, LSHTM, PAHO, WHO are expanding and have helped to leverage resources. This year TDR became a partner of the Health Innovation Exchange initiative led by UNAIDS and is represented on their advisory board. These organizations are working to embed innovations in their programmes and therefore collaboration with these highly influential organizations will be promising for SIHI as efforts continue to spearhead activities to engage communities in social innovation research, capacity building and advocacy. SIHI hub partners at country and regional levels collaborate independently with many public and private stakeholders. Hence, SIHI has fostered partnerships with a wide range of hub-affiliated organizations.

Estimated leverage created by this project:

Various SIHI partners and stakeholders at the global and country levels contribute directly to promote and advance social innovation in health care delivery. TDR funding leveraged resources from: (i) established academic centres whose regular activities focus on social innovation (e.g. the Bertha Centre, the Skoll for Social Entrepreneurship); (ii) new interested partners who dedicated time to work with SIHI on a pro bono basis (e.g. LSHTM, Fondation Mérieux, the Ahimsa Fund) and UNAIDS; (iii) experts (meetings, review panels, project leaders); and (iv) SIHI country hub partners.

Gender aspects and vulnerable populations:

At the organizational level, the SIHI Ad hoc Review Committee has four members: 75% are women (three) and 25% are men (one). The chair is a woman. Similarly, there is an equal number of men and women among the principal investigators from each hub.

Social innovations by nature directly or indirectly assist poor and vulnerable populations to access health care. SIHI supports the implementation of the WHO framework on people-centred integrated health services, which aims to leave no one behind. SIHI calls for proposals often target vulnerable populations such as children, pregnant women, and tribes and communities living in remote or hard-to-reach areas. SIHI case studies highlight how social innovations not only help to improve health but also to enhance community members' dignity and their economic situation.

Training:

All SIHI hubs support student training across the academic spectrum where collaboration exists.

Strengthened institutions or networks:

As part of the SIHI network, the new SIHI hubs in LMICs receive strong support from TDR and other partners. These hubs are developing sustainability plans in order to evolve and become autonomous.

Publications:

An updated case compendium with summaries of the 38 cases studied through the network from 2015-2018 (<https://socialinnovationinhealth.org/wp-content/uploads/2018/11/sihi-case-overview-booklet-2018-single-low-ress.pdf>)

Halpaap, B., & Reeder, J. C. (2019). Social innovation: Engaging communities in improving their own health. Ethiopian Medical Journal, 57(1) (http://emjema.org/index.php/emj/article/view/1229/pdf_210)

Supplement in the Journal of Infectious Diseases of Poverty is being compiled: "Social innovation to transform health care delivery" (<https://www.biomedcentral.com/collections/SIHI>)

[SIHI website](#)

Related news:

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[The National Telehealth System](#), Philippines

All videos are available on the [SIHI YouTube channel](#)

Results dissemination and uptake:

To advance social innovation in health there is a great need to promote the approach at the global, national and local levels. This encourages all players and stakeholders to create an enabling environment and to support community engagement, multidisciplinary research approaches, and multisectoral partnerships.

Since its establishment in 2014, SIHI has placed a lot of importance on branding and communications activities. Evidence is being disseminated as publications, testimonies, pictures and films through the SIHI website, social media, eNews, SIHI partners' networks and SIHI consultation events.

SIHI advocacy activities are all geared to engage global, national and local players to promote, support and advance social innovation in health. Evidence from the case study research were showcased in various global health events including: Ahimsa Forum (June 2019), Sida Science Days (June 2019), the launch of the Health Innovation Exchange at the World Health Assembly (June 2019), the Advance Course on Diagnostics (September 2019), ASTMH (November 2019).

SIHI hubs also showcased the case studies and promoted the SIHI approach during their consultations with their respective governments and partners. They also presented academic publications:

- Three posters presented at the Towards Unity for Health (TUFH) Conference in Darwin, Australia, by the SIHI hub in the Philippines.

Plans for 2020–2021**Planting the seeds to accelerate universal health coverage**

SIHI's vision is to foster an increasing number of research institutions in the Global South to promote and advance social innovations to transform health care delivery.

To achieve this, SIHI country hubs and other partners will continue creating an enabling environment at the global, national and local levels. This will be done through building new partnerships and engaging new research institutions and countries to embed social innovation in their programmes.

SIHI will build upon its work and expansion during its two initial phases and will focus, in this Phase 3, on disseminating social innovation practice and research in new countries through a regional approach.

2014-2015 – Phase 1: SIHI launch – Making the case and WHO call for action

2016-2019 – Phase 2: Expanding the network to low- and middle-income countries –SIHI country hubs

2020-2021- Phase 3: Planting the seed – Network expansion in the regions

The following activities are planned for 2020-2021, and efforts will be made to identify specific funds to leverage TDR core funding and implement this regionalization phase.

- Engaging new institutions in the regions - Open call for research institutions in the Global South who are advancing social innovation in health through advocacy, research and/or capacity and are willing to engage and collaborate with new institutions in neighbouring countries to embed social innovation in their programmes.
- Develop, establish and test a mechanism for an effective facilitation of the SIHI network by countries.
- SIHI partner sharing and learning event.

ER 2.3.3: TDR Global community of grantees, trainees and experts

TDR Global² is a community of passionate scientists and experts who have been working with TDR to support the global research effort on infectious diseases of poverty³.

TDR Global receives input and oversight by an external working group⁴ that includes expert adviser members and observers from institutions that collaborate closely with TDR. A community engagement strategy was devised by the advisory group in 2016 and is being implemented with a specific focus on mentorship.

TDR GLOBAL MISSION

TDR Global supports the action of local scientists associated with TDR by catalysing collaboration between people and helping them fulfil their mission. This facilitation role is done through innovative communication and engagement tools, methods and events that stimulate dynamic participation and strengthens local capacity.

PURPOSE

- Foster mentorship to help members of TDR Global increase their capacity and profile
- Catalyse collaborations by showcasing TDR Global members' profiles, identifying experts to be considered for review of grants or expert committees for TDR and its partners and encourage networking and connections between people.

Progress in 2019

This section presents progress made on the implementation of the TDR Global Strategies for Community Engagement which were endorsed by the TDR Global working group, September 2016, and which was further refined in 2018.

Refining the TDR Global strategic approach to community engagement

In November 2018, the TDR Global advisory committee met to review progress made on implementation of the community engagement strategy, to provide feedback on pilot activities undertaken and input into the 2019-2021 plans, and to guide future approaches to communication and community engagement. Results from piloting various methods for reaching out to the community were analysed and discussed. The committee Working Group recommended:

- Enhancing communications activities, highlighting TDR Global's focus on strengthening mentorship
- Using a regional approach to operationalize TDR Global through the TDR supported Regional Training Centres in Africa, Asia and Latin America.
- Further using crowdsourcing to gather and test ideas for mentorship at the regional level.

² For more information on TDR Global see: <https://www.who.int/tdr/partnerships/tdr-global/TDR-Global-One-Page.pdf>.

³ For insight on community member perspectives, see TDR Global: <https://youtu.be/jR3Ct4-BxEs>.

⁴ For a list of external working group members, see: <https://www.who.int/tdr/partnerships/tdr-global/TDR-Global-ad-hoc-working-group.pdf>.

TDR GLOBAL NEW BRANDING AND ENHANCED COMMUNICATION

An enhanced design and visual identity. As per the TDR Global Working Group recommendations, a TDR Global communications strategy was developed and the design and visual identity of TDR Global were enhanced. The initial phase started with a research process to capture the unique profile of the community involved, and to investigate the tools and communication mechanisms they are most likely to respond to. Following these research findings, the brand was refreshed and a campaign developed for effective storytelling and community building. A designated communications officer worked in close collaboration with TDR and the TDR Global implementing teams (e.g. SESH, TDR Regional Training Centres) to ensure continuity, cohesiveness and to address the unique communications needs of each partner.

Awareness campaign. A TDR Global awareness campaign was launched in November 2019 to enhance the visibility of TDR Global, highlight its focus on mentorship and networking and encourage TDR Global members to update their profile on the TDR Global platform. Motion graphic animations (translated into French, Spanish, Portuguese and Indonesian), a refreshed newsletter email template, social media messaging and a new TDR Global landing web page were implemented.

Storytelling toolkit. Following the campaign launch, the following items were developed and made available to TDR Global members and champions: (i) a set of four pull-up banners (design only, excluding the actual units); (ii) a PowerPoint template, to be updated and populated by members for easy storytelling, as needed; (iii) a set of posters; (iv) Word-based templates that could be updated with tailor-made messaging, as required; and (v) printed, mini-leaflets encouraging people to update their online profile, for easy dissemination at conferences and events. Specific tools were developed for the specific needs of the Regional Training Centres (RTCs) supported by TDR.

Creating public profiles and showcasing their work at global health events. Publishing profiles of TDR champions continued as part of TDR eNews publications. To date, TDR communications has created 41 unique and in-depth profiles, demonstrating the impact TDR has had on the lives of its grantees.

Eight TDR fellows were selected as featured panellists on TDR-sponsored panels at the European Congress on Tropical Medicine and International Health and the annual meeting of the American Society of Tropical Medicine and Hygiene. Both advocacy events will highlight how TDR-supported scientists are contributing to universal health coverage. These events are promoted through social media and the TDR website and newsletter.

INNOVATIVE FINANCING APPROACHES

Piloting crowdfunding for grantees' initiatives. Crowdfunding activities were coordinated by SESH (Social Entrepreneurship to Spur Health). SESH is a research, training, and service partnership focused on using crowdsourcing to improve health services. SESH upends traditional approaches to public health and research by engaging the public – true grassroots experts – to innovate and implement ideas that best reflect their own backgrounds and resonate within their unique cultural landscapes. The SESH team has extensive experience building capacity for crowdsourcing research and organizing crowdsourcing contests. In order to strengthen community engagement related to TDR Global, a global crowdfunding challenge to support researchers focused on infectious diseases of poverty was piloted in 2019. A steering committee composed of TDR Global members reviewed the selection criteria and selected finalists. A volunteer judging panel was identified through an open call to TDR Global affiliates. From a pool of 592 volunteer judges, 47 were selected. A total of 121 individuals from 37 countries submitted proposals. The five finalists (from Guatemala, Mozambique, Nigeria, Sri Lanka and Thailand) were invited to a communications workshop held at TDR (Geneva) in November 2019. During the workshop, the finalists enhanced their proposals and developed sharp and convincing pitches.

Workshop feedback from participants and faculty suggested that this was a useful capacity building exercise and there was interest in developing a practical guide for public engagement in science (“pitching”). Finalists are now obtaining ethical and institutional approvals and plan to launch their campaigns in early 2020. In addition, the SESH team will discuss with TDR the possibility of building capacity for subsequent crowdfunding related to selected participants in the implementation research MOOC.



A TDR Global investment case to appeal to donors. An external consultant developed an investment case (business case) for TDR Global. Its contents were discussed with the core team and shared with the advisory group. A first fundraising campaign is being prepared on the topic of mentorship in research ethics, with other topics under consideration for a later time.

FOSTERING MENTORSHIP THROUGH COMMUNITY-BASED APPROACHES

Global mentorship contest to identify creative ways to enhance research mentorship in LMICs. To strengthen community engagement related to TDR Global, and to identify creative ways to enhance



research mentorship in LMICs, TDR Global worked with SESH to run a Crowdsourcing Research Mentorship contest. The contest's steering committee included TDR Global Working Group members and TDR Global regional leads, as well as SESH team members. The contest was launched in October with promotion on several social media platforms (Facebook, Twitter and a [live website](#)). The contest was promoted throughout October and November using the new TDR Global branding campaign. Given the delayed start date, the deadline was extended to 15 December.

In total, 123 entries were received from 47 countries: 49 from Asia, 38 from Africa, 26 from the Americas and 10 from Europe.

Through a selection process (detailed in the Crowdsourcing Health and Health Research Toolkit), a single global judging panel will review all eligible submissions. Exceptional submissions from regions will be given regional recognition (a trophy and support to join a regional conference) and one person will be supported to present their idea at a global conference.

The contest was run through partnerships with the NIH (crowdsourcing grant), LSHTM (ISENSE grant) and China CDC. Results from this contest will be analysed and published in an open access, peer-reviewed journal.

REGIONAL MOBILIZATION FOR MENTORSHIP THROUGH TDR GLOBAL NODE IN THE REGIONAL TRAINING CENTRES

Mobilization in the Americas. The Latin American team based at CIDIEM developed a communications plan to optimize outreach and engagement of the regional TDR Global community. Using a communications specialist, regular communication messages were disseminated to their regional TDR global community and strategic partners. They are also encouraging partner institutions to include the TDR platform link on their websites. The CIDEIM team worked on cleaning and consolidating the database of current TDR global community members in their region by promoting the importance of updating and completing each member's profile, and is in the process of conducting a baseline analysis of their community. The CIDEIM team is also working to identify and profile examples of TDR Global members whose career paths and leadership demonstrate the impact of their TDR involvement.

To engage the TDR Global community, the CIDIEM team spearheaded a Crowdsourcing Research Mentorship contest in their region, assembling a local steering and judging committee, promoting the contest, identifying and awarding winning entries and supporting the contest's global finish. Winning solutions will be implemented in 2020. The team also organized a TDR Global-sponsored side event at a regional scientific conference in December 2019.

Mobilization in Asia. The TDR Global node based in the TDR RTC in Indonesia collaborated with SESH to organize a mentorship contest. The outcomes of the contest will contribute to the promotion of mentoring initiatives in the region in 2020. The node also produced video profiles of potential mentors to increase their visibility and collaborated with the UGM Postgraduate programme to provide mentoring to students/alumni who would be presenting at selected regional conference.

In addition, they organized a TDR Global Talk and Symposium in conjunction with a selected regional conference (e.g. the Joint International Tropical Medicine Meeting - JITTM). The best two entrants of the mentorship contest from South-East Asia were invited to deliver a talk at the conference. Additionally, they organized webinars of talks delivered by renowned tropical disease scientists based in South-East Asia and engaged the community through social media.

Mobilization in Africa. The TDR Global node based in the RTC in Ghana supported the crowdsourcing contest run in collaboration with SESH. The team identified local panellists from the TDR Global community to collate and review all mentorship ideas submitted from the WHO African Region. The best idea(s) will be implemented in 2020.

A seminar was organized by the TDR Global Africa node in September 2019 aimed at assisting selected senior TDR Global members (mentors) in the University of Ghana on how to navigate the TDR Global platform and to update their respective profiles. This seminar served as a prototype for the activity to be extended to the rest of the region through webinars in 2020.

The node is planning to conduct an activity to increase TDR Global visibility by hosting a conference side meeting for TDR Global members at a regional conference (tentatively March 2020).

LAUNCHING THE TDR GLOBAL ETHIOPIA NODE TO ENHANCE MENTORSHIP

Over several decades, TDR has contributed to the capacity building efforts in infectious diseases research in Ethiopia. Its support has strengthened institutions, individuals and initiatives. In Ethiopia AHRI, the Armauer Hansen Research Institute, has especially benefitted from TDR's support of research institutions in resource limited settings. Several of AHRI's current leading health experts have benefitted from TDR fellowship, research funds, training awards or other programmes during the course of their career. In August 2019 a TDR Global Champion at AHRI conducted a consultation meeting to develop a mentoring scheme for young researchers in the health sciences. Following this independent initiative, the TDR Global Node Ethiopia was launched. In addition, as part of the 50th anniversary of AHRI, an event is being prepared in consultation with and supported by TDR Global, to showcase: (i) the impact of TDR's support on scientists in Ethiopia, and on AHRI's development (institutional capacity strengthening); and (ii) to design the way forward to enhance mentorship, building upon past successes and failures.



ENHANCED TDR GLOBAL PLATFORM, USER-FRIENDLINESS AND EFFICIENCY

A new password reset tool was developed by Symplectic (now called Digital Science) specifically for TDR Global. This tool addresses the recurring issue and previously very complicated process for resetting a user's lost or forgotten username or password. The new, automated feature is easily accessible on the Login page. This feature adds to the platform's user-friendliness while at the same time increasing efficiency, since it eliminates the time-consuming manual reset that was being performed by TDR staff.

MAPPING TDR GLOBAL MEMBERS

Further demographic information added. Information on the geographical distribution of TDR Global grantees was obtained through analysing their nationality and, in the case of missing data, the country of the associated institution was used. Analysis showed that, since 2012, TDR has an expanding and strong focus on LMICs.

A TDR policy was adopted in 2019 requiring grantees to complete their profile before they can receive new grant payments. This policy has led to improved completeness of newly created profiles.

Following the recommendation of the external advisory group, to further complete demographic information of TDR Global members, an active and comprehensive search was conducted to retrieve missing information. A consultant identified the gender, country and/or email address of over 1000 members via internet searches. This information allowed us to have a more complete picture of the geographic representation and gender ratios within the TDR community.

Of the roughly 7500 members registered in the database, 69% are men, 28% women and 3% unknown. Of these, 3120 (67% men, 33% women) have contact details with active emails.

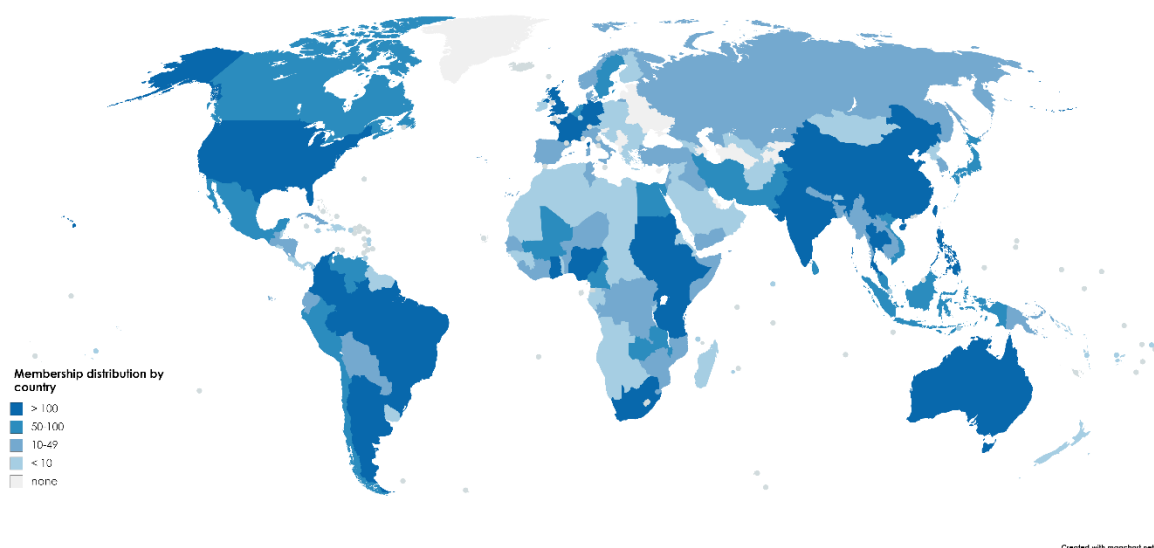


Figure 4. Geographical distribution of TDR Global members

Collecting information through the crowdsourcing method of community engagement. To participate in this challenge, TDR Global members needed to ensure that their profile was up-to-date in the TDR Global platform. Completed and current profiles facilitate community engagement and mobilization activities, and allow us to better facilitate collaboration and mentorship. A global crowdsourcing contest on facilitating mentorship was launched in 2019, with the objective of collecting valuable ideas that could be tested, piloted and eventually disseminated either globally or in certain regions. An equally important second objective was to have the profile information of TDR Global members completed before their application could be judged.

Mapping members regionally – In Latin America and the Caribbean. In 2019 the Regional Training Centre supported by TDR for Latin America and the Caribbean, CIDEIM, engaged in facilitating and coordinating TDR Global activities in the region. A project was started to increase the awareness and use of the TDR Global platform by the members of the regional TDR Global community. The focus of the effort was on supporting TDR in building regional membership in TDR Global. Under TDR's guidance, outreach strategically targeted regional TDR Global communities (TDR training or research grantees, experts, advisers, and current or former staff), as well as communities linked to the RTC such as network institutions and other institutional champions and colleagues who have been beneficiaries of TDR training programmes and are strategic partners for research initiatives to address infectious diseases of poverty.

In addition, under TDR guidance, institutions in the region that have several previous TDR grantees, steering committee members, temporary advisers and/or TDR Global members, were identified. These institutions will be systematically contacted to invite the respective grantees to update their TDR Global profiles. PAHO/AMRO country offices and the Neglected, Tropical and Vector-Borne Diseases Unit promoted awareness and participation in the TDR Global platform and assisted in identifying and showcasing examples of leadership and career paths pursued by regional members of TDR Global.

A communications plan proposed by CIDEIM to optimize outreach and collaboration was agreed with TDR and will be implemented in 2020-2021.

Mapping members regionally – In Africa. The TDR Global node in Africa adopted a snowball approach by using existing networks (i.e. RTCs, satellites, universities within the TDR postgraduate scheme, SIHI, etc.) to identify more potential community members. Individuals who expressed interest to become affiliates were also included. The Africa node established a rapport/relationship with the TDR Global Community members in Ghana and throughout Africa through calls and the sharing of frequent emails. Potential community members were invited by the Africa node to register on the TDR Global platform. The node provided support for those unable to register or who found it difficult to register due to time or challenges with using the platform. Once this strategy was implemented in Ghana, the Africa node reached others across the African continent.

The Africa node also submitted a communications plan that engaged social media to optimize outreach and collaboration.

Mapping members regionally – In Asia. Reaching out in Asia relied on the core of the community that included current students/alumni of the postgraduate programme in implementation research managed by UGM since 2015 and current/former participants of courses offered by the RTC in Indonesia since 2010. This was complemented by the list of former TDR grantees in the region, starting in countries where the RTC already has longstanding collaborating partner institutions (e.g. Bangladesh, India, Myanmar, Nepal and Thailand).

Mapping members regionally – in Zambia. In 2018 TDR Global worked with Modest Mulenga (Chair JCB) to identify a TDR Global country coordinator from Zambia. Working with two TDR summer interns, the coordinator identified 90 TDR alumni at 16 institutions across Zambia. These alumni were contacted and encouraged to complete their TDR Global profiles. Six selected alumni were interviewed and profiled by the interns for the purpose of showcasing TDR Global's impact on their career trajectory. To engage the broader local community (and after reviewing several alternatives), the coordinator proposed using a crowdsourcing activity around a health research priority in the region (tuberculosis isoniazid prophylaxis treatment uptake). The plan was to use the TDR/SESH Crowdsourcing in Health and Health Research guide to conduct this regional crowdsourcing event.

The Zambia country mobilization pilot was finalized and the results analysed in 2019.

Contributions towards TDR key performance indicators

Partnerships and collaborations:

RTCs in Latin-America, Africa and South-East Asia are driving TDR Global at the regional level. They actively participate in events and lead the regionally focused mentorship challenges.

Estimated leverage created by this project:

Significant leverage occurred through the regional activities related to the mentorship programme. Leverage included voluntary support provided by expert advisers, observers and by community members engaged in various mobilization initiatives, and regional training centre expertise.

Gender aspects and vulnerable populations:

- Three women (75%) and one man (25%) are members of the external working group that advises TDR Global activities.
- A gender mainstreaming initiative in TDR Global started in 2019 and will continue into 2020-2021.
- A crowdsourcing challenge was conducted to identify solutions to increase the number of women applying to the TDR Clinical Research Development Fellowship programme.

Training:

Five people from different countries acquired specialized skills related to launching and sustaining a crowdfunding event.

Strengthened institutions or networks:

Through the communication efforts of the regional TDR Global teams, an updated database of active TDR global members was created as well as a baseline profile of their regional community. Current contact information was collected and regular communication was established among this community. Through this process TDR Global connections were established/strengthened between research organizations and research communities.

Moreover, through regional activities focused on promoting TDR Global at regional events, TDR Global was able to bring some of its members together, as well as introducing TDR to new audiences via poster sessions and new branding tools (e.g. banners).

Related news:

<https://www.who.int/tdr/news/2018/crowed-wisdom-to-improve-health/en/>

<https://www.who.int/tdr/news/2018/women-leaders-global-health-conf/en/>

Results dissemination and uptake:

TDR Global activities are driven by communications to engage the community. This is done through the TDR Global list server, social media, RTCs in Africa, Asia and Latin America and the Caribbean. Crowdsourcing challenges have been a great approach to further dissemination and engagement.

Plans for 2020-2021

- Platform maintenance and improvement:
 - o Adding an analytics dashboard to the platform to make it very easy to analyse all the data in the database; and
 - o Replacing Profiles RNS with a more user-friendly public interface that can better showcase the profiles of members and greatly facilitate the search function.
- Data management: further data curation.
- Communications and advocacy at global, regional and national levels.
- Community engagement through the TDR Global regional nodes to enhance mentorship:
 - o Build on the mentorship crowdsourcing exercise started in 2019 and implement ideas gathered to develop tools and channels that facilitate mentorship in health research;
 - o Mainstreaming gender in TDR Global activities through specific approaches;
 - o Improve profile completion and further reach out to layers 2 and 3 of the community engagement strategy; and
 - o Additional community engagement activities at regional and national level (US\$ 50 million budget scenario).
- TDR Global survey⁵ results analysis on the impact on former TDR trainees.
- Coordination, monitoring and evaluation: bringing in new talent to coordinate decentralization efforts with the aim of empowering regional nodes to conduct user and data management, and harmonized communications activities.

ER 2.3.4: Effective engagement in gender research and infectious diseases

This expected result has a double focus:

- Effective incorporation of intersectional gender analysis in research and training on infectious diseases; and
- Foster global awareness of the importance of gender and intersectionality in infectious diseases of poverty prevention and control efforts.

Specific objectives include:

1. Design and improve strategies to promote evidence-based gender-responsive health interventions;
2. Foster and contribute to gender-responsive research for implementation, evidence, policy and practice; and
3. Build and strengthen research capacities on gender-based analysis in research on infectious diseases of poverty.

This ER starts in the 2020-2021 biennium; however, key activities were already planned at the end of 2019 and one event is to be highlighted. During the 2019 ASTM⁶ Conference, a UNDP-TDR-Liverpool School of Tropical Medicine-led symposium was organized. It presented the importance of gender and intersectional analysis in addressing neglected tropical diseases (NTDs), meeting the goals of the WHO

⁵ The European Science Foundation has more information on career tracking surveys at: <http://www.esf.org/>

⁶ American Society of Tropical Medicine & Hygiene

Roadmap on Neglected Tropical Diseases 2012–2020, enhancing access and delivery of health interventions and contributing towards universal health coverage and the Sustainable Development Goals. The symposium also launched and discussed a UNDP-TDR technical discussion paper on gender and NTDs, which synthesizes the evidence and presents clear recommendations on how to build more gender-equitable NTD programmes and partnerships, gender analysis in implementation research and perspectives on gender analysis from Africa and South-East Asia. Presentations were followed by a plenary discussion on intersectional gender analysis within programme delivery.

The event was also a good opportunity to raise the profile of TDR in the gender and infectious disease research agenda and highlight TDR's key strategic directions in this area.

Plans for 2020-2021

1. Key activities have been identified for next biennia including:
 - Implementation within TDR and dissemination of TDR's strategy.
 - Developing an intersectional gender analysis module within TDR MOOC on implementation research: support gender responsive research capacity strengthening efforts, engaging RTCs, partner universities and other research partners.
 - Gender analysis included in TDR's research programme outputs where feasible and disseminate TDR Toolkit on intersectional gender analysis in research on infectious diseases (to be published in 2020).
2. Communications, public awareness and participation in key events:
 - Proposal for a gender related theme at a TDR side event during the World Health Assembly in 2020.
3. Continue supporting new knowledge and evidence on gender, intersecting inequalities and the institutionalization process within African academic institutions of the gender-based analysis training on vector-borne diseases.

Budget and financial implementation

TABLE 1: Approved Programme Budget 2018-2019 and funds utilized

Expected result	Global Engagement	Planned costs at September 2019			Funds utilized as at 31 Dec 2019			Implementation rate		
		UD	DF	Total	UD	DF	Total	UD	DF	Total
1.3.5	Research on social innovation to enhance healthcare delivery	350 000	1121 666	1471 666	350 000	980 108	1330 108	100%	87%	90%
2.1.1.2	Regional office collaboration and small grants	1 239 000		1239 000	1248 355		1248 355	101%		101%
2.2.1	Shaping the research agenda	100 000	475 000	575 000	71 102	299 741	370 843	71%	63%	64%
2.2.2	Capacity strengthening to bring research evidence into policy	100 000		100 000	67 058		67 058	67%		67%
2.3.1	Collaborative networks & engagement with global health initiatives	109 526	266 209	375 735	114 394	266 209	380 603	104%	100%	101%
2.3.3	TDR Global	450 000		450 000	400 816		400 816	89%		89%
	Total 2018-2019 workplan	2 348 526	1 862 875	4 211 401	2 251 724	1 546 058	3 797 782	96%	83%	90%
	Last payments from 2016-2017 workplans	16 769		16 769	16 769		16 769	100%		100%
	Total	2 365 295	1 862 875	4 228 170	2 268 493	1 546 058	3 814 551	96%	83%	90%

TABLE 2: Approved Programme Budget 2020-2021

Expected result	Global Engagement	\$40M Scenario			\$50M Scenario		
		UD	DF	Total	UD	DF	Total
1.3.5	Research on social innovation to enhance healthcare delivery	150 000	200 000	350 000	350 000	800 000	1 150 000
2.1.1.2	Regional office collaboration and small grants	1 000 000	100 000	1 100 000	1 300 000	200 000	1 500 000
2.2.1	Shaping the research agenda	100 000	100 000	200 000	250 000	200 000	450 000
2.2.2	Capacity strengthening to bring research evidence into policy	100 000	100 000	200 000	200 000	200 000	400 000
2.3.1	Collaborative networks & engagement with global health initiatives		200 000	200 000	150 000	200 000	350 000
2.3.3	TDR Global	300 000		300 000	500 000		500 000
2.3.4	Effective engagement in gender and equity	100 000		100 000	200 000		200 000
	Total	1 750 000	700 000	2 450 000	2 950 000	1 600 000	4 550 000

* DF funds received after June 2019 are not reflected in the approved plan

Projects and activities funded

Project ID	Principal Investigator	PI gender	Supplier name (Institution)	Project title	Funding in US\$	Disease or research topic	Countries involved
SIHI	Dr Lindi Van Niekerk	W	Van Niekerk, Dr Lindi	Technical assistance for the Social Innovation in Health Initiative (SIHI).	25 158		South Africa
B80042	Ms Priyanka Shrestha	W	Shrestha, Miss Priyanka	Social Innovation in Health Officer	35 002		Nepal
B70104	Dr Mwapatsa Mipando	M	University of Malawi - College of Medicine	Strengthening Social Innovation research hubs in low- and middle-income countries.	121 820		Malawi
B60108	Dr Phyllis Awor	M	Makerere University School of Public Health	Strengthening Social Innovation research hubs in low- and middle-income countries.	69 685		Uganda
B70084	Ms Luzdivia Villa Hoyos	W	Cideim	Strengthening Social Innovation research hubs in low- and middle-income countries.	162 825		Colombia
B70113	Hu Prof. Noel Juban	M	University of the Philippines Manila, College of Medicine	Building and strengthening partnerships to institutionalize social innovation in health	149 602		Philippines
	Paul Lawrence Carlson	M	Conferences Services Tunisia	Administrative and logistics support to the TDR supported SIHI Hub proposal development Workshop	2 400		Switzerland
SIHI	Dr Lindi Van Niekerk	W	Van Niekerk, Dr Lindi	Technical assistance for the Social Innovation in Health Initiative (SIHI).	60 000		South Africa
	Dr Lindi Van Niekerk	W	Chembe Collaborative CC	Communications assistance to promote the Social Innovation in Health Initiative (SIHI) activities	10 781		South Africa
B80171	Director, CDC	M	National Institute of Parasitic Diseases, Chinese Centre for Disease Control and Prevention	Publication of the thematic series "Social Innovation to transform healthcare delivery" in the open access, peer-reviewed journal	22 000		China

Project ID	Principal Investigator	PI gender	Supplier name (Institution)	Project title	Funding in US\$	Disease or research topic	Countries involved
B80163	Dr Lindi Van Niekerk	W	Chembe Collaborative Cc	Communications services for Social Innovation in Health Initiative (SIHI) supported by TDR	80 270		South Africa
B80165	Dr Joseph Tucker	M	SESH Global Llc	Spurring Social Innovation through Crowdsourcing: SESH Consortium Strategic Plan	190 000		China
TDR-Social Innovation	Mr Jean-Pierre Puget	M	Copy Plus S.A.R.L	Printing of 200 copies of brochure "Social Innovation in Health Initiative"	2 227		France
TDR-Social Innovation	Mr Jean-Pierre Puget	M	Copy Plus S.A.R.L	Invoice for 3 posters on "Social Innovation in Health Initiative"	161		France
B80200	Dr Uche Veronica O Amazigo	W	Amazigo, Dr Uche Veronica O.	Development of a module for the TDR massive open online course (MOOC) on social innovation and community engagement	7 800		Nigeria
B80251	Prof. Rosanna Peeling	W	Peeling, Dr Rosanna Wai-Wan	Preparation of the scale up of the Health Centre by Phone, a Social Innovation Initiative project	24 500		United Kingdom
B80280	Ms Fiona Hazell Goldrick	W	Mad Foundation	Social Innovation in Health Initiative "Atelier ETAP Project" Benin	9 159		Sweden
SIHI_PAHO_2019	Maria Elena Cimino	W	AMRO-Pan American Health Organization (PAHO)	Transfer of funding to AMRO. Support to attend the International World Health Day 2019 at PAHO	7 800		United States
B80323	Ana Hernandez Bonilla	W	Hernandez Bonilla, Dr Ana Gerlin	Social Innovation in Health Initiative review and analysis and follow up on the Benin Project	15 300		Switzerland
B80322	Ms Olivia Berliet	W	Ahimsa Fund	Exploring philanthropists support to social innovation in health in the global south.	5 272		France

Project ID	Principal Investigator	PI gender	Supplier name (Institution)	Project title	Funding in US\$	Disease or research topic	Countries involved
	Dr Essam Elmoghazy	M	Cairo Association Against Smoking, Tuberculosis and Lung Diseases-Egypt (Castle)	Impact of private medical practitioners' involvement on Tuberculosis case notification to the National Tuberculosis Control Program in Ghrbia governorate, Egypt.	4 933	TB	Egypt
	Dr Wagdy Amin	M	Ministry of Health and Population of the Government of Egypt	Assessing household catastrophic total cost of Tuberculosis and their determinants in Egypt: A cohort prospective study	9 500	TB	Egypt
	Aamer Ikram	M	Establishment of Environmental Health	Is Tuberculosis treatment truly free? A study to identify key factors contributing towards the catastrophic cost of TB care in Pakistan	9 500	TB	Pakistan
	Dr Rashad Abdul Ghani	M	University of Science and Technology	"Assessment of the burden of concurrent infections with malaria and dengue among febrile patients in Hodeidah governorate, Yemen"	9 500	Malaria and dengue	Yemen
	Mr Ayman Ahmed	M	Institute of Endemic Diseases	Assessing the burden of co-infection of malaria and Aedes-borne arboviral diseases in the Khartoum state, Sudan	9 824	Malaria and Aedes-borne arboviral diseases	Sudan
	Dr Alaa Osman	M	National Liver Institute, Menoufia University	Research Project: [Estimating economic burden of HCV treatment strategies in Egypt 2018-2025] (TDR18.81)	9 500		Egypt
ESSENCE_2019	Mrs Abiodun Oladapo	W	Oladapo, Mrs Abiodun Oluwakemi	Activities of the Secretariat and the ESSENCE workplan for 2019.	12 425		Switzerland

Project ID	Principal Investigator	PI gender	Supplier name (Institution)	Project title	Funding in US\$	Disease or research topic	Countries involved
TDR	Hu Prof. Mohamad Hassany	M	National Hepatology and Tropical Medicine Research Institute-Safety and Efficacy of Hepatitis C Treatment	Economic analysis of HCV different screening algorithms in Egypt (18-97)	9 500		Egypt
	Mr Khider Alsedig	M	National Public Health Laboratory - Federal Ministry of Health, Sudan	"Occurrence of Malaria and Dengue co-infection and their vectors surveys in Kassala City, Sudan" (SGS 18-75).	9 500	Malaria and dengue	Sudan
	Suad Sulaiman	W	Sudanese National Academy of Sciences	Strengthening of visceral leishmaniasis (VL) control in Eastern Sudan.	9 500	Visceral leishmaniasis	Sudan
	Dr Adel Elduma	M	National Public Health Laboratory - Federal Ministry of Health, Sudan	Estimation of the risk factors associated with multidrug resistance tuberculosis in Sudan	9 500	TB	Sudan
	Teerath Kumar	M	District Development Association Tharparkar (Ddat)	Research Project: "Effects of long lasting insecticide nets (LLINs) through community participation in prevention of malaria among pregnant women in District Tharparkar Sindh Pakistan. (SGS 18-31)	9 627	Malaria	Pakistan
	Dr Chittamany Phonenaly	W	Ministry of Public Health	Assessing TB patient costs among TB-HIV patients and MDR-TB patients in Lao PDR	19 437	TB	Lao People's Democratic Republic
	Hu Prof. Zahra Mohtasham-Amiri	W	Guilan Road Trauma Research Center	Research Project: "Cost of HCV interfamilial Screening in HCV seropositive injection drug abusers (SGS 18-64)	11 975		Iran, Islamic Republic of
	Muteba Ayumba, Mr Eustache	M	Muteba Ayumba, Mr Eustache	Small grant for implementation research on infectious diseases of poverty.	12 000		Democratic Republic of the Congo

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	Magassouba, Dr Aboubacar Sidiki	M	Magassouba, Dr Aboubacar Sidiki	Small grant for implementation research on infectious diseases of poverty.	12 000		Guinea
	Babikako, Dr Harriet	W	Babikako, Dr Harriet	Small grant for implementation research on infectious diseases of poverty.	12 000		Uganda
	Dagnaw, Mr Addisu Melese	M	Dagnaw, Mr Addisu Melese	Small grant for implementation research on infectious diseases of poverty.	11 964		Ethiopia
	Tadesse, Dr Mulualem Jano	M	Tadesse, Dr Mulualem Jano	Small grant for implementation research on infectious diseases of poverty.	11 612		Ethiopia
	Adokiya, Dr Martin Nyaaba	M	Adokiya, Dr Martin Nyaaba	Small grant for implementation research on infectious diseases of poverty.	11 975		Ghana
2019.1.CHN.1.MVP	Director, CDC	M	National Institute of Parasitic Diseases, Chinese Center For Disease Control and Prevention	Assessment of malaria foci mapping in China after zero local transmission cases report	15 000		China
2019.1.SLB.1.MVP	Dr Hugo Bugoro	M	Solomon Islands National University	Citizen Science for Mosquito Vector Surveillance in Solomon Islands	14 851		Solomon Islands
2019.4.PHL.1.MVP	Pauline Joy Lorenzo	W	Research Institute for Tropical Medicine (RITM)	Ending the transmission cycle: Community-led total sanitation as an approach for reducing STH prevalence in endemic community in Masbate, the Philippines	15 000		Philippines
RKM/HIK/HS	Dr Chigozie Jesse Uneke	M	Uneke, Dr Chigozie Jesse	Small grant for implementation research on infectious diseases of poverty.	11 921		Nigeria
	Dr Issam Bennis	M	Ecole Nationale de Sante Publique (ENSP)	Research Project: "Cost-effectiveness and acceptability of a rapid diagnostic test for cutaneous leishmaniasis in Morocco" (SGS 18-63)	9 608		Morocco

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RKM/HIK/HSS	Okedo-Alex, Dr Ijeoma Nkem Nina	W	Okedo-Alex, Dr Ijeoma Nkem Nina	Small grant for implementation research on infectious diseases of poverty.	11 958		Nigeria
RKM/HIK/HSS	Agu, Dr Adaoha Pearl	W	Agu, Dr Adaoha Pearl	Small grant for implementation research on infectious diseases of poverty.	11 808		Nigeria
	Carl Abelardo Antonio	M	College of Public Health, University of the Philippines Manila (CPH-UPM)	Identifying facilitators and barriers to implementation of local tuberculosis control programs: A multiple case study research in selected local government units in the Province of Laguna, Philippines	15 000	TB	Philippines
TDR	Dr Ramy Ghazy	M	High Institute of Public Health (Educational Services Box)	Determinants of Schistosoma mansoni transmission in hotspots at late stage of elimination, Kafr El Sheikh governorate". (SGS 18-95).	9 500	Schistosoma mansoni	Egypt
	Xiong Mingzhou	M	Dermatology Hospital of Southern Medical University	Effect of leprosy syndromic surveillance programme to improve early diagnosis of leprosy and decrease the economic burden of leprosy patients.	15 000	Leprosy	China
	Mary Cristine Castro	W	Nutrition Center of the Philippines	TDR proposal on assessing TB patient costs and treatment adherence in the Philippines by longitudinal data collection.	15 018	TB	Philippines
ID B80022	Dr Edwinus Lyaya	M	Eastern Africa Research and Innovation Management Association (EARIMA)	2019 Eastern Africa Research and Innovation Management Association (EARIMA) conference -between 22 - 25 October 2019.	29 280		United Republic of Tanzania
	Marome Abel	M	The Leprosy Mission	Pilot project of community-based leprosy detection, diagnosis, treatment and management within 2 highly endemic leprosy areas of Papua New Guinea.	14 968	Leprosy	Papua New Guinea

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	Ngoc Anh Le Thi	W	Benh Vien Phoi Trung Uong	Evaluate the feasibility of short regimen in Latent Tuberculosis Infection and Treatment.	15 000	TB	Viet Nam
	Dr Nurhuda Ismail	W	Bendahari Uitm	Implementation and economic evaluation of gamified mobile apps tool for improved treatment adherence among working aged TB patients in Malaysia.	14 812	TB	Malaysia
SGS 18-7	Dr Amer Al-Jawabreh	M	Leishmaniasis Research Unit-Jericho	Fogging of hyrax dens by Pyrethroid derivatives: an attempt to control sandfly density in rural areas in Palestine	9 500		Palestinian Territory, Occupied
B80203	Michael Devlin	M	Science for Development	Review of TDR supported small grants jointly administered with WHO Regional Offices.	24 319		Belgium
TDR 18-49	Dr Sarah Mohammed	W	Federal Ministry of Health/General Directorate of Global Health	"Feasibility of Provider-initiated HIV testing and counselling (PITC) in private healthcare sectors, Sudan 2018-2019" (SGS 18-49)	9 500	HIV	Sudan
RKM/HIK	Winnie.Borey@Snabirc-Kenya.Org	W	Snake Bite Rescue Rehabilitation	Small grant for implementation research on infectious diseases of poverty.	11 781		Kenya
B80226	Simon Lewin	M	Norwegian Institute of Public Health	Symposium on using qualitative evidence to inform decisions in the SDG era.	24 216		Norway
NEP HSS	Dr Anjani Kumar Jha	M	Nepal Health Research Council	Mentorship for Country Led Implementation Research for Universal Health Coverage (CIRU) in Nepal (Part I: Preparatory Phase)	17 636		Nepal
	Luis Bahamondes	M	CEMICAMP - Centro de Pesquisas em Saude Reprodutiva de Campinas	SRHR public health emergencies or humanitarian settings	149 985		Brazil

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B80261	Dr Bakhytkul Sarymsakova	W	Regional Training Centre in Health Research	TDR Small Grant Scheme implementation in European region for 2019	140 256		Kazakhstan
DIR/KER	Aksana Korziuk	W	Korziuk, Ms Aksana	Translation into Russian of background and meeting documents for the EHRN multi-country meeting on 26-29 November 2019 in Vilnius, Lithuania.	8 400		Canada
TDR	Mr Mahmood Nairooz	M	Golden Tulip Hotel Bahrain	Capacity Building in Tropical Disease Implementation Research Workshop, Arabian Gulf University (AGU), Manama, Bahrain, 29-31/10/2019	5 491		Bahrain
DIR/KER	Alexander Reshetov	M	Reshetov, Mr Aleksander	To provide simultaneous interpretation services (ENG-RUS-ENG) during the EHRN multi-country workshop on 27-29 November 2019 in Vilnius, Lithuania.	1 800		International (Global)
DIR/KER	Ms Anna Nikolskaya	W	Nikolskaya, Ms Anna Igorevna	To provide simultaneous interpretation services (ENG-RUS-ENG) during the EHRN multi-country workshop on 27-29 November 2019 in Vilnius, Lithuania.	1 800		Russian Federation
RKM-HIK	Muteba Ayumba, Mr Eustache	M	Muteba Ayumba, Mr Eustache	Small grant for implementation research on infectious diseases of poverty.	3 000		Democratic Republic of the Congo
	Erika Fedorencikaite	W	Vj Go Vilnius	Supplier will provide guided tour services for social event	218		Lithuania
	Donatas Butėnas	M	Uab Olego Transportas	Ollex will provide transportation services for accelerating the implementation of the European action plan to strengthen the use of evidence, information and research for policy-making: opportunities, lessons learned and ways forward.	1 004		Lithuania

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	H5209-SL2@Accor.Com	W	Novotel Vilnius Centre Uab "Hekon"	Conference facilities, lunches, coffee breaks and accommodation during the EHRN multi-country meeting, 26-29 November 2019 in Vilnius, Lithuania.	19 598		Lithuania
	Kipras Lamauskas	M	Uab Sevilex	Dinner for meeting accelerating the implementation of the European action plan to strengthen the use of evidence, information, and research for policy-making: opportunities, lessons learned and ways forward	1 620		Lithuania
RKM/HIK	Dagnaw, Mr Addisu Melese	M	Dagnaw, Mr Addisu Melese	Small grant for implementation research on infectious diseases of poverty.	2 991		Ethiopia
RKM/HIK	Magassouba, Dr Aboubacar Sidiki	M	Magassouba, Dr Aboubacar Sidiki	Small grant for implementation research on infectious diseases of poverty.	2 974		Guinea
RKM-HIK	Babikako, Dr Harriet	W	Babikako, Dr Harriet	Small grant for implementation research on infectious diseases of poverty.	3 000		Uganda
RKM/HIK	Adokiya, Dr Martin Nyaaba	M	Adokiya, Dr Martin Nyaaba	Small grant for implementation research on infectious diseases of poverty.	2 682		Ghana
RKM-HIK	Tadesse, Dr Mulualet Jano	M	Tadesse, Dr Mulualet Jano	Small grant for implementation research on infectious diseases of poverty.	2 715		Ethiopia
RKM/HIK/HS	Dr Chigozie Jesse Uneke	M	Uneke, Dr Chigozie Jesse	Small grant for implementation research on infectious diseases of poverty.	2 980		Nigeria
RKM/HIK/HS	Agu, Dr Adaoha Pearl	W	Agu, Dr Adaoha Pearl	Small grant for implementation research on infectious diseases of poverty.	2 952		Nigeria
RKM/HIK/HS	Okedo-Alex, Dr Ijeoma Nkem Nina	W	Okedo-Alex, Dr Ijeoma Nkem Nina	Small grant for implementation research on infectious diseases of poverty.	2 990		Nigeria
	Ms Zarina Khamitova	W	Khamitova, Ms Zarina	TDR Small Grants Scheme in the WHO European Region	23 800		Kazakhstan

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B80154	Gavin Yamey	M	Duke University Accounts Receivable	Analysis of health product pipeline for the poverty related neglected diseases using the TDR Portfolio to-impact (P2I) R&D modelling tool.	280 738		United States
B80166	Kathelene Weiss	W	Cochrane Collaboration	Undertake selection and administration of 3-4 candidates from low- and middle-income countries to attend the 2019 Cochrane Colloquium "Embracing Diversity"	10 000		United Kingdom
B80227	Mr Balijinder Gill	M	University of Southampton	Work to increase the number and health coverage of the product profiles in the Health Product Profile Directory.	25 000		United Kingdom
B80255	Dr Bakhytkul Sarymsakova	W	Regional Training Centre in Health Research	Organization of the Almaty, Kazakhstan workshop for the TDR Small Grants Scheme grantees	24 015		Kazakhstan
F1000-TDR agreem.2018-19	Dr Philip Dooner	M	F1000 Research Ltd	F1000 Research Ltd to create an overarching Gateway on its publishing platform which will be called TDR Gateway.	16 500		United Kingdom
B80118	Ms Razanah Solomon	W	South African Medical Research Council	Selection and administration of candidates from LMICs to attend the 3rd African Cochrane Indaba event in March 2019	25 000		South Africa
F1000-art.June2019	Dr Philip Dooner	M	F1000 Research Ltd	Publication on F1000 Gateway Platform of TDR article title : Effectiveness of a mobile health intervention on infant and young child feeding among Children of 24 months of age in rural Islamabad over six months duration.	1 000		United Kingdom

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F1000-art.Oct2019	Dr Philip Dooner	M	F1000 Research Ltd	Publication on F1000 Gateway Platform of TDR article title : Pipeline analysis of a vaccine candidate portfolio for diseases of poverty using the Portfolio-to-Impact modelling tool.	1 000		United Kingdom
BMC_article_Prod_Profile	Michele Schiena	M	Biomed Central Ltd	Invoice for publication of article "Analysis of the Health Product Profile Directory. A new tool to inform priority setting in global public health	2 278		Germany
ORCID 2019-2021	Dr Sarah Hershberger	W	ORCID Inc	Renewal of the membership of TDR with ORCID	8 240		United States
ESSENCE_2019	Mrs Abiodun Oladapo	W	Oladapo, Mrs Abiodun Oluwakemi	Activities of the Secretariat and the ESSENCE workplan for 2019.	12 425		Switzerland
B80137	Dr Imelda Bates	W	Liverpool School of Tropical Medicine	Development of a Theory of Change (ToC) for three WHO entities: TDR, HRP and AHPSR	9 622		United Kingdom
B80144	Dr Karin Dyason	W	Dyason, Dr Karin	Revision of the ESSENCE Good Practice Document on Research Costing (Conceptual Leadership and Coordination)	24 500		South Africa
B80145	Mr Gerard Ralphs	M	Ralphs, Mr Gerard Patrick	Revision of the ESSENCE Good Practice Document on Research Costing (Analysis and literature review)	5 250		South Africa
B80146	Mrs Abiodun Oladapo	W	Oladapo, Mrs Abiodun Oluwakemi	Revision of the ESSENCE Good Practice Document on Research Costing (Administrative Support)	14 000		Switzerland
ESSENCE Sarima 2019	Kristy-Lee Muller	W	Sarima	Expenditures for meeting "Developing and Supporting Women Researchers in Africa" SARIMA Conference 2019	1 516		South Africa

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ID B80221	Ms Latoya Mc Donald	W	Southern African Research & Innovation Management Association (Sarima)	Support the 2019 Southern African Research and Innovation Management Association (SARIMA) conference - between 3 - 6 September 2019.	48 389		South Africa
ID B80254	Ms Latoya Mc Donald	W	Southern African Research & Innovation Management Association (Sarima)	Support the ESSENCE/WHO (TDR)/SARIMA Workshop and travel grants to the International Network of Research Management Societies (INORMS) 2020 Congress, Hiroshima, Japan.	69 998		South Africa
B80008	Mrs Elizabeth Charles	W	Charles, Mrs Elizabeth Anne	TDR Global Community Outreach Coordination	3 360		United States
B800063	Mrs Inga Savin	W	Savin, Mrs Inga	TDR Global Business case and fundraising initiative	3 750		France
TDR Global	Mia Hoole	W	Because Stories	Communication services to TDR Global	19 033		South Africa
B40318-2019	Mr Paul Sockol	M	Digital Science & Research Solutions Inc	TDR Global platform. This contract covers the activities of hosting, maintenance, update, upgrade and Licence for the Elements technology for the year 2019.	53 530		United States
B80155	Mr Mihai Simion	M	Simion, Mr Mihai Marian	Compile information to complete TDR Global user profiles	10 000		Romania
B80008_2019	Mrs Elizabeth Charles	W	Charles, Mrs Elizabeth Anne	TDR Global Facilitator of networking, sharing and learning.	17 500		United States
B80176-TDR Global	Dr Joseph Tucker	M	SESH Global Llc	TDR Global SESH Engagement Projects-Crowdfunding and Mentorship	49 500		China
B80182-TDR Global	Dr Phyllis Dako-Gyeke	M	University of Ghana	Regional Training Centre promoting and creating TDR Global community across Africa	50 000		Ghana
B80190-TDR Global	Mrs Maria Isabel Echavarria	W	Cideim	TDR Global Mobilization Initiative for the Americas	50 280		Colombia

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B80190-TDR Global	Prof. Ova Emilia	W	Kerjasama Penelitian Pusat Kedokteran Tropis Fk Ugm	Grant LOA with the University of Gadjah Mada, Faculty of Medicine, Public Health and Nursing (Kerjasama Penelitian Pusat Kedokteran Tropis Fk Ugm) Yogyakarta, Indonesia	49 900		Indonesia
TDR Global Comms Strategy	Maria Hoole	W	Because Stories	TDR Global communication strategy	23 626		South Africa
B80318	Dr Joseph Tucker	M	SESH Global Llc	TDR Global Management of Open Call on communications	8 000		China
TDR Global compendium	Maria Hoole	W	Because Stories	A compendium showcasing selected scientists supported by TDR	9 717		South Africa

TDR funding in 2019

Contributor	
Core contributions	Amount (US\$)
Sweden (1)	5,037,630
United Kingdom of Great Britain and Northern Ireland	3,575,990
Switzerland	1,688,843
Luxembourg	1,114,827
Germany	1,016,387
Belgium	707,547
World Health Organization	700,000
Norway	324,957
Spain	112,083
China	110,000
Japan	100,000
India	55,000
Thailand (2)	
Malaysia	25,000
Mexico	10,000
Panama	7,000
Miscellaneous	1,059
Subtotal	14,586,323
Contributors providing specific project funding	Amount (US\$)
Bill & Melinda Gates Foundation	1,771,434
United Nations Development Programme	980,000
National Institute of Health Research (NIHR), United Kingdom	967,601
Sweden	471,945
U.S. Agency for International Development (USAID)	358,175
World Health Organization departments	328,589
Luxembourg	111,483
United Kingdom of Great Britain and Northern Ireland	23,432
Subtotal	5,012,660
Total contributions	19,598,983

1. The contribution from the Government of Sweden reflects the 2019 portion of their 2018-2019 funding agreement.
2. The 2019 contribution from the Government of Thailand was reported in 2018.