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TDR Portfolio of Expected Results for 2018-2019

Progress report at 31 December 2018

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ER 1.1.1 Country preparedness for disease outbreaks

Team: Intervention and Implementation Research

Strategic working area: Research for Implementation

Workstream and outcome: Research for Policies

Section I. Expected Result Identification

ER status update: On track

Manager's Name: P. Oliaro (retired as of 01 Nov 2018), from 01 Nov 2018 C Merle

TDR staff involved: C. Halleux, M. Villasol, A. Masoudi, E. Johnson, F. Wagner

Number of partners/staff/consultants: A. Kroeger, Others TBD

Synergy with other TDR work stream(s): Vectors, Environment and Society (VES)

Funding sources: UD + DF

Partners: Endemic country programmes and researchers, WHO regional offices

Review mechanism: SWG + other ad-hoc or collaboration-based review systems as appropriate

WHO Region(s): Global **Country(ies):** TBD

Diseases: Arboviruses: Dengue, Chikungunya, Zika.

Other infectious diseases of epidemic potential

Start date: 01-Nov-2011

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information as applicable

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Objectives aligned
Roles and responsibilities of each partner are complementary	Yes	Complementary role and responsibilities
Coordination and decision-making are transparent	Yes	Transparent coordination
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Visibility of TDR highlighted

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$340,000	\$140,000	\$200,000
US\$ 50M budget	\$900,000	\$600,000	\$300,000
Expenditures and encumbrances	\$95,697	\$47,579	\$48,118
Balance	\$244,303	\$92,421	\$151,882

Section III. Objectives and results chain

Objectives: 1: To enable countries improve their surge capacity and case management during outbreaks

2: To identify reliable epidemiological, vectorial and climatic indicators for aedes borne arboviral outbreaks and to develop an integrated prevention, surveillance and outbreak response model.

Objectives updated:

ER outcome: 1. Training curriculum utilized in countries for preparing researchers and MoH staff for clinical research during disease outbreaks

2. Guidelines and policy decisions for arbovirus outbreak response informed by TDR outputs

Progress made towards outcome: CREDO training curriculum issued and available online. Work on early warning and response system (EWARS) for dengue outbreaks further developed, online tool improved and more training provided to countries to increase uptake and use of the tool.

Output 1: Training curriculum and 'train the trainers' curricula

Indicator: Curricula available on TDR website and sent to Regional Training Centres
Target date: 31-Dec-2018
Related objectives: 1
Progress status: Completed
Progress description: final 'Clinical REsearch During Outbreaks' training material put on publicly accessible website (<https://isaric.tghn.org/credo/>)

Output 2: Consensus agreement of major stakeholders on critical elements of policies/guidelines for arbovirus surveillance

Indicator: Stakeholder meeting report
Target date: 31-Dec-2023
Related objectives: 2
Progress status: On track

Progress description: In 2018 we were invited by the WHO-NTD department to draft the basic text for the surveillance chapter in the forthcoming 2nd edition of the global dengue/ Zika/ Chikungunya guidelines. The importance of a robust national surveillance system was discussed in the stakeholder meeting in Nov. 2018. However, more countries have to be convinced to invest in their surveillance systems, which will be the task for the coming years.

Output 3: Consensus agreement of major stakeholders on critical elements of policy/guidelines for arbovirus outbreak response

Indicator: Stakeholder meeting report
Target date: 31-Dec-2023
Related objectives: 2
Progress status: On track
Progress description: The work on the early warning and response system (EWARS) for dengue outbreaks has been intensified: Dashboards for easy use of the web-based tool have been developed and installed in countries. An updated operational guide for EWARS has been made available to the general public on the TDR web-site as well as a scientific article for the academic audience. EWARS has also been shown to be applicable to Chikungunya and most probably to Zika. PAHO and SEARO/WPRO are involved in the dissemination of EWARS. A flyer and model ppt presentation are being developed for the promotion of EWARS. Work on evidence base response methods has been started.

Changes to outcomes/outputs: CREDO training curriculum issued and available online. Work on early warning and response system (EWARS) for dengue outbreaks further developed, online tool improved and more training provided to countries to increase uptake and use of the tool.

Approach to ensure uptake: National control programmes and WHO (HQ, ROs) fully involved in research planning, implementation and analysis.

Uptake / use indicator: TDR outputs considered among evidence informing guidelines and policy decisions or control programme advisory committee recommendations

Target date: 31-Dec-2023

Indicator status: On track

Publication plan: Scientific meetings, Open access journals, TDR website

Open access publications: <https://isaric.tghn.org/credo/>

Approach to ensure gender and geographic equity: Gender specific Zika issues as they relate to outbreak surveillance and response will be taken into account during research design. All affected regions will be considered.

Section IV. Concept and approach

Rationale: 1. Dengue and Zika outbreaks have shown the importance of coping capacity (surge capacity) and case management under disease outbreak conditions. Availability of training material based on lessons learnt in the past outbreaks will facilitate and accelerate adequate managerial response during the next epidemic.

2. Chikungunya and Zika virus outbreak surveillance and response tools are needed. TDR is in a unique position to lead this because of its prior experience and track record with research for Dengue

3. Ebola and Zika outbreaks have shown the importance of and challenges for doing clinical under disease outbreak conditions. Availability of training material based on lessons learnt in the past outbreaks will facilitate and accelerate clinical research during the next epidemic.

Design and methodology: Based on design and methodology employed and lessons learnt from this research relating to Dengue

Based on experience with planning and implementing research during the Ebola and Zika virus outbreak

Approach to ensure quality: SWG and as applicable other expert review of proposals, progress reports, monitoring of application of the research protocol.

Significant risk 1: Lack of interest outside epidemic peaks resulting in insufficient funding

Actions to mitigate: Raise awareness of potential donors; explore alternative ways of supporting work

Risk status: On track

Risk status:

Estimated leverage description: TBD

Estimated 2018-19 (\$\$)

ER 1.1.4 Country resilience to the threat of drug-resistant infections

Team: Intervention and Implementation Research

Strategic working area: Research for Implementation

Workstream and outcome: Research for Policies

Section I. Expected Result Identification

ER status update: On track

Manager's Name: AC. Kuesel, R Zachariah

TDR staff involved: P. Olliaro (to end October 2018), C. Merle, C. Halleux, TBD, M. Villasol, A. Masoudi, E. Johnson, F. Wagner

Number of partners/staff/consultants: around 30

Synergy with other TDR work stream(s): 1.1.7 - Maximized utilization of safety information for public health decision making, 1.1.8 Maximized utilization of safety information for public health decision making, 1.2.1 - Strategies to achieve and sustain disease elimination

Funding sources: UD + DF

Partners: Control programmes, research institutions, hospitals/clinics in target countries, WHO country offices in Nepal, Vietnam, Myanmar, Ghana, Uganda, and Colombia, Fleming Fund, FIND, implementing partners

Review mechanism: SWG + other ad-hoc or collaboration-based review systems as appropriate

WHO Region(s): Global **Country(ies):** Nepal, Vietnam, Myanmar, Ghana, Uganda, Colombia, Cameroon (additional countries for 2019 onward TBD)

Diseases: Helminthic, malaria, bacterial, mycobacterial

Start date: 01-Jan-2009

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information Applied for before signature of agreements requiring FENSA compliance review (i.e. not for TSAs or APWs awarded as per procurement rules)

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	Yes	
Coordination and decision-making are transparent	Yes	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$430,000	\$350,000	\$80,000
US\$ 50M budget	\$950,000	\$850,000	\$100,000
Expenditures and encumbrances	\$48,174	\$48,174	\$ 0
Balance	\$381,826	\$301,826	\$80,000

Section III. Objectives and results chain

Objectives: 1: To support countries in developing workable approaches to implementation of effective strategies for detecting and containing drug resistant infections

Objectives updated:

ER outcome: Guidelines, policies or policy implementation plans (as applicable) informed by TDR outputs

Progress made towards outcome: New evidence generated on strategies for monitoring resistance in SMC and evaluation of role of CRP protein as biomarker for bacterial infection in febrile illnesses that can open ways to new research and / or directly feed future related guidelines or policies

Output 1: OR/IR strategies for countries to build effective systems for monitoring and responding to emerging drug resistance of all relevant infectious agents

Indicator: Strategies endorsed by stakeholders at relevant levels
Target date: 31-Dec-2023
Related objectives: 1
Progress status: On track
Progress description: Long term result of other outputs

Output 2: Evaluation of practical approaches to improve targeted treatment and reduce drug misuse and risk of resistance

Indicator: Reports of evaluations available (publications or other documents)
Target date: 31-Dec-2023
Related objectives: 1
Progress status: On track
Progress description: Update on CRP project. Two new initiatives will be contributing to this output from 2019: the AMR SORT-IT project and a collaboration with FIND on the effect of availability of RDTs and 'health education' on antimicrobial prescribing practices

Output 3: Strategies for monitoring and responding to potential emergence of drug resistance

Indicator:	Report to SWG (and DF agency, as applicable)
Target date:	31-Dec-2023
Related objectives:	1
Progress status	Delayed
Progress description:	Progress in project identifying genetic markers of suboptimal response to ivermectin delayed in one collaborating laboratory due to critical equipment not functioning

Output 4: Strategies for monitoring potential emergence of resistance during Seasonal Malaria Chemoprevention

Indicator:	Report to SWG (and DF agency, if applicable)
Target date:	31-Dec-2023
Related objectives:	1
Progress status	On track
Progress description:	Review commissioned of all evidences accrued since WHO GMP 2012 recommendations for implementing SMC on distribution and drug administration, eligibility, duration of the intervention period, prioritisation of areas where SMC should be introduced, criteria for deciding when it is appropriate to stop SMC distribution in an area, and methods for monitoring SMC programmes including safety and drug resistance monitoring.

Changes to outcomes/outputs: New evidence generated on strategies for monitoring resistance in SMC and evaluation of role of CRP protein as biomarker for bacterial infection in febrile illnesses that can open ways to new research and / or directly feed future related guidelines or policies

Approach to ensure uptake: Early engagement with partners, regular updates to relevant programmes and involvement of relevant stakeholders in consultations, publications

Uptake / use indicator: New or updated/improved guidelines, policies or policy implementation plans (as applicable) informed by TDR outputs

Target date: 31-Dec-2025

Indicator status: On track

Publication plan: Scientific meetings, Open access journals, TDR website

Open access publications:

Approach to ensure gender and geographic equity: Beneficiaries: Drug resistance affects both sexes alike. Geographic equity will be dependent on the disease addressed. Calls for proposals will include the information that TDR is encouraging women scientists to apply.

FOR DF: Collaborators will be those participating in the preparation and submission of the proposal funded by third parties - if applicable. Policy and issue briefs will be used for improved communication.

Section IV. Concept and approach

Rationale: While resistance to antibiotics and antimalarials are recognized as a public health challenge, emerging resistance also needs to be considered for NTDs Neglected Tropical Diseases which rely on one drug or drug combination for control or elimination of the significant individual and public health impact.

To implement effective plans for containment of / response to emerging drug resistance of parasites, countries need to know the (i) the presence/frequency of diminishing parasite drug susceptibility, (ii) probability/time course of increasing prevalence of parasites with diminished drug susceptibility, (iii) impact of alternate control and elimination strategies on overall reduction in parasite transmission, (iv) the strengths and weaknesses of their surveillance and containment systems and appropriate strategies to improve them.

To implement effective plans for containment of /response to emerging drug resistance of bacteria (AMR), countries need support for: a) Improved surveillance and reporting monitoring of the AMR situation in countries b) Identifying drivers of antimicrobial drug resistance in human populations and enhancing AMR prevention c) Improving anti-microbial stewardship and procedural interventions d) build adequate and sustainable structures and capacity for evidence-informed decision-making at national level d) foster mechanisms for knowledge sharing to maximize the potential for broader research impact

Design and methodology: The approach will be multi-disciplinary as appropriate for the outputs and the infectious agent(s) addressed

Approach to ensure quality: Selection of investigators with appropriate expertise through review of their proposals by SWG complemented with external subject matter experts, complemented with specific training activities.

Significant risk 1: Insufficient funding

Actions to mitigate: Raise awareness of potential donors; explore alternative ways of supporting work

Risk status: On track

Estimated leverage description: Update for helminth project after receipt of progress reports in December

Estimated 2018-19 (\$\$)

ER 1.1.5 Directions for development and accelerated access to new tools and strategies

Team: Intervention and Implementation Research

Strategic working area: Research for Implementation

Workstream and outcome: Optimized approaches for effective delivery and impact assessment of public health interventions

Section I. Expected Result Identification

ER status update: On track

Manager's Name: P Olliaro (up to end of Oct 2018)

TDR staff involved: A Kuesel, C Merle, C Halleux, M. Villasol, A. Masoudi, E. Johnson, F. Wagner, R Zachariah

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): Research Capacity Strengthening and Knowledge Management

Funding sources: UD + DF

Partners: Medicines Development for Global Health, DNDi, FIND

Review mechanism: SWG + other ad-hoc or collaboration-based review systems as appropriate

WHO Region(s): Global

Country(ies): TBD

Diseases: Multiple

Start date: 01-Jan-2009

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information WHO License to MDGH provided before FENSA resolution.

Moxidectin related activities moving to ER1.2.1, FENSA clearance submission in preparation. DNDi in official relations with WHO, FIND TBC

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	Yes	
Coordination and decision-making are transparent	Yes	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$200,000	\$100,000	\$100,000
US\$ 50M budget	\$350,000	\$250,000	\$100,000
Expenditures and encumbrances	\$28,309	\$28,309	\$ 0
Balance	\$171,691	\$71,691	\$100,000

Section III. Objectives and results chain

Objectives: 1. To foster innovation to fill gaps in new products for neglected infections

2. To engage stakeholders

3. To promote open-source and data-sharing approaches to expedite and optimise research and innovation;

4. To identify priorities, opportunities

Objectives updated:

ER outcome: 1. Researchers, developers, funders provided with knowledge available through TDR on specific gaps, needs, opportunities, potential approaches, partners, products and technologies;

Knowledge applied by partners resulting in more efficient processes

Progress made towards outcome: Support to partners to facilitate research provided as needed (see below) and progress made with data platforms and dataset analysis for key projects (see details below)

Output 1: Outputs of TDR research projects and TDR staff and advisor expertise used to provide directional perspective for R&D for new tools (including TPPs and advice/support to R&D sponsors) as well as new ways of implementing tools

Indicator: Number of initiatives engaged

Target date: 31-Dec-2023

Related objectives: 1-4

Progress status On track

Progress description: Medicines Development for Global Health (MDGH): MDGH submitted for and received US FDA approval of moxidectin for onchocerciasis based on TDR research and with TDR staff input into the NDA

EDCTP co-funded consortium: EDCTP approved 4.7 Mill Euro grant application written based on TDR staff expertise for further studies needed to improve basis for adoption of moxidectin into country policies. The consortium will include 10 different institutions including 2 in DRC and one in Ghana (TDR signature pending FENSA clearance of institutions);

DNDi: TDR is supporting DNDi planning of trials of new drug candidates for onchocerciasis and DNDi drug development for VL and CL and DNDi research platforms for onchocerciasis and for VL/CL.

Output 2: Optimised methodologies to assess response to case-based and population-based interventions

Indicator: Number of methodologies revised and optimised; uptake of revised methodologies; quality of resulting research

Target date: 31-Dec-2023

Related objectives: 1-4

Progress status: On track

Progress description: Datasets of schistosomiasis and STH treatments collected; analyses are being finalised.

Dataset of Loa-loa patients being collected for analysis

Output 3: Strategy development, implementation and monitoring

Indicator: SWG meeting reports and recommendations

Target date: 31-Dec-2023

Related objectives: 1-4

Progress status: On track

Progress description: SWG 2018 report and recommendation available

Changes to outcomes/outputs: Support to partners to facilitate research provided as needed (see below) and progress made with data platforms and dataset analysis for key projects (see details below)

Approach to ensure uptake: Quality of work generated and inclusiveness of stakeholders will underpin these activities

Uptake / use indicator: Number of projects/initiatives which take into account TDR contributions/directions, Number of researchers, developers, organisations, funders utilizing TDR input/output

Target date: 31-Dec-2025

Indicator status: On track

Publication plan: All findings will be made publicly available

Open access publications: Opoku et al. Single dose moxidectin versus ivermectin for *Onchocerca volvulus* infection in Ghana, Liberia, and the Democratic Republic of the Congo: a randomised, controlled, double-blind phase 3 trial. *Lancet*. 2018 Oct 6;392(10154):1207-1216. doi: 10.1016/S0140-6736(17)32844-1

Olliaro P, Grogl M, Boni M, Carvalho EM, Chebli H, Cisse M, Diro E, Fernandes Cota G, Erber AC, Gadisa E, Handjani F, Khamesipour A, Llanos-Cuentas A, López Carvajal L, Grout L, Lmimouni BE, Mokni M, Nahzat MS, Ben Salah A, Ozbel Y,

Pascale JM, Rizzo Molina N, Rode J, Romero G, Ruiz-Postigo JA, Gore Saravia N, Soto J, Uzun S, Mashayekhi V, Vélez ID, Vogt F, Zerpa O, Arana B. Harmonized clinical trial methodologies for localized cutaneous leishmaniasis and potential

for extensive network with capacities for clinical evaluation. *PLoS Negl Trop Dis*. 2018 Jan 12;12(1):e0006141. doi: 10.1371/journal.pntd.0006141. eCollection 2018 Jan. PubMed PMID: 29329311; PubMed Central PMCID: PMC5785032.

Olliaro et al. 2018 Creative use of the priority review voucher by public and not-for-profit actors delivers the first new FDA-approved treatment for river blindness in 20 years, *PLOS NTD*, <https://doi.org/10.1371/journal.pntd.0006837>

Olliaro P, Grogl M, Boni M, Carvalho EM, Chebli H, Cisse M, Diro E, Fernandes Cota G, Erber AC, Gadisa E, Handjani F, Khamesipour A, Llanos-Cuentas A, López Carvajal L, Grout L, Lmimouni BE, Mokni M, Nahzat MS, Ben Salah A, Ozbel Y,

Pascale JM, Rizzo Molina N, Rode J, Romero G, Ruiz-Postigo JA, Gore Saravia N, Soto J, Uzun S, Mashayekhi V, Vélez ID, Vogt F, Zepa O, Arana B. Harmonized clinical trial methodologies for localized cutaneous leishmaniasis and potential for extensive network with capacities for clinical evaluation. PLoS Negl Trop Dis. 2018 Jan 12;12(1):e0006141. doi: 10.1371/journal.pntd.0006141. eCollection 2018 Jan. PubMed PMID: 29329311; PubMed Central PMCID: PMC5785032

Approach to ensure gender and geographic equity: Gender and geographic equity considerations will be included

Section IV. Concept and approach

Rationale: Control programme objectives cannot be reached for many poverty-related infectious diseases (PRIDs), especially NTDs, because they lack new effective and safe tools for their diagnosis and treatment, as well as efficient methods for quantifying the effect

Design and methodology: Inclusiveness and openness are the guiding principles. The scope of this project covers essential, intertwined elements to develop and assess the right tools that will help achieve control and elimination targets

Approach to ensure quality: The entire project will be open to public scrutiny by definition, which will ensure quality

Significant risk 1: Resistance to change by key stakeholders unwilling to adopt new solutions

Actions to mitigate: Achieving critical mass of supporters; showing concrete results

Risk status: On track

Estimated leverage description: It is difficult to quantitate leverage across this spectrum of activities. When it comes to R&D by third parties it will be in the tens/hundreds of millions. The figures below are a conservative estimation of contributions by other like-minded organization.

MDGH invested around 15 Million US\$ from around 2014 to June 2018. Investment of commercial partner which withdrew from the collaboration agreement with WHO in 2011 is estimated at having exceeded 20 Million US\$

Estimated 2018-19 (\$\$)

ER 1.1.7 **Maximized utilization of data for public health decision making**

Team: Intervention and Implementation Research

Strategic working area: Research for Implementation

Workstream and outcome: Research for Implementation

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Rony Zachariah

TDR staff involved: C. Halleux , C. Merle, M. Villasol, A. Masoudi, E. Johnson + relevant RCS/KM staff; F. Wagner, Olliaro. P

Number of partners/staff/consultants: 3

Synergy with other TDR work stream(s): 1.1.4. Country resilience to the threat of drug resistant infections

Funding sources: UD + DF

Partners: Public health programmes in target countries, Ministries of health, NGOs, academic institutions

Review mechanism: SWG IIR + other ad-hoc or collaboration-based review systems as appropriate

WHO Region(s): Global

Country(ies): Multiple TBD

Diseases: Multiple TBD

Start date: 01-Jan-2012

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information Some are in process for 2019

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Aligned
Roles and responsibilities of each partner are complementary	Yes	SORT IT
Coordination and decision-making are transparent	Yes	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	TDR Website updated. The process of inclusion of LOGOS etc is underway on lectures, material etc

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$1,050,000	\$400,000	\$650,000
US\$ 50M budget	\$1,650,000	\$650,000	\$1,000,000
Expenditures and encumbrances	\$574,102	\$158,066	\$416,036
Balance	\$475,898	\$241,934	\$233,964

Section III. Objectives and results chain

Objectives: 1. Stimulate and support the effective use of public health system data for evidence-based decision making

2. Promote and support research data sharing for evidence-based decision making (guidelines/policy/research/practice)

Objectives updated:

ER outcome: Strengthened evidence-base for policy and practice decisions in terms of both disease control and research

Progress made towards outcome: In 2018, 129 participants were enrolled in training on effective use of data through the SORT IT programme in 12 countries. Of 50 completed SORT IT courses by September 2018, with 549 participants, 87% completed all milestones, 534 papers were submitted and 432 published. Of 269 papers assessed 18 months after completion, 68% reported an effect on policy and practice.

Output 1: Build capacity for the effective collection and analysis of data

Indicator:	Number of data analyses conducted and reported.
Target date:	31-Dec-2023
Related objectives:	1
Progress status	On track
Progress description:	129 datasets analysed in 2018 and will be reported through manuscripts during 2018/2019

Output 2: Promote effective policy decision processes and outputs through engaging with policy makers (MoH) to stimulate use of data

Indicator:	% of individuals from LMICs (Ministries of Health and Disease control Programmes) as first authors and last authors of SORT IT publications
Target date:	31-Dec-2023

Related objectives:	1
Progress status	On track
Progress description:	Of 269 papers assessed 18 months after completion, 68% reported an effect on policy and practice. In 2018, Individuals from LMICS (Ministries of Health and Disease control Programmes) constituted 98% of first authors, and 81% of last authors were from LMICS. This shows high participation and ownership of programme staff

Output 3: Foster the development of interoperable data platforms

Indicator:	Number of data platforms
Target date:	31-Dec-2023
Related objectives:	1,2
Progress status	On track
Progress description:	Schistosomiasis platform now moved to IDDO

Output 4: Evidence informed policy

Indicator:	Number of evidence-informed policies emerging from policy dialogues
Target date:	31-Dec-2023
Related objectives:	1
Progress status	Delayed
Progress description:	Progress with the key partner has stalled and we hope to make progress through AMR in 2019-2020.

Changes to outcomes/outputs: In 2018, 129 participants were enrolled in training on effective use of data through the SORT IT programme in 12 countries. Of 50 completed SORT IT courses by September 2018, with 549 participants, 87% completed all milestones, 534 papers were submitted and 432 published. Of 269 papers assessed 18 months after completion, 68% reported an effect on policy and practice.

Approach to ensure uptake: Research questions identified and documents discussed early with programmes, stakeholders at national and international level as well as WHO offices where applicable

Uptake / use indicator: Number of policy and/or decisions taking into account outputs from this project

Target date: 31-Dec-2025

Indicator status: On track

Publication plan: Documents for WHO control programmes; papers will be developed when and if appropriate

Open access publications: 58 publications until November 2018 and all of which feature on the TDR website. By 2018 roughly 45% of all publications had a women as first author.

Approach to ensure gender and geographic equity: Geographic and gender equity depends on condition/question identified. If calls for proposals are issued, they will specify that women are encouraged to apply.

Section IV. Concept and approach

Rationale: WHO and countries need evidence for informing operational decisions, recommendations/guidelines and policies. TDR can play a key role in crystallising questions that may be answered by available evidence, and in strengthening country capacity for compilation and analysis/interpretation of available data. This will also identify knowledge and information gaps and consequently inform research agendas and move research into action.

Design and methodology: Priority areas will be identified by the countries and WHO programmes. Countries will play a central role in identifying the implementing staff. Data sharing platforms will be created involving a broad range of stakeholders including relevant data providers, users and funders.

Approach to ensure quality: TDR facilitated training of country-identified implementers, customized to their capacity, milestones and targets including publishing as a part of quality control, Standard Operating Procedures where appropriate customized to their capacity, appropriate data base platform selected

Significant risk 1: Possibility of “weaning funding for TDR” for classical SORT IT courses

Actions to mitigate: Fund raising efforts, including outside usual regular donors

Risk status: On track

Significant risk 2: The risk of “quality creep” (lose of quality) as we franchise the model to other institutions

Actions to mitigate: Quality indicators and strict methodology to be implemented for institutions wishing to franchise SORT IT model

Risk status: On track

Estimated leverage description: TBD

Estimated 2018-19 (\$\$)

ER 1.1.8 **Maximized utilisation of safety information for public health decision making**

Team: Intervention and Implementation Research

Strategic working area: Research for Implementation

Workstream and outcome: Research for Implementation

Section I. Expected Result Identification

ER status update: On track

Manager's Name: C. Halleux

TDR staff involved: P. Oliaro (retired as of 1 Nov 2018) -C. Merle - E. Johnson

Number of partners/staff/consultants: TBC

Synergy with other TDR work stream(s): 1) Research Capacity Strengthening (RCS) for building capacities in countries; 2) ER 1.1.7 - Maximized utilization of data for public health decision making

Funding sources: UD + DF for UNDP A&D project

Partners: Other departments (HIV, TB, ..) within WHO. Univ of Ulster. UNDP and PATH, National control Programmes, Researchers and research institutions (academia, others).

Review mechanism: SWG, and Access and Delivery partnership scientific advisory group convened by UNDP for ADP project

WHO Region(s): Global

Country(ies): Not country specific

Diseases: Not disease specific. This area of work is across diseases, beyond infectious diseases.

Start date: 01-Jan-2014

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information The ones that had to be cleared were cleared. Not all had to be cleared.

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Still aligned
Roles and responsibilities of each partner are complementary	Yes	Clear for all
Coordination and decision-making are transparent	Yes	Transparent decision making and coordination
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Attribution of TDR role in the partnership highlighted

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$1,000,000	\$200,000	\$800,000
US\$ 50M budget	\$1,300,000	\$200,000	\$1,100,000
Expenditures and encumbrances	\$226,679	\$13,311	\$213,368
Balance	\$773,321	\$186,689	\$586,632

Section III. Objectives and results chain

Objectives: 1. To provide policy makers with essential information on drug safety and contribute evidence on safety for WHO treatment and normative guidelines

2. To build capacity in countries to collect, assess and use drug safety data for decision making

Objectives updated:

ER outcome: Strengthened evidence on drug safety

Progress made towards outcome: Capacity in countries strengthened and systems put in place progressively to make better use of available safety data

Output 1: Capacity for safety monitoring of new drugs built in target countries

Indicator: Adverse event reporting rates in pilot countries

Target date: 31-Mar-2019

Related objectives: Objective 2

Progress status On track

Progress description: Reporting rate increased in the 3 ADP target countries (Ghana, Indonesia (reports for bedaquiline) and Tanzania)

Output 2: Improved evidence of drug safety in specific patient groups (e.g. HIV positive, pregnancy, MDR-TB, CL patients).

Indicator: At least two databases related to drug exposure obtained and analysed, in collaboration with control programmes and other WHO Departments.

Target date: 31-Dec-2020

Related objectives: Objectives 1 and 2

Progress status On track

Progress description: Data from aDSM database analysed before review of TB treatment guidelines. Data from the pregnancy registry to be analysed for end of 2018.

Output 3: Innovative approaches for safety monitoring piloted that facilitate and improve normative guidance (e.g. safety monitoring in mass drug administration, cohort studies in high risk populations, community based surveillance)

Indicator:	Utility of one innovative approach assessed by end of 2018
Target date:	31-Dec-2018
Related objectives:	Objectives 1 and 2
Progress status	Delayed
Progress description:	Meeting to share lessons learned across the 3 projects completed is pending. Publication of one of the study completed. Two other studies have pending publications.

Changes to outcomes/outputs: Capacity in countries strengthened and systems put in place progressively to make better use of available safety data

Approach to ensure uptake: Involvement of different WHO departments and control programmes.

Capacity built at country level.

Uptake / use indicator: Incorporation of evidence in treatment guidelines

Target date: 31-Dec-2019

Indicator status: On track

Publication plan: Open peer reviewed publications, presentations at congresses, dissemination in country

Open access publications: 2 publications (one on PV strategies in SMC and one on the aDSM database):

1: Ndiaye JA, Diallo I, Ndiaye Y, Kouevidjin E, Aw I, Tairou F, Ndoeye T, Halleux CM, Manga I, Dieme MN, Ndiop M, Faye B, Olliaro P, Merle CS, Gaye O, Milligan P. Evaluation of Two Strategies for Community-Based Safety Monitoring during Seasonal Malaria Chemoprevention Campaigns in Senegal, Compared with the National Spontaneous Reporting System. *Pharmaceut Med.* 2018;32(3):189-200. doi: 10.1007/s40290-018-0232-z. Epub 2018 Jun 1. PubMed PMID: 29983573; PubMed Central PMCID: PMC6006231.

2: Halleux CM, Falzon D, Merle C, Jaramillo E, Mirzayev F, Olliaro P, Weyer K. The World Health Organization global aDSM database: generating evidence on the safety of new treatment regimens for drug-resistant tuberculosis. *Eur Respir J.* 2018 Mar 22;51(3). Pii: 1701643. doi: 10.1183/13993003.01643-2017. Print 2018 Mar. PubMed PMID: 29567719.

Approach to ensure gender and geographic equity: Safety in pregnancy targeted in output 2

Data from DEC.

Contracts with qualified women investigators favoured.

Section IV. Concept and approach

Rationale: In most developing countries, weak pharmacovigilance systems and generalized under reporting explain that safety information is often lacking. A lot of work is needed at different levels and has been identified as priority to ensure a safe use of drug in developing countries. This even more important in programme where the drug are distributed at large scale and used as preventive treatment where the balance risk/benefit will be more easily challenged.

This ER looks at different ways of working with developing countries and programmes to help them to strengthen safety monitoring systems, collect and collate safety data, and use adequately data available to extract any useful safety information.

This should help generate data and evidence that will be used for policy decision and programmes implementation.

Design and methodology: The following methodology will be used:

- a) Development of central tools for collection of safety data and analysis of pooled data to identify evidence related to drug safety
- b) Establishment of pilot projects on drug safety for testing on the field of innovative reporting system for collection of safety data
- c) Analysis of data and presentation of data to relevant committees
- d) Capacity building at country level

Approach to ensure quality: a) Initial adequate training on the safety system to be implemented at country level

- b) Regular monitoring of projects implementation
- c) Involvement of experts in project design (pharmacovigilance, neonatologist, etc) from the beginning

Significant risk 1: Non acceptance of TDR approach by different WHO department or countries

Actions to mitigate: 1) Involvement of WHO partners and countries in the project planning from beginning of the projects.

Risk status: On track

Significant risk 2: Non acceptance of results by different WHO department or countries

Actions to mitigate: 1) Involvement of WHO partners and countries in the review of evidence obtained from beginning of the project.

2) Capacity built at country level to understand and interpret the data obtained

Risk status: On track

Significant risk 3: Low quality implementation at country level

Actions to mitigate: Careful selection, adequate training prior to country implementation and regular monitoring

Risk status: On track

Significant risk 4: Refusal from sites or countries to share data

Actions to mitigate: 1) Involvement of WHO partners and countries in the project planning from beginning of the projects.

Risk status: Planning phase

Estimated leverage description: Leverage is expected through voluntarily participation of collaborators, experts and partners.

Countries directly financing projects.

Estimated 2018-19 (\$\$) \$1,300,000

ER 1.2.1 Strategies to achieve and sustain disease elimination

Team: Intervention and Implementation Research

Strategic working area: Research for Implementation

Workstream and outcome: Research for Implementation

Section I. Expected Result Identification

ER status update: On track

Manager's Name: A Kuesel (Oncho), C Halleux (VL)

TDR staff involved: P Olliaro (retired since 1 Nov 2018), C Merle, C Halleux, M. Villasol, A. Masoudi, E. Johnson, F. Wagner

Number of partners/staff/consultants: A. Kroeger, others TBD

Synergy with other TDR work stream(s): 1.1.4 - Country resilience to the threat of drug-resistant infections

Funding sources: Mainly UD

Partners: Control programmes and research institutions in target countries

Review mechanism: SWG + other ad-hoc or collaboration-based review systems as appropriate

WHO Region(s): Global **Country(ies):** For VL: Bangladesh, India, Nepal. For Oncho/helminths: Ghana, Cameroon, Australia, DRC, American Samoa

Diseases: VL, Malaria, Oncho, LF, Schisto

Start date: 01-Mar-2014

End date: 31-Dec-2025

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information Yes, when required. Note: FENSA clearance for NSAs is not required for TSAs or APWs awarded according to procurement rules (i.e. competitively selected)

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Aligned
Roles and responsibilities of each partner are complementary	Yes	Role complementary
Coordination and decision-making are transparent	Yes	Coordination transparent
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Visibility of TDR highlighted

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$560,000	\$360,000	\$200,000
US\$ 50M budget	\$750,000	\$550,000	\$200,000
Expenditures and encumbrances	\$73,188	\$73,188	\$ 0
Balance	\$486,812	\$286,812	\$200,000

Section III. Objectives and results chain

Objectives: 1. Generate evidence to guide programmes on strategies to achieve and sustain elimination, where and when to stop intervention, and how to certify elimination

Objectives updated:

ER outcome: Guidelines and policy decisions informed by TDR outputs

Progress made towards outcome: Progress have been made in the generation of evidence that will lead to the ER outcome in reference

Output 1: Generate evidence on sustainable strategies for the elimination of VL in the sub-Indian continent

Indicator: Report to SWG

Target date: 31-Dec-2020

Related objectives:

Progress status On track

Progress description: Studies are on track. Study on Inesfly has been extended for further FU up to 42 months. New studies on case detection and vector control are running. New studies to start early 2019 are under ERC review.

Output 2: Improved basis for monitoring progress of preventive chemotherapy based elimination programmes towards elimination and for decisions to stop interventions

Indicator: Report to SWG, Results delivered to the country control programmes

Target date: 30-Jun-2021

Related objectives:

Progress status On track

Progress description: Oncho: Progress in Ghana slower than planned due to technical (equipment) problems, compensation through shifting funds within the Australian lab budget.

Output 3: Approaches to facilitate malaria elimination in target countries

Indicator:	Report to SWG, Results delivered to the country control programmes
Target date:	31-Dec-2023
Related objectives:	
Progress status	On hold
Progress description:	Subject to additional funding - no funds available yet

Output 4: WHO guidelines, country registration and country policies/implementation for moxidectin for onchocerciasis control and elimination with technical advice from TDR staff

Indicator:	WHO guidelines, country registration and country policies/implementation for moxidectin for onchocerciasis control and elimination
Target date:	31-Dec-2024
Related objectives:	
Progress status	On track
Progress description:	Output added in 4Q 2018 following June 2018 US FDA approval of moxidectin and 4Q2018 SWG recommendation that TDR should support activities required to prepare implementation of oncho control/elimination strategies including moxidectin

Changes to outcomes/outputs: Progress have been made in the generation of evidence that will lead to the ER outcome in reference

Approach to ensure uptake: Control programmes and researchers from the concerned countries are fully engaged in the design and implementation of the research and stakeholders at regional and international level are kept up to date.

Uptake / use indicator: TDR outputs considered among evidence informing decision making at global, regional and national level

Target date: 31-Dec-2025

Indicator status: On track

Publication plan: Scientific meetings, Open access journals, TDR website

Open access publications: Several VL articles published, all in open access.

Onchocerciasis-moxidectin: Opoku et al. 2018, Lancet 2018; 392: 1207–16; [http://dx.doi.org/10.1016/S0140-6736\(17\)32844-1](http://dx.doi.org/10.1016/S0140-6736(17)32844-1)

Approach to ensure gender and geographic equity: Calls for proposals will include the information that TDR is specifically looking to fund women scientists, geographic equity of researchers will depend on target disease and quality of proposals submitted, it is anticipated that results obtained in research countries will be applicable to others

Section IV. Concept and approach

Rationale: Some diseases are targeted for elimination in certain areas. Research is needed to inform appropriate tools, strategies and practices. While some of these can be broadly applied, others need to be targeted to the disease, and/or the interventions and/or specific epidemiological setting and/or the extent to which prevalence/incidence of infection have been reduced. TDR has been funding and managing research to support elimination goals in past biennia and is continuing this work.

Design and methodology: Continuation of collaboration with and between researchers and national/regional or global control programmes or WHO departments and national ministries as required. Calls for proposals with selection of projects for funding by the SWG and/or other external technical experts as appropriate.

Approach to ensure quality: Selection of investigators with appropriate expertise through review of their proposals by SWG complemented with external subject matter experts.

Significant risk 1: Insufficient funding

Actions to mitigate: Raise awareness of potential donors; explore alternative ways of supporting work

Risk status: Delayed

Estimated leverage description: TBD

Estimated 2018-19 (\$\$)

ER 1.2.6 **Optimized approaches for effective delivery and impact assessment of public health interventions**

Team: Intervention and Implementation Research

Strategic working area: Research for Implementation

Workstream and outcome: Research for Implementation

Section I. Expected Result Identification

ER status update: On track

Manager's Name: C. Merle

TDR staff involved: P. Oliaro, A Kuesel, C Halleux, A Ramsay, M. Villasol, A. Masoudi, E. Johnson, F. Wagner

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): Research Capacity Strengthening and Knowledge Management (RCS-KM) and 1.1.4 Vulnerability of case- and population-based interventions to the emergence of resistance

Funding sources: UD + DF

Partners: Control programmes and research institutions in target countries

Review mechanism: SWG + other ad-hoc or collaboration-based review systems as appropriate

WHO Region(s): Global **Country(ies):** Target countries/regions as required

Diseases: Case-based: Tuberculosis, Malaria, potentially Schistosomiasis

Population-based: Schistosomiasis, STH, Malaria, Oncho, LF

Start date: 01-Jan-2015

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information When applicable

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	Yes	
Coordination and decision-making are transparent	Yes	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$880,000	\$450,000	\$430,000
US\$ 50M budget	\$1,140,000	\$700,000	\$440,000
Expenditures and encumbrances	\$598,451	\$211,453	\$386,997
Balance	\$281,549	\$238,547	\$43,003

Section III. Objectives and results chain

Objectives: 1. Build country programme capacity to develop research questions and generate data to inform effective implementation of their policies

2. To support national programmes with evidence for the selection and effective implementation of strategies to control diseases through either case- or population-based approaches

Objectives updated:

ER outcome: Guidelines and policy decisions informed by TDR outputs

Progress made towards outcome: on track (see below)

Output 1: Strengthened regional network of West African National Tuberculosis Programmes (WARN-TB) capable of identifying research priorities, and designing and conducting OR/IR to generate the evidence-base for policy decisions to achieve the goals of the EndTB strategy

Indicator: Report provided to SWG and stakeholders at country, regional and global level

Target date: 31-Dec-2019

Related objectives: 1,2

Progress status On track

Progress description: All 16 countries developed TB research project. 10 of them finalised their research project and communicated orally their results or prepared/are preparing policy brief/scientific papers. Some countries already used their results to improve their practices.

Output 2: Extend the WARN-TB approach to other geographical areas and/or other disease burden

Indicator:	Report provided to SWG and stakeholders at country, regional and global level
Target date:	31-Dec-2023
Related objectives:	1,2
Progress status	On track
Progress description:	Establishment of the Central African Regional Network for TB control (CARN-TB) and duplication of the WARN-TB approach for the 11 countries of the CARN-TB

Output 3: Approaches to optimised delivery of preventive chemotherapy (PC)-based helminth control strategies evaluated

Indicator:	Report provided to SWG and stakeholders at country, regional and global level
Target date:	30-Jun-2023
Related objectives:	2
Progress status	On track
Progress description:	Contribution to NTD department managed deliberations on evidence/data analysis informing PC approaches (P. Olliaro, staff replacing him after his involuntary retirement TBD). Discussion with the WHO NTD for informing drug delivery guidance

Changes to outcomes/outputs: on track (see below)

Approach to ensure uptake: Involvement of different WHO departments and control programmes.

Capacity built at country level.

Uptake / use indicator: Evidence taken in consideration in treatment and normative guidelines

Target date: 31-Dec-2024

Indicator status: On track

Publication plan: Scientific meetings, Open access journals, TDR website

Open access publications: at drafting stage

Approach to ensure gender and geographic equity: Men and Women researchers equally represented - Activities focused initially in West Africa (see rationale) and in another country/region targeted by GTB and then expanded to cover other areas.

Section IV. Concept and approach

Rationale: Disease control is based on either case- or population-based approaches depending on the nature and the prevalence of the disease, and the efficacy/safety profile of the available medications. Country programmes need to build capacity to generate research questions and data that will allow them to effectively implement policy standards. In other cases, the evolving background epidemiology and programme objectives requires that the standard approaches be reconsidered and evidence generated to inform guidelines and policies.

Design and methodology: 1. NTPs network workshops for defining research priorities, capacity building 5 year-plan and sharing progress and issues (collaboration with relevant WHO programmes in particular WHO/GTB)

2. Activities addressing training needs with (i) a regional training programme, (ii) a "learning by doing" approach with technical support & mentoring for the development and conduct of pilot projects that generate data for the implementation and scale-up of new public health intervention

3. Support for scaling-up public health intervention and documenting their implementation through research

Approach to ensure quality: - Careful interactive development of the work-plan of the full project and risk assessment

- Careful selection of key partners

- Close monitoring of progress

Significant risk 1:	Insufficient engagement of the National Control programmes
Actions to mitigate:	Adequate communication strategy to maintain interaction of all partners within the network. Good regional dynamic in the WARN-TB & CARN-TB with a strong secretariat for both networks. A website for even more improving communication will be available early 2019.
Risk status:	On track
Significant risk 2:	Inability of some Control programmes for defining research priorities and capacity building needs
Actions to mitigate:	Shared experience and expertise within the regional network and external technical support provided for the weakest Control programmes. Experience between NTPs is shared. Countries are taking good results of neighbouring countries to implement new strategies in their own country.
Risk status:	On track
Estimated leverage description:	<p>1. TDR contribution to the submission to the Global fund of a regional project led by the National TB programme of Benin for strengthening the National reference laboratories of West and Central Africa. Successful application that will cover part of the cost of WARN-TB and CARN-TB annual meeting cost and training course on IR/OR for Laboratory staff</p> <p>2. Financial contribution of the Global Fund for organising a one-week workshop for West and Central Africa countries (27 countries) for preparing countries to conduct TB cost surveys.</p>
Estimated 2018-19 (\$\$)	\$6,100,000

ER 1.3.10 Urban health interventions for the prevention and control of vector-borne and other infectious diseases of poverty, and new vector control technologies to prevent and control emerging arboviruses

Team: Vectors, Environment and Society

Strategic working area: Research for Implementation

Workstream and outcome: Research for Innovation

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Mariam Otmani del Barrio/ Florence Fouque

TDR staff involved: Bernadette Ramirez, Flore Wagner, Madhavi Jaccard-Saghal, Abdul Masoudi

Number of partners/staff/consultants: 6

Synergy with other TDR work stream(s): Synergy with new Expected Result 1.3.13 for next biennium 2020-2021

Funding sources: undesignated funds

Partners: NTD/WHO, IAEA

Review mechanism: VES SWG and ad hoc expert reviewers

WHO Region(s): All **Country(ies):** Colombia, Brazil, France, Canada,

Diseases: Vector-borne and other infectious diseases, including emerging infectious diseases

Start date: 01-Jan-2016

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information The process of FENSA clearance for non-State actors is ongoing.

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	completed
Roles and responsibilities of each partner are complementary	Yes	completed
Coordination and decision-making are transparent	Yes	completed
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	completed

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$300,000	\$300,000	\$ 0
US\$ 50M budget	\$350,000	\$350,000	\$ 0
Expenditures and encumbrances	\$80,587	\$80,587	\$ 0
Balance	\$219,413	\$219,413	\$ 0

Section III. Objectives and results chain

Objectives: 1. Develop integrated community-based interventions for the prevention and control of (multiple) vector-borne and other diseases of poverty in urban contexts

2. Generate evidence on innovative urban health interventions that address social and environmental determinants of health and that are based on civil society engagement.

3. Develop and test new vector control tools and strategies against urban vectors of diseases.

Objectives updated:

ER outcome: • Enhanced involvement of urban communities in the prevention on dengue, Chikungunya, potentially LF and other infectious diseases through timely information on infection risk, preventive actions and pathways towards cure

- Improved understanding of the scale of urban protection needed for reducing dengue/Chikungunya transmission taking human mobilization into account.

New Vector Control tools testing guidance available, in particular for the Sterile Insect Technology.

Progress made towards outcome: On track

Output 1: Scoping reviews results translated into information briefs/policy briefs to inform practice and policy in urban health and prevention and control of infectious diseases.

Indicator: Information briefs for policy and practice developed and disseminated to decision makers.

Target date: 31-Dec-2019

Related objectives: objective 2

Progress status: On track

Progress description: A workshop is being planned to complete and finalize information/policy briefs.

Output 2: Scoping reviews about human health in urban areas and its impact of disease transmission (vector-borne and other infectious diseases of poverty)

Indicator:	Scoping reviews produced and published in a Special Issue on Urban health and Infectious Diseases in the Journal of Infectious Diseases of Poverty
Target date:	31-Dec-2018
Related objectives:	objective 1
Progress status	Completed
Progress description:	Scoping Reviews published in September 2018.

Output 3: Development of a guidance document for the new vector control tool based on Sterile Insect Technology (SIT)

Indicator:	Guidance Framework Document available
Target date:	31-Dec-2019
Related objectives:	
Progress status	On track
Progress description:	Collaboration established with International Agency of Atomic Energy (IAEA) holding the technology, concept note for the guidance document in collaboration with IAEA and NTD/WHO finalized, recruitment of the experts working group started.

Changes to outcomes/outputs: On track

Approach to ensure uptake: • Working with City health departments, local enterprises and civil society groups.

Uptake / use indicator: Number of copies printed and delivered for the Guidance Framework document on SIT

Target date: 31-Dec-2019

Indicator status: On track

Publication plan: Several publications for each of the objectives.

Open access publications: Scoping reviews produced and published in a Special Issue on Urban health and Infectious Diseases in the Journal of Infectious Diseases of Poverty

Approach to ensure gender and geographic equity: • Working with women's groups in cities, strengthening women researchers

For the Guidance Framework Document, the experts working group is composed from members with equal numbers of men and women, and origins from all WHO regions

Section IV. Concept and approach

Rationale: More than 50% of the world's population currently lives in cities with a 36% rise (or increase of 1.02 billion people in urban areas) since 2000 and an upwards trend: By 2050, around ¾ of the global population will be living in urban conglomerations, mainly in LMICs (low and middle income countries). Mobility, poverty, inequality and climate change are some of the drivers of health risks in urban settings, including infectious diseases such as dengue, influenza (avian, swine flu), tuberculosis-AIDS, urban malaria, leishmaniasis, lymphatic filariasis, rabies and, for example, water-borne diseases. Disastrous urban epidemics by dengue and chikungunya viruses with a breakdown of social services including health care delivery have been reported in recent years.

Design and methodology: A focused implementation research portfolio on vector-borne disease prevention and control in urban settings. The project will start with an eDelphi consultation in order to define the 6 research topic for each scoping review. A 3-round consultation technique will take place. By the end of the Delphi consultation, 6 top priority topics of research will be obtained and evaluated by the expert panel, which will be the 6 research questions for each review performed by the research teams comprising VERDAS consortium. A protocol for the VERDAS consortium in order to perform the 6 commissioned reviews will be developed. This protocol will allow to perform 6 reviews with the same methodology and thus ensure harmonization among the different teams.

Approach to ensure quality: In addition to oversight by an expert committee quality assurance mechanisms include fact checking, peer review of concept paper, technical and copy editing

Significant risk 1: Scoping reviews not providing sound evidence to inform policy processes

Actions to mitigate: To ensure a robust methodology for the literature reviews used by the research teams

Risk status: Completed

Significant risk 2: Guidance Framework document to test and deploy new vector control technology SIT delayed.

Actions to mitigate: Activities planned in detail, documentation made available to all experts through a share-point, workshops facilitated by IAEA/WHO experts to keep focus and follow-up of draft chapters with deadlines.

Risk status: On track

Estimated leverage description:

Estimated 2018-19 (\$\$)

ER 1.3.11 Multi-Sectoral Approach (MSA) for Prevention and Control of Malaria and Emerging Arboviral Diseases

Team: Vectors, Environment and Society

Strategic working area: Research for Implementation

Workstream and outcome: Research for Integrated Approaches

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Florence Fouque

TDR staff involved: Bernadette Ramirez, Mariam Otmani del Barrio, Masoudi Abdul, Flore Wagner, Flor Cabanel and Madhavi Jaccard-Saghal

Number of partners/staff/consultants: 7

Synergy with other TDR work stream(s): Malaria, Emerging Vector-Borne Diseases, Networking

Funding sources: Financial investment by the partners per activity:

SDC – US\$ 120,820 (US\$ 50,000 for 2 full CR, US\$ 50,120 for the workshop, US\$ 5,000 for staff cost and US\$ 15,700 programme support), fund allocated from September 2016 to June 2017.

IDRC – US\$ 62,150 (

Partners: - Swiss Development Cooperation (SDC)

- IDRC

- Swiss TPH

(Future partnership with GMP/WHO, NTD/WHO, Emergency and preparedness/WHO)

Review mechanism: A workshop was organized to present the evidence to a panel of experts and to discuss the research priorities on case studies, the stakeholder involvement, the capacity building needs and any other topic that may put the MSA into concrete actions.

WHO Region(s): All

Country(ies): The principal investigators from the commissioned review came from Yemen, Malaysia, Peru, Indonesia, Philippines and Ghana.

Diseases: Malaria and Emerging Arboviral Diseases

Start date: 01-Jan-2018

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information All partners are State-actors

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Completed
Roles and responsibilities of each partner are complementary	Yes	Completed
Coordination and decision-making are transparent	Yes	Completed
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Completed

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$1,040,000	\$100,000	\$940,000
US\$ 50M budget	\$1,360,000	\$300,000	\$1,060,000
Expenditures and encumbrances	\$2,873	\$2,873	\$ 0
Balance	\$1,037,127	\$97,127	\$940,000

Section III. Objectives and results chain

Objectives: -To define research priorities on MSA for prevention and control of VBDs.

-To support research activities on cases studies.

- To discuss objectives, eligibility and selection criteria of the selected applications.

- To raise funds for supporting the research on cases studies.

-To support the development of a guidance document on how to implement Multi-Sectorial Approaches for preventing and controlling VBDs.

Objectives updated:

ER outcome: Improved Prevention and Control of Malaria and Emerging Arboviral Diseases through Multi-Sectoral Approach (MSA)

Progress made towards outcome: The workshop was held and the report is available.

The commissioned reviews have been completed, and publications are on track.

The development of the guidance document will start in January 2019.

Output 1: MSA for prevention and control of VBDs implemented in several LMIC for several diseases.

Indicator: Number of countries having access to MSA recommendations produced through this project.

Target date: 31-Dec-2019

Related objectives: MSA can be linked to many of the on-going VES project through the holistic approach of prevention and control of VBDs.

Progress status On track

Progress description:

Output 2: Knowledge and evidences for MSA generated.

Indicator:	Publications available for knowledge generated and supported case studies.
Target date:	31-Dec-2019
Related objectives:	MSA can be linked to many of the on-going VES project through the holistic approach of prevention and control of VBDs.
Progress status	On track
Progress description:	Each of the 6 commissioned review has produced and submitted at least one publication (2 already published and accepted).

A special issue will be published in 2019.

Output 3: Improved prevention and control of diseases, through MSA and larger involvement of Stakeholder in this new approach.

Indicator:	Number of diseases where MSA has allowed some decrease in VBDs incidence. Population better protected from VBDs through MSA.
Target date:	31-Dec-2019
Related objectives:	MSA can be linked to many of the on-going VES project through the holistic approach of prevention and control of VBDs.
Progress status	On track
Progress description:	

Output 4: Guidance Document on MSA for prevention and control of VBDs.

Indicator:	Publication of the Guidance Document
Target date:	30-Jun-2019
Related objectives:	
Progress status	On track
Progress description:	Selection of the consultant done.

Changes to outcomes/outputs: The workshop was held and the report is available.

The commissioned reviews have been completed, and publications are on track.

The development of the guidance document will start in January 2019.

Approach to ensure uptake: Collaboration will be ensured at different levels, with partners from development agencies, UN organizations such as TDR, and other countries, that are willing to push forward an agenda for the control of VDBs, in the context of the

Uptake / use indicator: Number of countries starting and/or implementing Multi-Sectorial Approaches.

Target date: 31-Dec-2019

Indicator status: On track

Publication plan: Publications from commissioned review.

Publication of a special issue in a peer-review journal.

Publication of a guidance document.

Open access publications: All published material will be open access.

Approach to ensure gender and geographic equity: All call for proposals for the research activities will follow gender-sensitive approaches with all research activities having an explicit gender perspective/framework, including in the composition of the research teams.

Section IV. Concept and approach

Rationale: Malaria and emerging arboviral diseases are the result and a cause of a lack of development. The burden of the diseases is highest in the most vulnerable populations, also suffering from the lowest development. The Multisectoral Action Framework for Malaria (MAFM) proposed by SDC and STPH adds this development dimension, by making actions outside the health sector essential components of prevention and control of vector-Borne Diseases (VBDs). “The Framework calls for action at several levels and in multiple sectors, globally and across inter- and intra-national boundaries, and by different organizations. It emphasizes complementarity, effectiveness and sustainability. It involves new interventions as well as putting new life into those that already exist, and coordinates and manages these in new and innovative ways.”

After being launched early in 2016, this MAFM wants to expand to other VBDs, through collaboration at different levels, with partners from development agencies, UN organizations such as TDR, and other countries, that are willing to push forward an agenda for the control of VBDs, in the context of the Sustainable Development Goals (SDGs). Preliminary discussions were held between potential partners in September and October 2016 to define the goals and the space of a MSA for VBDs. The discussions also addressed the challenges of raising funds to achieve the different steps of the future action plan.

At this stage, SDC and STPH presented the first activities in the MAFM, which include the set-up of a working group to advocate for the MSA. STPH is the focal point for this activity and this working group (MAFMWG) will be launched officially in early 2017. SDC recently supported a course on MSA for Health at the Lugano Summer School in August 2016. The IDRC group presented its long history and activities on Eco-health but recently the agency has been through organization changes and will continue to support VBDs control activities, within the new framework entitled “Food, Environment and health”. IDRC is now concentrating more on how to translate the evidences and understanding into concrete actions. TDR is also in the process of defining its new strategy for 2018-2023 and the holistic approaches to VBDs control, including the MSA is well in the agenda.

- Previous work done by TDR in the area:
- Impact of Climate change
- Scaling up of tools for dengue and Chagas control
- Impact of insecticide resistance on malaria, and other related projects.

Design and methodology: Vector-borne diseases including malaria and emerging arboviral diseases account of about one quarter of all infectious diseases. Although there has been strong progress for malaria, with a recent decrease in malaria morbidity and mortality rates, other diseases such as those caused by arboviruses such as dengue, chikungunya, yellow fever and more recently Zika, are expanding, with increased number of cases and fatalities. It has become evident that the prevention and control of these diseases have to include more than a single orientated approach, since the transmissions patterns are driven by vector-host-pathogens relationships where natural conditions, human societies and vector parameters are dynamically interacting.

In this context, a discussion on Multi-Sectoral Approach (MSA) for prevention and control of malaria and emerging arboviral diseases has started between the Swiss Development Cooperation (SDC), the Canadian International Development and Research Cooperation (IDRC) agency, the Swiss Tropical Institute for Health (STPH) and the VES Unit of TDR, to build a multi-disciplinary approach. A Concept note was issued by the Swiss TPH and the SDC, in February 2016, entitled: “Leveraging the Sustainable development Goals to intensify transdisciplinary & multisectoral collaboration in the global malaria response”, to draft the context of this approach, as well as the conceptual framework, along with some thematic areas of potential interest and proposals for the way forward.

Two meeting were held with the 4 partners and a plan of action was drafted. The first part of the consensus plan is to set up the landscape of the MSA approaches through commissioned reviews that will be presented and discussed at a workshop. The second part of the plan is still under discussion and will have as objectives the support

of research activities on case studies implementing MSA approaches for several chosen diseases and contexts. The partners have agreed that VES/TDR would be an ideal platform for implementing the plan.

Approach to ensure quality: It will be ensured that the project aligns well with the current and draft 2018-23 TDR strategy promoting research for integrated approaches, because disease transmission is determined by complex interactions between people and their environment. Since the patterns can be dramatically different in rural and urban areas, and from country to country, we support a holistic and multi-sectoral approach which will be also supported by collaboration from various stakeholders.

A final review of the alignment of the project within the TDR strategy will be made when the new TDR strategy has been approved in 2017 to ensure the content and quality are as envisaged

Significant risk 1: Potential delay at start up for selecting the research teams for the case studies through open call for applications

Actions to mitigate: Adequate implementation plan with timely issuance of call for applications

Risk status: Completed

Significant risk 2: Delay in the publication plan

Actions to mitigate: Follow up on publications with the investigators

Risk status: On track

Estimated leverage description:

Estimated 2018-19 (\$\$)

ER 1.3.12 Strategies to promote gender-responsive health interventions on prevention and control of VBDs and other infectious diseases of poverty

Team: Vectors, Environment and Society

Strategic working area: Research for Implementation

Workstream and outcome: Gender Equity

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Mariam OTMANI DEL BARRIO

TDR staff involved: Bernadette Ramirez, Florence FOUQUE

Number of partners/staff/consultants: tbd

Synergy with other TDR work stream(s): TDR implementation research

Funding sources: UD and DF

Partners: • Research teams in countries

- WHO and other entities working on gender and public health (e.g., WHO-GER, WHO-HRP; WHO Alliance for Health Systems Research)
- Health programmes interested in and using research evidence

Review mechanism: VES-SWG plus ad hoc Review Group(s) dealing with specific calls

WHO Region(s): Global

Country(ies): African countries included in the first phase of the current gender project, including Southern Africa, East and Western Africa countries.

Diseases: VBDs

Start date: 01-Jan-2018

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	Yes	
Coordination and decision-making are transparent	Yes	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$300,000	\$100,000	\$200,000
US\$ 50M budget	\$550,000	\$250,000	\$300,000
Expenditures and encumbrances	\$ 0	\$ 0	\$ 0
Balance	\$300,000	\$100,000	\$200,000

Section III. Objectives and results chain

Objectives: To strengthen research capacities and provide innovative tools to generate evidence that informs the design and implementation of gender responsive health interventions to control and prevention of VBDs and other infectious diseases of poverty.

Objectives updated:

ER outcome: Strengthened capacities and provided innovative tools to promote gender responsive health interventions on control and prevention of VBDs

Progress made towards outcome:

Output 1: Strengthened research capacities in intersectional gender analysis within research on infectious diseases

Indicator:	Production of a research guidance/toolkit to build research capacities in conducting intersectional gender analysis in infectious disease research.
Target date:	31-Oct-2019
Related objectives:	
Progress status	On track
Progress description:	First draft of the toolkit produced and being revised following feedback from TDR Expert Group Meeting on Gender and Intersectionality.

Output 2: Facilitated technical exchange through a planned expert group meeting on intersectional gender approaches to research on IDPs, to consolidate thinking around TDR's work on gender and infectious diseases of poverty, discuss research needs and inform the ne

Indicator:	TDR Expert Group meeting report and recommendations to inform TDR strategic plans on gender and intersectionality in research on infectious diseases.
Target date:	31-Mar-2019
Related objectives:	
Progress status	Completed

Progress description: TDR Expert group meeting took place on 20-21 November 2018. It will inform and strengthen the design of the strategic path for TDR's intersectional gender approach in research (research needs, priorities and projects). The meeting was planned twofold over 2 days: A first day, where the draft of a TDR research guidance document/toolkit was presented for expert input and feedback. During the second day, various experts presented and discussed key aspects associated with gender equality approaches and research on infectious diseases which was an opportunity to critically analyse key aspects that the future TDR strategy in this area should cover.

Output 3: Developed a TDR Strategy/Strategic Plan on gender and intersectionality on infectious diseases of poverty

Indicator: TDR Strategy/Strategic Plan on Gender and Intersectionality

Target date: 31-Dec-2019

Related objectives:

Progress status On track

Progress description: Recommendations of the Expert Group meeting are being finalized and will be shared within TDR and inform internal discussions in order to come up with the strategic plan in 2019.

Output 4: Opened a call for research proposals to generate evidence new knowledge and evidence on the intersection of sex and gender with other social stratifiers to address power relations, social exclusion, marginalization and disadvantage in access to health services.

Indicator: Publication of research call

Target date: 31-Oct-2019

Related objectives:

Progress status On track

Progress description: The call will be launched in the second half of 2019

Changes to outcomes/outputs:

Approach to ensure uptake: Engagement with senior management at universities, research teams with teams that involve at least 50% of women in their teams, engagement with various ministries and public health services

Uptake / use indicator: Engagement with ministry officials including MoH, MoFA and MoEd

Target date:

Indicator status: On track

Publication plan: Peer review publication of Toolkit to conduct intersectional gender

Open access publications:

Approach to ensure gender and geographic equity: Gender parity will be ensured when establishing external review panels, convening meeting of experts, issuing contracts, and in general within all our collaborations.

Section IV. Concept and approach

Rationale: Great progresses have been taken towards combatting infectious diseases of poverty (IDPs). However, considerable public health challenges remain, including gender and intersecting inequalities that affect health conditions associated with infectious diseases. ER 1.3.12 is focused on gender intersecting inequalities that influence differentials in vulnerability to, and the impact of, particular health conditions associated with infectious diseases in low and middle-income countries.

This expected result recognizes that gender norms, roles and relations influence people's susceptibility to different health conditions and they also have a bearing on people's access to and uptake of health services, and on the health outcomes they experience throughout the life-course. It also acknowledges that WHO has recently recognized that it is important to be sensitive to different identities that do not necessarily fit into binary male or

female sex categories. In this context, delivery and access to prevention and control approaches and products to prevent and control infectious diseases should not be one-size-fits all but instead should benefit from approaches that take into account the complex interaction of several social stratifiers, and their influence in health outcomes. There is growing recognition that gender roles, gender identity, gender relations, apart from institutionalized gender inequality influence the way in which an implementation strategy works (e.g. for whom, how and why). There is also emerging evidence that programmes may operate differently within and across sexes, gender identities and other intersectional characteristics under different circumstances and contexts. Research should inform implementation strategies to avoid ignoring gender-related dynamics that influence if and how an implementation strategy works.

Therefore scientists, including those focusing on implementation research, would benefit from adequately considering sex and gender intersecting social dimensions within their research programmes, by strengthening both the practice and science of implementation, and by contributing to improved health outcomes and reduction of gender and health inequalities.

Design and methodology: 1. Development and pilot of a toolkit on intersectional gender analysis in research on Infectious Diseases of Poverty.

2. Methodologies and gender analysis frameworks will be detailed and explained within the above mentioned toolkit and presented in practical "hands-on" toolkit for researchers to incorporate a gender analysis with an intersectional lens, throughout the whole research process, from research study design up to dissemination of research findings stage.

Approach to ensure quality: Oversight by expert committee and quality assurance through fact checking, peer review of documentation, technical and copy editing

Significant risk 1: Knowledge translation outcomes on gender equality are usually beyond the control or influence of projects.

Actions to mitigate: For this programme stakeholders, including from the affected communities, research teams and policy/decision-makers, will be engaged from the very beginning and during the course and completion of the projects to ensure their active involvement with the expectation that the results will be utilized as effectively as possible

Risk status: On track

Estimated leverage description: Leverage is expected through funding support from WHO partners working on gender equality and environmental health.

Estimated 2018-19 (\$\$) \$300,000

ER 1.3.3 Population health vulnerabilities to VBDs: increasing resilience under climate change conditions in Africa

Team: Vectors, Environment and Society

Strategic working area: Research for Implementation

Workstream and outcome: Environmental Changes Impact

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Dr Bernadette Ramirez

TDR staff involved: Mariam Otmani Del Barrio, Ms Madhavi Jaccard-Sahgal (until June 2019)

Number of partners/staff/consultants: % support for VES Staff; Support for staff salary in WHO-AFRO PHE and HQ-PHE

Synergy with other TDR work stream(s): with Research Capacity Strengthening - This ER aims to build capacity for interdisciplinary policy-oriented research, cross-collaboration and research networking while addressing vulnerabilities to climate change and VBDs in Africa; Partnership and Engage

Funding sources: Designated funds from International Development Research Centre (IDRC), Canada; Undesignated funding (45M scenario) - USD 300,000 - 2018/2019

Partners: International Development Research Centre (IDRC) Canada, WHO PHE (Department of Public Health and Environment), WHO AFRO PHE (Protection of the Human Environment) and the IRI (International Research Institute for Climate and Society)

Review mechanism: The Special Project Team (SPT) will provide the technical advisory function as follows: a) for overall scientific and technical review and oversight, b) for drafting and issuing the international call for letters of intent, c) for peer-review and recommendation.

WHO Region(s): AFRO **Country(ies):** Team A - Botswana, South Africa and Zimbabwe; Team B - Kenya; Team C - Tanzania; Team D - South Africa, Zimbabwe and Tanzania; Team E - Côte d'Ivoire and Mauritania

Diseases: Team A - malaria and schistosomiasis; Team B - malaria and Rift Valley fever; Team C - malaria and human African trypanosomiasis; Team D - human African trypanosomiasis; Team E - malaria and schistosomiasis

Start date: 01-Jul-2012

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	No	
Coordination and decision-making are transparent	No	
Visibility of TDR and all partners/collaborators is highlighted in all documents	No	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$300,000	\$300,000	
US\$ 50M budget	\$450,000	\$450,000	
Expenditures and encumbrances	\$ 533	\$ 533	\$ 0
Balance	\$299,467	\$299,467	\$ 0

Section III. Objectives and results chain

Objectives: General objective: To build on the accomplishments of the TDR IDRC Research Initiative (vector borne diseases and climate change) through knowledge sharing and evidence for scalable community based adaptation strategies

Objectives updated:

ER outcome: Scaling up of the use of tools and approaches for community-based adaptation

Progress made towards outcome: (new project/s will be implemented in 2019)

Output 1: Upscaling or vertical scale up from the community level to use lessons learned from local change processes to inform decision-making at higher administrative and organizational levels for wider-reaching impact; knowledge translation

Indicator: Research reports and number of publications, scientific syntheses and research summaries; multisectoral engagement among stakeholders and shareholders (including communities)

Target date: 31-Dec-2019

Related objectives:

Progress status On hold

Progress description: (new project/s will be implemented in 2019)

Output 2: Horizontal scale up (a.k.a. scaling-out), i.e., community based adaptation expanded over a larger geographical area to replicate community participatory initiatives based on the initial intervention

Indicator: Evidence documented from surveys/research reports of increased capacity built about integrated methods for research-to-policy applications and knowledge translation; innovative participatory approaches to climate change adaptation scenarios, sustainability, etc.

Target date: 31-Dec-2019

Related objectives:

Progress status On hold

Progress description: (new project/s will be implemented in 2019)

Output 3: Capacity building for the development of new models to better address social issues around adaptation

Indicator: Number of transdisciplinary communities of practice established, networking, sharing and exchanging knowledge/experiences in support of the development and use of public health decision-support systems for improved management of social, environmental and

Target date: 31-Dec-2019

Related objectives:

Progress status On hold

Progress description: (new project/s will be implemented in 2019)

Changes to outcomes/outputs: (new project/s will be implemented in 2019)

Approach to ensure uptake: TDR and collaborating research institutions, will conduct networking and policy-advice activities to promote the products generated from the research programme: a) Translation and dissemination of the scientific knowledge, evidence and adaptation tools an

Uptake / use indicator: 1. Increased national, regional and international attention triggered through research results; 2. Use of tools by African countries for increased resilience to VBDs risks under climate change conditions; 3. Number and significance of events

Target date: 31-Dec-2019

Indicator status: On hold

Publication plan: At least three publications expected from projects supported by TDR

Open access publications:

Approach to ensure gender and geographic equity: All proposals follow gender-sensitive approaches with all research activities having an explicit gender perspective/framework and taking into account possible gender differentials in the epidemiology and transmission of VBDs and will, if possible and appropriate, define gender-sensitive approaches to the community-based adaptation strategies to reduce population health vulnerabilities. This perspective is further stressed in the call for proposals and during proposed training and workshops where the participation of women researchers is actively encouraged. Best approaches to engage women in programmes and activities aimed at climate change adaptation for health and reduced risk for VBDs will also be addressed.

Section IV. Concept and approach

Rationale: • Builds on the accomplishments of the TDR-IDRC Research Initiative (vector borne diseases and climate change)

- Sharing knowledge and evidence for scalable community based adaptation experiences
- Introduces sustainable development practices that make communities more resilient both to immediate climate variability and long-term climate change
- Good documentation of scalable practices and integrating them into sectoral policies through case studies research

Design and methodology: - Upscaling or vertical scale-up from the local community level to use lessons learned from local change processes to inform decision-making at higher administrative and organizational levels for wider-reaching impact

- Horizontal scale-up (a.k.a. scaling-out), i.e., community based adaptation can be expanded over a larger geographical area, wherein the expansion could involve a larger number of new but replicated community-participatory initiatives based on the initial intervention

- Opportunity for research/training on developing new services and models to better address social issues around adaptation

Approach to ensure quality: TDR VES will collaborate with the International Research Institute (IRI) on Climate and Society at Columbia University, New York, USA. In addition, the WHO Department of Public Health and Environment (PHE) and the WHO Regional Office for Africa (AFRO) through the Department of Protection of Human Environment (PHE) will have major technical as well as advisory and oversight roles in the implementation of the programme by ensuring that project outcomes feed into national climate change and health policy processes. In addition to financial support, IDRC is also contributing technical and financial advice. TDR staff in the VES team will act as project managers to manage and coordinate the implementation of the programme in close collaboration with IDRC. VES will also work closely with the Programme and Portfolio Management unit of TDR.

Significant risk 1: Health researchers and other stakeholders may find it difficult to work under transdisciplinary circumstances (e.g. climate, agriculture, etc).

Actions to mitigate: The cross sectoral approach will be promoted from the outset as an essential aspect required of the proposals and throughout the projects.

Risk status:

Significant risk 2: Knowledge translation outcomes are usually not under the control or influence of projects.

Actions to mitigate: For this research programme, stakeholders, including from the affected communities and policy/decision-makers, will be engaged from the very beginning at the inception and during the course and completion of the research projects to ensure their active involvement in conducting and reporting on the research on the research with the expectation that the results will be utilized as effectively as possible. It is anticipated that the periodic review of successes and failures of the projects and of the implementation of the research programme will allow timely remediation to potential problems that might occur during the course of the implementation of the projects.

Risk status:

Estimated leverage description: Leverage is expected through voluntarily participation of experts and partners in programme implementation (particularly in technical implementation and training. Leverage is also expected through funding support to follow-up activities after the end of the project. Additional leverage is expected through technical/ funding support from other partners at WHO (HQ/PHE and AFRO/PHE)

Estimated 2018-19 (\$\$) \$500,000

ER 1.3.5 Advancing social innovation in health care delivery through research, capacity strengthening and advocacy

Team: Director's office - Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Beatrice Halpaap

TDR staff involved: Flor Cabanel, Elisabetta Dessi, Pascal Launois, Mary Maier, Corinne Merle, Bernadette Ramirez, Priyanka Shresta and staff across TDR as relevant

Number of partners/staff/consultants: 9.7 FTE in low and middle-income countries

Synergy with other TDR work stream(s): All (cross TDR)

Funding sources: Undesignated funds and soft designated funds

Partners: In 2014 TDR has launched the Social Innovation in Initiative (SIHI), in collaboration with the Bertha Centre for Social Innovation and Entrepreneurship at the University of Cape Town, the Skoll Centre for Social Entrepreneurship at Oxford University, and t

Review mechanism: Ad hoc expert reviewer group and Scientific Working Group

WHO Region(s): Global **Country(ies):** Colombia, Malawi, Philippines, Republic of China, South Africa, Uganda

Diseases: Not disease specific, people centred approach

Start date: 01-Jan-2014

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	Yes	
Coordination and decision-making are transparent	Yes	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$1,000,000	\$1,000,000	
US\$ 50M budget	\$1,200,000	\$1,200,000	
Expenditures and encumbrances	\$497,083	\$497,083	\$ 0
Balance	\$502,917	\$502,917	\$ 0

Section III. Objectives and results chain

Objectives: 1- PROMOTE AND SUPPORT RESEARCH FOR SOCIAL INNOVATION: Conduct research for community-engaged social innovation models and develop tools/ mechanisms to embed research in the process.

2- STRENGTHEN COUNTRY CAPACITY: Partner with research institutions in low and middle income countries to advance social innovation and research capacity.

3- CONVENE AND CATALYZE CULTURE CHANGE: Share best-practice learning and engage strategic influencers to further the adoption and scale of social innovation.

Objectives updated: To unlock the capacity of all health system actors to advance community-based Social Innovation, through global collaborative research, practice and influence:

- Research: conduct support and disseminate research on key social innovation priority areas

ER outcome: The application and usefulness of social innovation in health care delivery demonstrated, disseminated and scaled up through research hubs in low and middle income countries.

Progress made towards outcome: This year two new calls for social innovations have been launched by the SIHI research hubs in Latin and Central America and in Malawi making a total of six calls globally since SIHI was established, with 249 eligible innovations identified in 17 countries, 40 case studies and 35 short films. These will be essential to promote the value of social innovation and share the lessons learnt.

Education programmes have been developed by the research hubs and embedded in the institutions programme for ongoing training. A social innovation module was tested at the University of the Philippines, Manila, and a face-to-face skill building short course on Community Based Participatory Research for Health at CIDEIM, the TDR supported regional training centre for health research.

New partners have been engaged setting the path for institutionalizing social innovations in respective organizations and in national health and health research systems. For example, the Philippine National Health Research System launched the Gelia Castillo Award for Social Innovation in Health in partnership with SIHI Philippines and the Philippines department of Health. The award recognises research and novel social innovations in response to the country's priority health needs.

Output 1: At least 3 social innovation research hubs in low and middle income countries established and functioning.

Indicator:	- research hubs have institutionalized social innovation as a multidisciplinary approach in their organization to enhance health care delivery research (promotion, convening, research, research capacity, knowledge management)
Target date:	31-Dec-2019
Related objectives:	all
Progress status	On track
Progress description:	All SIHI country hubs in Colombia, Malawi, Philippines, and Uganda have made great progress in (i) promoting the value of social innovation through case studies, (ii) in engaging with social innovators, government, research across the universities to embed social innovation in their respective institutions and in the national health systems.

Output 2: Global Social Innovation in Health Network maintained

Indicator:	Promotion of social innovation in health sustained and knowledge shared through knowledge platform, regular convenings, and eNews.
Target date:	31-Dec-2019
Related objectives:	all
Progress status	On track
Progress description:	In 2018 SIHI has expanded its network to new institutions: SESH, the Social Entrepreneurship to Spur health, China; the United Nation University Global Health Institute, Indonesia, UNAIDS, WHO AFRO, Ahimsa Fund and the Fondation Mérieux. A network meeting took place in Malawi in May 2018 and various meetings were organized during the years at specific partners meeting to help embed social innovation in existing programmes. The Bertha Centre for social innovation at the university of Cape Town and the LSHTM in London continue to provide support to the country hubs and to advance social innovation in health. As the network expand discussions on how best share and learn from each other started to take place.

Changes to outcomes/outputs: This year two new calls for social innovations have been launched by the SIHI research hubs in Latin and Central America and in Malawi making a total of six calls globally since SIHI was established, with 249 eligible innovations identified in 17 countries, 40 case studies and 35 short films. These will be essential to promote the value of social innovation and share the lessons learnt.

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New partners have been engaged setting the path for institutionalizing social innovations in respective organizations and in national health and health research systems. For example, the Philippine National Health Research System launched the Gelia Castillo Award for Social Innovation in Health in partnership with SIHI Philippines and the Philippines department of Health. The award recognises research and novel social innovations in response to the country's priority health needs.

Approach to ensure uptake: Advocacy for social innovation in health at global and national levels.

Engagement of low and middle income countries stakeholders in leading the Social Innovation in Health Initiative.

Uptake / use indicator: Advocacy for social innovation in health further conducted by global health and national stakeholders.

Primary social innovation research hubs have engaged new collaborators in their countries and the Region.

Target date: 31-Dec-2019

Indicator status: On track

Publication plan: - Peer review publication on approach and lessons learnt to engage research institutions in low and middle countries and support them to become an active hub.

Open access publications: A Special Issue of the Journal of Infectious Diseases is being written and is expected to be published in 2019.

Approach to ensure gender and geographic equity: Social innovations provide solutions to enhance health care delivery and reach vulnerable populations.

The Social Innovation in Health Initiative (SIHI) focuses on the needs of countries in the Global South and in their leadership in enhancing social innovation in health. We have initially identified only one institution in low and middle income countries engaged in the promotion of and research on social innovation and social entrepreneurship in health. One of the main focus of this expected result is to build upon the strength of this institution and engage new institutions in the Global South through collaboration and skills development.

SIHI contributes to the implementation of the WHO framework for people-centred integrated health services and of the WHO community engagement framework, which are critical elements to reach universal health coverage and leave no one behind.

Gender equity has been especially looked at when establishing external review panel, convening experts, issuing contracts, and in general within our collaborations. The next step is to explore the development of research grant schemes to enhance social innovation in health care delivery specifically (i) for women and child health and (ii) led by women

Section IV. Concept and approach

Rationale: WHY SOCIAL INNOVATION

Over the past decades great advances have been achieved by innovation in drugs, devices and vaccines but we have neglected to innovate in the delivery process. Well-intended policies and interventions have not achieved their desired outcomes due to not involving communities in creation and implementation. The Sustainable Development Goals are calling for a new healthcare paradigm, inclusive of social, environmental and economic factors responsible for illness and disease.

Social innovation contributes to Universal Health Coverage and the Sustainable development Goals:

- Social innovation uses a people-centred perspective. It is based on valuing communities and individuals living across the global south as competent interpreters of their lives and essential contributors in solving the challenges to access quality health services.
- The social innovation approach extends beyond silos, sectors and disciplines to inclusively integrate all actors around the needs of communities.
- Social innovation results in the implementation of new solutions that enable greater equity, affordability and sustainability of healthcare services for all.

This is a great opportunity for TDR to build upon a long history of research on community based intervention to explore ways to sustain these.

Design and methodology: An initial phase (2014-2015) aimed at (i) establishing a partnership, (ii) providing evidence of the value of social innovation in health through a series of case studies, (iii) building a community for social innovation in health, convening the various actors to design research and capacity strengthening agenda.

A second phase (2016-2017) called for global collaboration where to integrate healthcare delivery interventions and the social innovation approach in health systems policy and practice. We achieve this through three focus areas:

RESEARCH: Conduct, support and disseminate research on key social innovation priority areas.

PRACTICE: Develop, test and transfer an innovation lab model for systems capacity strengthening.

INFLUENCE: Engage a global-south community of people and partners interested and passionate about social innovation in health.

It is expected that the third phase (2018-2019) will lead to social innovation research hubs in low and middle income countries.

Approach to ensure quality: In addition to oversight by expert committee quality assurance mechanisms include fact checking, peer review of concept paper, technical and copy editing

Significant risk 1: Sustainability of efforts and collaborations established is a key challenge.

Actions to mitigate: Support interested research institutions in low and middle income countries to (i) become hubs, institutionalize research for social innovation in their organization and transfer and disseminate capacity to others and to (ii) fundraise for further activities.

Risk status: On track

Estimated leverage description: SIHI various partners and stakeholders contribute directly to promote and advance social innovation in health care delivery. TDR funding greatly leverage resources from (i) established academic centres whose regular activities focus on social innovation (Bertha Centre, Skoll centre, research hubs in low and middle income countries - time, infrastructure, events, grant schemes), (ii) new interested partners who dedicated time to work with us (not funded) (e.g. LSHTM, Fondation Mérieux, Ahimsa), (iii) experts (convenings, review panels).

Estimated 2018-19 (\$\$)

ER 1.3.6 Evaluation and improvement of malaria control policies through study of the impact of insecticide resistance on LLINs and IRS efficacy, and preliminary analysis of the burden and causes of residual malaria.

Team: Vectors, Environment and Society

Strategic working area: Research for Implementation

Workstream and outcome: Emerging Challenges

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Florence Fouque

TDR staff involved: Bernadette Ramirez, Abdul Ghafar Masoudi

Number of partners/staff/consultants: 3

Synergy with other TDR work stream(s): The research is in line with TDR strategy and fully aligned with the mandate and thrust of Vectors, Environment and Society (VES) unit. Through improved insecticide resistance management, locally optimized vector control strategies and reduced transmission.

Funding sources: TDR Undesignated funds

Partners: WHO-AFRO/PHE, WHO/HTM/GMP/VCP, WHO/HTM/NTD/VEM, - National malaria control programmes in Africa

Review mechanism: Scientific Advisory Groups composed of external and internal reviewers, to review the proposals and progress reports and advise about strategic directions

WHO Region(s): AFRO, PAHO, SEARO and WPRO

Country(ies): Mali, Benin, Nigeria, Tanzania, Burkina

Faso, Kenya, Ethiopia, Cameroon, Peru, Brazil, Thailand, Vietnam, Papua New Guinea

Diseases: Malaria

Start date: 01-Oct-2013

End date: 31-Dec-2018

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information For the non-State actor partners, the FENSA clearance process has been started and is on-going

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Completed
Roles and responsibilities of each partner are complementary	Yes	Completed
Coordination and decision-making are transparent	Yes	Completed
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Completed

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$200,000	\$200,000	\$ 0
US\$ 50M budget	\$500,000	\$300,000	\$200,000
Expenditures and encumbrances	\$41,439	\$41,439	\$ 0
Balance	\$158,561	\$158,561	\$ 0

Section III. Objectives and results chain

Objectives: Objective 1. Assess with the existing proven tools (including molecular markers) the mechanisms of vector resistance to the insecticides used in malaria control programmes in Africa.

Objective 2. Establish the link between resistance and control failure (including the contributions of the different resistance mechanisms)

Objectives updated:

ER outcome: Countries using optimized implementation of vector control interventions based on scientific evidence

Progress made towards outcome: Policies information briefs developed and stakeholders informed.

Output 1: New scientific information on insecticide resistance mechanisms generated to fill critical knowledge gap

Indicator:	Insecticide resistance mechanisms characterized for the insecticides used for indoor residual spraying (IRS) of insecticides and Insecticide-treated nets (ITNs) in the main malaria vectors and in six African countries among those in which resistance has b
Target date:	15-Mar-2018
Related objectives:	Objective 1: Assess with the existing proven tools (including molecular markers) the mechanisms of vector resistance to the insecticides used in malaria control programmes in Africa
Progress status	Completed
Progress description:	In Mali, <i>An. coluzzii</i> was the main <i>Anopheles</i> species constituting 95.5% of the <i>Anopheles</i> population in the different villages. Resistance to commonly used insecticides (pyrethroid) was very high in all sites, but mosquito population was fully susceptible to pyrimiphos-methyl (organophosphate) used for IRS.

In Nigeria with LLINs as the main vector control intervention, multivariate analysis found insecticide resistance as a main factor associated with non-usage or halt in LLINs usage.

In Benin Mosquitoes (*An. gambiae* and *An. funestus*) from most surveyed sites were found resistant to pyrethroid insecticides with higher resistance recorded in the south. In the selected study sites, multi-resistance mechanisms (target sites and metabolic resistance) were recorded and it was observed that more severe malaria cases were recorded in the locality with higher resistance level.

Output 2: Link between insecticide resistance mechanisms and malaria control failure established

Indicator: Impact of resistance mechanisms on control failure established (e.g. significant increase in vector entomological inoculation rates and parasite and disease incidence) in six African countries among those in which control activities are on-going.

Target date: 05-Feb-2018

Related objectives: Objective 2: Establish the link between resistance and control failure (including the contributions of the different resistance mechanisms)

Progress status Completed

Progress description: In Mali, Entomological transmission and parasitological parameters were all low in LLINs+IRS sites compared to LLINs-Only sites except. Consequently, malaria control with LLINs+IRS was found much more efficient than LLINs alone, despite some insecticide resistance.

In Nigeria, The data suggest that only metabolic P450 mechanism of resistance appears to impair LLINs efficacy and performance in term of Anopheles monthly biting rates, parasites inoculation rates and malaria prevalence.

In Benin, The main conclusion was that the insecticide resistance developed by malaria vector is one of the main factor affecting the efficacy of LLINs in communities.

Output 3: Produce Better Knowledge of burden and causes of residual malaria

Indicator: Project B: Residual malaria hotspots in Peru and Brazil: setting the stage for testing improved

Project C: Residual Malaria Transmission (RMT) in the Greater Mekong Subregion (GMS) - Studies to examine its magnitude and identify its causes (Thailand and

Target date: 31-Dec-2018

Related objectives:

Progress status Completed

Progress description: For the residual malaria projects, it is clear from some projects that the vector control tools are not implemented well, consequently, the on-going malaria transmission is not residual, but more an implementation problem.

In other situations (Peru, Brazil, Thailand), the current tools are not efficient because of human or mosquito behaviour, and thus malaria transmission is not residual according to the current definition.

In situation where malaria can be considered residual, such as in Vietnam, because of the very good coverage of LLINs, the persistence of malaria transmission has moved from villages to farm plots and forests, with secondary vectors. In such places, the deployment of LLINs needs new approaches, but other vector control tools are also needed.

In the African countries the persistence of malaria transmission is due a combination of factors with local specificity. In Burkina Faso, the insecticide resistance of the vectors, as well as the human behaviour are favourable to the malaria transmission, but this malaria transmission cannot be considered residual since there is an evident lack of efficacy of the recommended vector control tools. In Tanzania, insecticide resistance and human behaviour are also part of the problem, but another mosquito vector is emerging (*An. funestus*), consequently this transmission is partly not residual due to lack of efficacy of the tools, and partly residual due to a new vector species. In Cameroon, malaria

transmission persists with good implementation of the recommended tools through a high diversity of vector species exhibiting different biting behaviours. In Kenya, insecticide resistance was found as one of the important factor driving persistent malaria transmission.

For all projects, a very strong research component was the study of human behaviour, including sleeping times, net use, activities, and also age and gender differences. These specificities should help in developing integrated malaria control approaches adapted to the local context.

Output 4: Organize an International Workshop to present and discuss the results of the research projects on residual malaria

Indicator: Workshop organized

Target date: 01-Jan-2018

Related objectives:

Progress status Completed

Progress description: An international workshop was supported and hosted by the Ifakara Health Institute in November 2017 in Dar-es-Salam Tanzania to present the overall results and make recommendations for policies and research activities. The workshop was attended by more than 40 participants from all WHO regions and the main key-messages were:

- The workshop discussions revealed a lack of agreement around the definition of residual malaria transmission.
- There are many similarities and differences seen in approaches to measuring and characterizing residual transmission. All studies included a vector and human component, however few presented the results in an integrated way. Approaches and methods to link human and vector aspects should be evaluated and standardized.
- There are factors beyond residual transmission, including the quality of implementation of vector control tools (i.e. sub-optimal access and/or use of LLINs), which also need to be addressed in some contexts.
- Strong community engagement is essential for successful research and interventions.
- There is a clear and urgent need for context-specific strategies and interventions for addressing residual malaria transmission.
- The workshop played an important role in laying the groundwork for additional research and interventions. Ongoing coordination, and opportunities for collaboration, across research groups will be essential.

Changes to outcomes/outputs: Policies information briefs developed and stakeholders informed.

Approach to ensure uptake: The research will be conducted within the ongoing malaria control programmes in collaboration with the National Malaria Control Programmes and the donor agencies

Uptake / use indicator: Indicator 1. Insecticide resistance mechanisms better understood for the insecticides used for IRS and ITNs in the main malaria vectors and in six African countries among those in which resistance patterns have been detected.

Indicator 2. Knowledge generated

Target date: 30-Jun-2019

Indicator status: On track

Publication plan: At least two publications by the investigators (1 on resistance mechanisms and 1 on impact of resistance mechanisms on control failure) in peer-reviewed journals.

Special Issue in a peer-review journal to include at least one publication of each project

Open access publications: On track

Approach to ensure gender and geographic equity: The research project was selected following an open competitive call for applications targeting malaria endemic countries in sub-Saharan Africa and for which the proposals will be reviewed by an external scientific review committee appointed by Director TDR based on criteria such as scientific merit and relevance that also take in account gender and equity issues.

Section IV. Concept and approach

Rationale: Malaria is a preventable and treatable vector-borne disease. In 2010, an estimated 219 million cases occurred globally, with an estimated 660,000 deaths, mostly children under five years of age. Vector control interventions represent a key component of malaria control strategy. They are currently mainly based on the use of chemical insecticides for insecticide-treated nets (ITNs) and indoor residual spraying (IRS) of houses. Mosquito resistance to at least one insecticide used for malaria control has been identified in 64 countries. Consequently, monitoring insecticide resistance is a necessary element of the implementation of insecticide-based vector control interventions. In 2011, 77 countries reported that they had adopted the policy of insecticide resistance monitoring.

http://www.who.int/malaria/publications/world_malaria_report_2012/report/en/index.html

As requested by the World Health Assembly (64th WHA 2011), in May 2012, WHO (GMP) and RBM released the Global Plan for Insecticide Resistance Management (GPIRM) in malaria vectors (GPIRM 2012 http://www.who.int/malaria/vector_control/ivm/gpirm/en/index.html). It provides an action plan based on a five-pillar strategy (including a research agenda) to address the challenges posed to malaria control by the threat of development and spread of insecticide resistance. WHO and stakeholders called upon to contribute to the implementation of the action plan of the GPIRM.

Monitoring of insecticide resistance is a critical element for any medium/ large-scale deployment of insecticide-based vector control intervention. However, the point at which insecticide resistance reduces the effectiveness of vector control is still uncertain and may depend on locally identified resistance mechanisms (i.e. target site resistance, metabolic resistance, behavioural resistance and cuticular resistance). The need for research to address this issue is highlighted in the following publications: - World Malaria Report 2011: http://www.who.int/malaria/world_malaria_report_2011/en/

- World Malaria Report 2012:

http://www.who.int/malaria/publications/world_malaria_report_2012/report/en/index.html

- A research agenda for malaria eradication: Vector control

PLoS Medicine | www.plosmedicine.org 2 January 2011 | Volume 8 | Issue 1 | e1000401

In order to address this challenge, TDR research will contribute to the implementation of the GPIRM action plan by addressing GPIRM Strategy Pillar IV: Fill gaps in knowledge on mechanisms of insecticide resistance and the impact of current insecticide management approaches

Design and methodology: The detailed design and methodology will be developed in the proposals to be submitted by the applicants. In short: Prospective multi-country studies (at least three countries of different epidemiological characteristics per proposal) will be conducted within ongoing malaria control programmes to monitor insecticide resistance and assess resistance mechanisms and their effects on control failure in African countries where malaria vector control activities are ongoing and that are known to have detected resistance to the insecticides commonly used for indoor residual spraying and insecticide-treated nets. The research will use existing proven tools (including

molecular markers) to identify resistance mechanisms (i.e. target site resistance, metabolic resistance, behavioural resistance and cuticular resistance) and their effects of control failure in the ongoing malaria control programmes.

Approach to ensure quality: An adequate monitoring and evaluation plan backed up with periodic site visits will be used to ensure that the research is being conducted according to the highest standards to achieve the expected results

Significant risk 1: Potential delay at start up for selecting the projects through open call for applications and SAG review

Actions to mitigate: Adequate implementation plan with timely issuance of call for applications and appointment of the scientific review committee will greatly reduce this risk

Risk status: Completed

Significant risk 2: Timely availability of funds

Actions to mitigate: Following the approval of the activities and budget for 2014-2015 by JCB, TDR Programme management is working with VES to ensure that there will be no delay due availability of funds

Risk status: Completed

Estimated leverage description: The implementation of this project will benefit from the funding of ongoing malaria control programmes by donors such as PMI, Global Fund, and bilateral cooperation and from operational research on vector control and insecticide resistance monitoring activities funded partially by the Gates Foundation. In addition, it fits well in the context of the "Road map to support the implementation of the Global Plan for Resistance Management in Malaria Vectors in the WHO African Region (2013-2014)

Estimated 2018-19 (\$\$) \$600,000

ER 1.3.7 Environmental prevention and control of vector-borne diseases and infectious diseases in South-East Asia

Team: Vectors, Environment and Society

Strategic working area: Research for Implementation

Workstream and outcome: Environmental Changes Impact

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Bernadette RAMIREZ

TDR staff involved: Florence Fouque, Madhavi Jaccard-Sahgal

Number of partners/staff/consultants: To be determined

Synergy with other TDR work stream(s): This research programme is in line with TDR strategy and fully aligned with the mandate and thrust of the VES unit. The goal of this research programme is to contribute to strengthening environmental public health through access of community-centred envir....

Funding sources: UD (40M scenario)

Partners: WHO-PHE, WHO SEARO, WHO WPRO, consultants/experts; ASEAN NDI

Review mechanism: A Scientific Working Group (SWG), composed of external reviewers, will be tasked to provide scientific oversight, evaluate proposals, monitor progress of project implementation and to advise on strategic directions.

WHO Region(s): SEARO, WPRO

Country(ies): Cambodia and Thailand

Diseases: Dengue

Start date: 01-Oct-2015

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	No	
Coordination and decision-making are transparent	No	
Visibility of TDR and all partners/collaborators is highlighted in all documents	No	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$550,000	\$250,000	\$300,000
US\$ 50M budget	\$700,000	\$400,000	\$300,000
Expenditures and encumbrances	\$245,107	\$245,107	\$ 0
Balance	\$304,893	\$4,893	\$300,000

Section III. Objectives and results chain

Objectives: The goal of this research programme is to contribute to strengthening environmental public health through access of community-centred environmental health services for the control and prevention of priority infectious diseases. The specific objectives are: 1) to identify and characterize the environmental public health concerns and risks, and assess their potential impact on priority infectious diseases in a community; 2) to develop and implement a sustainable, community-centred adaptation strategy for access to environmental health support services that promote the improvement of environmental parameters and those which encourage the use of environmentally friendly and health technologies; and, 3) to assess and monitor the benefits resulting from the use, uptake and adoption of a sustainable, community centred adaptation strategy for access to environmental health support services for the control and prevention of priority infectious diseases.

Objectives updated:

ER outcome: This research programme is expected to contribute to strengthened environmental public health through the use, uptake and adoption of a sustainable, community-centred adaptation strategy for access to environmental health support services for the control and prevention of priority infectious diseases

Progress made towards outcome:

Output 1: Environmental public health concerns and risks identified, characterized and assessed for their potential impact on priority infectious diseases in a community

Indicator: Research reports, number of publications, scientific syntheses and research summaries on environmental public health concerns and risks and their potential impact on priority infectious diseases in a community

Target date: 31-Dec-2019

Related objectives: Objective 1

Progress status

Progress description:

Output 2: A sustainable, community-centred adaptation strategy developed and implemented for access to environmental health support services that promote the improvement of environmental parameters and those which encourage the use of environmentally friendly and h

Indicator: Number of meetings with the community and other relevant stakeholders, number of villages involved in the implementation activities.

Target date: 31-Dec-2018

Related objectives: Objective 2

Progress status

Progress description:

Output 3: Benefits assessed and monitored resulting from the use, uptake and adoption of a sustainable, community-centred adaptation strategy for access to environmental health support services for the control and prevention of priority infectious diseases

Indicator: New tools available for the communities, impact on people health measuring through changes in the burden of the diseases targeted.

Target date: 31-Dec-2019

Related objectives: Objective 3

Progress status

Progress description:

Changes to outcomes/outputs:

Approach to ensure uptake: TDR, together with the researchers (project funding recipients), will conduct networking and policy-advise activities to actively promote the products generated through this research programme.

Uptake / use indicator: 1) Increased national, regional and international attention generated by the research results; 2) Adoption of methods and tools

Target date:

Indicator status:

Publication plan: At least 3 publications from each of the 2 projects

Open access publications:

Approach to ensure gender and geographic equity: The research projects will follow gender-sensitive approaches in which all research activities will adopt an explicit gender perspective/framework and take into account gender differentials, and incorporate gender-sensitive approaches in the development of the community-centred adaptation strategy.

Section IV. Concept and approach

Rationale: Background and rationale

Every year more than one billion people are infected and more than one million people die from VBDs. VBDs also cause significant hardship and misery to affected populations. Many VBDs are prevalent in the South East Asia (SEA) and Western Pacific (WP) regions. These include, among others, mosquito-borne diseases (e.g. malaria, dengue, chikungunya, Japanese encephalitis, lymphatic filariasis), sandfly-borne disease (kala-azar) and snail-hosted disease (e.g. schistosomiasis), although there may be other lesser known VBDs such as Kyasanur forest disease and Crimean Congo haemorrhagic fever.

The purpose of this new programme is to stimulate collaborative research that would have a positive, transformative impact on health outcomes for populations challenged by VBDs within the context of an ever-changing environment (including climate change) in the framework of a complex socioecological system.

Building a health supportive environment requires intervention approaches are developed through coordinated multisectoral joint action and community empowerment. This research programme contributes to the use, uptake and adoption of VBD control/prevention products (such as innovative tools, solutions and delivery mechanisms and approaches to significant VBD challenges) that are preventative and sustainable.

Design and methodology: Conceptual Framework

TDR aligns its commitments, goals and values with the United Nations Sustainable Development

Goals (SDGs) and the work of the World Health Organization (WHO) Public Health and Environment Global Strategy, which provides the institutional/policy framework for the operationalization of holistic approaches to health. This includes integrative and sustainable control and prevention measures against vector-borne diseases (See ANNEX 1)

Transdisciplinarity (3) and systems thinking (4) interact in multiple complementary (mutually reinforcing) ways. Transdisciplinarity fosters relevant knowledge broker networking among sectors and community partners, as well as fosters knowledge integration and circulation among stakeholders. Systems thinking, on the other hand, stimulates epistemological pluralism (the collective representation of multiple “ways of knowing”), guides transdisciplinary team formation, and supports design and development of adaptive intervention strategies. Transdisciplinarity and systems thinking incorporate methods that include analysis of complex system dynamics and identification of knowledge gaps and information needs. The functional reciprocity of transdisciplinarity and systems thinking is reflected in the figure by the double arrow linking both compartments.

Together, transdisciplinarity and systems thinking provide the foundation for the operational principles that should guide the research proposals. These principles include commitments to values such as equity and equality that foster cultural sensitivity and respect, and gaining a deeper understanding of local circumstances, held values, and local knowledge. These values should prevail within and among communities of practice, whether working with villagers, scientists, policy-makers, or any other participant groups. The resulting interaction of perspectives and the willingness of involved participants to see each other’s perspectives (acceptance of epistemological pluralism) coupled with holistic analyses of issues, a priori, will help clarify “the problem”, identify the knowledge and methodological needs to address it, and foster the creation of transdisciplinary teams (continually refined throughout the project). Explicit intention should be given to translation of the knowledge created during the project into research uptake through adapted best practices and public health policy frameworks. Their alignment with “bottom-up” community-based interventions is an important condition for sustainability. This requires a focus on capacity building through deep engagement and knowledge sharing among communities of stakeholders. Successful proposals will incorporate these principles into their research design and the assessment of the outcomes created.

Approach to ensure quality: TDR and collaborating institutions/partners, in interaction with research institutions, will conduct networking and policy-advice activities to promote the products generated from the research programme.

Significant risk 1: Health researchers may find it difficult to work under transdisciplinary circumstances for perhaps the first time and may need assistance to work with other sectors (e.g. climate, agriculture, etc).

Actions to mitigate: The cross sectoral approach will be promoted from the outset as an essential aspect required of the proposals and throughout the projects.

Risk status:

Significant risk 2: Extreme weather or geo-political events could potentially disrupt project teams' research activities.

Actions to mitigate: In this event, TDR, along with collaborating partners, will make an assessment of the magnitude of disruption in order to determine whether the project team can continue in the same site after the limited pause in activities, needs to move to a new site

Risk status:

Significant risk 3: Having the studies conducted over 2 years should provide enough time to establish relationship and risk assessment, but they will need to be conducted under good statistical assessment and power in order to be able to draw valid conclusions.

Actions to mitigate: Statistical expertise will be utilized during the proposal development process, as well as the data analysis and writing workshops, to ensure statistical strength.

Risk status:

Significant risk 4: Knowledge translation outcomes are usually not under the control or influence of projects.

Actions to mitigate: For this research programme stakeholders, including from the affected communities and policy/decision-makers, will be engaged from the very beginning at the inception and during the course and completion of the research projects to ensure their active inv....

Risk status:

Estimated leverage description: Leverage is expected through voluntarily participation of experts and partners in programme implementation (particularly in technical implementation and training. Leverage is also anticipated from ASEAN NDI through funding support for capacity building and for hosting expert meetings.

Estimated 2018-19 (\$S) \$500,000

ER 1.3.8 Developed, pilot-tested and replicated an innovative training course for capacity building on gender-based analysis in vector-borne disease research and potential others infectious diseases of poverty

Team: Vectors, Environment and Society

Strategic working area: Research for Implementation

Workstream and outcome: Gender Equity

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Mariam OTMANI

TDR staff involved: Bernadette RAMIREZ, Pascal Launois, Madhavi Jaccard-Sahgal, Florence Fouque

Number of partners/staff/consultants: To be determined

Synergy with other TDR work stream(s): This is in line with TDR strategy and fully aligned with the capacity-building mandate and thrusts of the VES and RCS-KM units.

Funding sources: UD

Partners: WHO-PHE, TDR RCS-KM (through the TDR-supported Regional Training Centres)

Review mechanism: A Scientific Working Group (SWG), composed of external reviewers, will be tasked to provide scientific and technical oversight, evaluate proposed activities and to monitor progress in project implementation.

WHO Region(s): SEARO, WPRO, EMRO, PAHO, AFRO

Country(ies): RTCs in Colombia, Indonesia,

Kazakhstan, Philippines and Ghana

Diseases: Initially focused on vector-borne diseases

Start date: 01-Jul-2015

End date: 31-Dec-2020

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on

Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	No	
Roles and responsibilities of each partner are complementary	No	
Coordination and decision-making are transparent	No	
Visibility of TDR and all partners/collaborators is highlighted in all documents	No	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$100,000	\$100,000	\$ 0
US\$ 50M budget	\$100,000	\$100,000	\$ 0
Expenditures and encumbrances	\$77,772	\$77,772	\$ 0
Balance	\$22,228	\$22,228	\$ 0

Section III. Objectives and results chain

Objectives: The goal of this project is to develop and pilot-test a training course for capacity building on gender-based analysis in vector-borne disease research using an innovative global classroom approach. The specific objectives are: 1) to develop a training course on gender-based analysis based on an innovative global classroom approach, 2) to pilot-test the course and evaluate the feasibility of its implementation and 3) to improve on the design and delivery of such course.

Objectives updated:

ER outcome: This project is expected to deliver a training course for gender analysis using an innovative global classroom approach.

Progress made towards outcome:

Output 1: Training course developed and pilot tested in collaboration with the University of Ghana

Indicator: Course modules developed, peer reviewed and (first) pilot tested
Target date: 31-Dec-2018
Related objectives: Objective 1
Progress status: Completed
Progress description:

Output 2: Training course materials used by at least 2 research teams to deliver gender-based analysis within their own research products

Indicator: Number of research materials and products documented (e.g. case studies) with a clear gender analysis and sex-disaggregated data in their research projects
Target date: 31-Dec-2019
Related objectives: objective 1
Progress status: On track
Progress description:

Output 3: Training course upscaled after (second) pilot testing with additional research teams, RTC and/or universities

Indicator: Brief on training courses delivered to additional universities, research institutions.
Target date: 31-Dec-2020
Related objectives:
Progress status On track
Progress description:

Changes to outcomes/outputs:

Approach to ensure uptake: TDR and its collaborating partners will proactively engage with the RTCs for the design, pilot-testing and re-design as well as upscale of the training course on gender-based analysis.

Uptake / use indicator: Training course adopted and implemented by the RTCs and/or other interested research institutions

Target date: 31-Dec-2019

Indicator status: On track

Publication plan: Reports to be shared among the collaborating partners, SWG and RTCs, web-version of the training course

Open access publications:

Approach to ensure gender and geographic equity: This project addresses a gap in the technical capacity required for incorporating gender-based analysis in research.

Section IV. Concept and approach

Rationale: It was identified a need to strengthen research capacities in order to conduct gender-analysis and identify sex-disaggregated data within their research activities and projects.

Design and methodology: Incorporating gender analysis in vector-borne disease research requires technical capacity among researchers. This technical capacity is limited, especially in the disease endemic countries. Thus, capacity-building in this area is a gap that needs to be filled.

Incorporating gender analysis in vector-borne disease research requires technical capacity among researchers. This technical capacity is limited, especially in the disease endemic countries. Thus, capacity-building in this area is a gap that needs to be filled.

We therefore propose to manage and coordinate the development of a training course for capacity building on gender-based analysis in vector-borne disease research. The target audience for this training are researchers and policy-makers from disease-endemic countries. Further to this, we plan to support a delivery method of learning that will deviate from the traditional concept, that is, an innovative global classroom approach.

In the innovative global classroom approach, we envision the use of online learning e.g. use of web conferencing, video conferencing, discussion forum, use of blogs (and blog moderation); use of social media for assignments, assign reading and other class-related activities. We therefore propose to manage and coordinate the development of a training course for capacity building on gender-based analysis in vector-borne disease research. The target audience for this training are researchers and policy-makers from disease-endemic countries. Further to this, we plan to support a delivery method of learning that will deviate from the traditional concept, that is, an innovative global classroom approach.

In the innovative global classroom approach, we envision the use of online learning e.g. use of web conferencing, video conferencing, discussion forum, use of blogs (and blog moderation); use of social media for assignments, assign reading and other class-related activities.

Approach to ensure quality: TDR and collaborating institutions/partners, in interaction with research institutions, will conduct research and analysis advice activities to promote gender-based analysis within the products generated from the research programme.

Significant risk 1: Researchers not familiar with social science research may take time to effectively incorporate the learning into their research plans

Actions to mitigate: Close follow up and a tracking mechanism will be established as well as support provided by the University of Ghana

Risk status: On track

Estimated leverage description:

Estimated 2018-19 (\$\$) \$100,000

ER 2.1.1.1 Strategic support to WHO regional activities: the regional training centres

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Research Capacity Strengthening

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Launois P

TDR staff involved: Vahedi M, Kachouri N

Number of partners/staff/consultants: 4

Synergy with other TDR work stream(s): All

Funding sources: TDR core funding + designated funds to be found

Partners: Research and academic institutions in LMICS; WHO disease control programmes and research departments at HQ, Regions and Country offices

Review mechanism: External review & internal management evaluation

WHO Region(s): Global **Country(ies):** Not country-specific

Diseases: Not disease-specific

Start date: 01-Jan-2014

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	see table above
Roles and responsibilities of each partner are complementary	Yes	RTCs 'role is to implement/ disseminate training courses. TDR's role is to support the development of training courses in response to needs , ensure the quality of the course and the quality of the trainings at satellite institutions.
Coordination and decision-making are transparent	Yes	Decision making is done though the TDR RCS Scientific Working Group.
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	The name of the institutions that TDR is supported is officially: RTC supported by TDR in WHO-X region

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$1,230,000	\$1,030,000	\$200,000
US\$ 50M budget	\$1,430,000	\$1,230,000	\$200,000
Expenditures and encumbrances	\$663,743	\$663,743	\$ 0
Balance	\$566,257	\$366,257	\$200,000

Section III. Objectives and results chain

Objectives: 1) Support RTCs to become operational in the implementation of short training courses on Good Health Research Practice and Implementation research in the region; 2) Facilitate an effective coordination of the six selected RTCs to become an effective network

Objectives updated:

ER outcome: Increase health research quality in LMICS through their abilities to organize, manage and conduct health research

Progress made towards outcome: 560 letter of intents on specific IR questions have been received as final assignments of the MOOC.

Output 1: Support RTCs to become operational in the implementation of short training courses on Good Health Research Practice and Implementation research in the region;

Indicator:	At least two different short training courses on IR or Good Health Research Practice implemented in each RTC
Target date:	01-Oct-2019
Related objectives:	Support RTCs to become operational in the implementation of short training courses on Good Health Research Practice and Implementation research in the region;
Progress status	On track
Progress description:	Short training courses in Good Health Research Practice (EPPE, GCP, GCLP and GHRP) institutionalised in 5 out of 6 RTCs supported by TDR. The RTC supported by TDR in EUR develop a training course on research ethics.

Output 2: Support RTCs to become operational in the dissemination in the region of short training courses on IR and Good Health Research Practice

Indicator:	one satellite institution per RTC ready to implement at least one training course in IR or Good Health Research Practice
Target date:	01-Oct-2019
Related objectives:	Support RTCs to become operational in the implementation of short training courses on Good Health Research Practice and Implementation research in the region;
Progress status	On track
Progress description:	Four out of six RTCS supported by TDR have already implemented short training courses in satellites institutions in their respective regions (AFR, AMR , EUR and SEAR) . The two others have identified partners and institutionalisation of short training courses in these partners will be set up in 2019.

Output 3: An effective coordination of the RTC initiative

Indicator:	Number of courses included in the RTC curricula
Target date:	01-Oct-2019
Related objectives:	Facilitate an effective coordination of the six selected RTCs to become an effective network
Progress status	On track
Progress description:	Each RTC has at least two short training courses implemented in their respective institutions

Changes to outcomes/outputs: 560 letter of intents on specific IR questions have been received as final assignments of the MOOC.

Approach to ensure uptake: Analysis of data base in each RTC of supported projects

Uptake / use indicator: 25% increase in number of research projects supported by RTC trainees in each region - which meets international standards

Target date: 01-Jan-2020

Indicator status: On track

Publication plan: A manuscript on the lessons learnt from the successful dissemination of the EPPE training courses in Latin America has been developed and is ready to be send to publisher.

Open access publications:

Approach to ensure gender and geographic equity: PI of RTC in AFRO, EURO and AFRO are female. Most of trainers are female (64%). Women researchers are encouraged to participate to the trainings offered by each RTC

Section IV. Concept and approach

Rationale: Capacity in good health research practices and project management skills so that health research is efficiently and effectively organized, planned, implemented, monitored and evaluated is needed in LMICS institutions. There is also a need to develop capacities in Implementation Research. These skills are not readily taught in academic scientific curricula. The vision is to develop effective and efficient engagement and leadership of health researchers from disease endemic countries in disease control efforts for poverty alleviation and development. Its main objective is to establish a RTC in each WHO region which will help decentralize short course training programmes for good practices/bioethics/project planning and evaluation as well as IR training courses

Design and methodology: 1. Engaging already selected RTCs in Colombia, Ghana, Indonesia, Kazakhstan, Philippines and Tunisia in implementing and disseminating good health research practice and Implementation training courses (TC, development strategic plan); 2. Identification of the training gaps in good health research practices for each RTC in response to specific needs (TC and site visit); 3. develop training courses (if not already available) in response to these identified needs; 4.Implementing the training courses in the RTC training programme (TDR direct and indirect support though grants and selection of experts needed for the implementation of first courses)

Approach to ensure quality: Qualification of trainers using ToT. High quality standards developed for ToT courses. External evaluation after five years.

Significant risk 1: Unable to identify suitable satellite institutions for disseminating the package of training courses

Actions to mitigate: Involve WHO RO from the beginning to ensure selection of the most appropriate institution and already capacity building initiatives

Risk status: On track

Significant risk 2: Mismatch of the proposed training courses to the regional needs and demands

Actions to mitigate: Involve WHO RO from the beginning to identify regional research and capacity building needs

Risk status: On track

Significant risk 3: Poor uptake of the courses on good health research practice and implementation by the LMICs in each region

Actions to mitigate: Promote the training courses through the regional offices and collaborative research networks

Risk status: On track

Significant risk 4:

Actions to mitigate:

Risk status:

Estimated leverage description: The number of sites and researchers that meet international good practices standards will be increased and as a consequence the number of projects financially supported by national or international bodies.

Estimated 2018-19 (\$\$) \$500,000

ER 2.1.1.2 WHO Regional Office collaboration and small grants

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Garry Aslanyan

TDR staff involved: Elisabetta Dessi

Number of partners/staff/consultants: none

Synergy with other TDR work stream(s): Small grants include capacity building and implementation research, as well as global engagement which are in line with TDR work areas.

Funding sources: Undesignated funds

Partners: All six WHO Regional Offices, country offices and institutions in countries as appropriate

Review mechanism: (1) Strategic review by SWG, (2) small grants review by RO, TDR and external reviewers, and (3) project reviews by regional external reviews

WHO Region(s): Global **Country(ies):**

Diseases: RCS, KM and research priorities in all TDR related infectious diseases of poverty, plus region specific priorities

Start date: 01-Jan-2018

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives No

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information This is done by each WHO Regional Office.

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Partnership with WHO and its regional offices
Roles and responsibilities of each partner are complementary	Yes	WHO regional offices help support TDR objectives in regions
Coordination and decision-making are transparent	Yes	Each WHO regional office negotiates in a transparent way the kind of small grant programme they would prefer
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	The calls are always jointly published and results are jointly communicated by TDR and each regional office

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$1,100,000	\$1,000,000	\$100,000
US\$ 50M budget	\$1,200,000	\$1,000,000	\$200,000
Expenditures and encumbrances	\$171,969	\$171,969	\$ 0
Balance	\$928,031	\$828,031	\$100,000

Section III. Objectives and results chain

Objectives: 1. Financial and technical support for regional research, capacity building and knowledge management priorities; and 2. Promote enhanced collaboration between TDR and all WHO Ros

Objectives updated:

ER outcome: Research capacity will be enhanced and research will generate region specific evidence and solutions for priority public health issues

Progress made towards outcome: Calls took place in PAHO, EMRO, AFRO and WPRO

Output 1: Small Grants schemes operationalized in at least 5 Ros

Indicator: Small Grants calls launched, projects selected and funded
Target date: 02-Dec-2019
Related objectives: 1
Progress status: On track
Progress description: Calls were started in 4 Ros

Output 2: Functional collaboration frameworks with at least 5 ROs established

Indicator: Evidence of collaboration frameworks effectiveness based on successful joint projects and activities
Target date: 02-Dec-2019
Related objectives: 2
Progress status: On track
Progress description: Collaboration frameworks are established with all 6 ROs, successful annual meeting, TDR part of regional ACHRs where appropriate.

Changes to outcomes/outputs: Calls took place in PAHO, EMRO, AFRO and WPRO

Approach to ensure uptake: All small grants calls will require inclusion of research update sections and periodic monitoring of research results will be conducted to assess and recommend potential update strategies

Uptake / use indicator: At least 8 cases of new/improved solutions, implementation strategies or innovative knowledge resulted from research funded by small grants are successfully applied in DEC

Target date: 12-Dec-2019

Indicator status: On track

Publication plan: TDR to enable publication of results from small grants in each region and bring this to RSG, Regional ACHRs and others if appropriate

Open access publications: Small grants supported research is published only in open access publications

Approach to ensure gender and geographic equity: Preference will be given to competitive female candidates of small grant calls and to countries with less developed research capacity. Possibility of outsourcing some of the responsibilities to RTC or other institutions in regions or engaging fellows from other RCS initiatives.

Section IV. Concept and approach

Rationale: The integrated approach to strategic regionalization of TDR activities will ensure regional focus and increased visibility of TDR's new strategy as recommended by STAC and JCB. This expected result is a key activity that facilitates TDR's global engagement functions. It will also facilitate the engagement of WHO control programmes and research units at both HQ and at Regional Offices. This approach will:

- Facilitate planning in a coherent way through networks and collaboration with ROs bringing together the different initiatives of TDR under an overarching approach
- Foster the role of LMICs in research and priority settings in support to the development of better approaches for control of diseases, focusing on regionally identified research and training needs.

Promote better integration on TDR's research, capacity strengthening and knowledge management functions.

Design and methodology: Each round of calls will be evaluated and verified before the next annual cycle is launched, collaborate with KMS focal points on research proposal writing training. Main steps of implementation will include: (1) Rounds of discussions with each RO, (2) internal TDR prioritization of RCS/KM and research priorities in each region; (3) request and review priorities list from each RO; (4) Joint discussion and agreement on synergetic areas of interest to TDR and each RO; (5) development and review of the call for proposals; (6) issue and disseminate calls for proposals through TDR and RO networks; (7) screening and selection of the proposals; (8) funding and implementation of projects; (9) monitoring and reporting; (10) results translation, publication and dissemination

Approach to ensure quality: SWG review, extensive internal TDR and RO input. Use standardised templates for call for proposals, reviews and follow ups.

Significant risk 1: Insufficient managerial and technical staff at ROs

Actions to mitigate: Possibility of outsourcing some of the responsibilities to RTC or other institutions in regions or engaging fellows from other RCS initiatives

Risk status: On track

Significant risk 2: Instability and inconsistency of regional focal points

Actions to mitigate: Ensure broader engagement of other staff in ROs and support and buy-in from appropriate directors in each RO.

Risk status: On track

Estimated leverage description: Staff time in Ros and possible matching funds

Estimated 2018-19 (\$\$) \$900,000

ER 2.1.2 Targeted research training grants in low-and middle-income countries

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Research Capacity Strengthening

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Dermot Maher

TDR staff involved: Mahnaz Vahedi (Project Management) , Edward Mberu Kamau (M&E) and Nacer Tarif (Technical Assistant)

Number of partners/staff/consultants:

Synergy with other TDR work stream(s): All

Funding sources: TDR core funding

Partners: The following universities are partners with TDR in this scheme: James P Grant School of Public Health, BRAC University, Dhaka Bangladesh; Universidad de Antioquia, Medellin, Colombia; University of Ghana, Accra, Ghana; Universitas Gadjah Mada, Jogjakarta

Review mechanism: M&E framework is currently being implemented. TDR/RCS scientific working group reviewed the progress in Nov 2018 and recommended continuation of the scheme and scale up if more funding is available.

WHO Region(s): African Region, Region of the Americas, South-East Asia Region, Eastern Mediterranean Region, Western Pacific Region. **Country(ies):** Low-and middle income countries in all WHO regions apart from European Region

Diseases: IR with a focus on NTD, TB/HIV and malaria

Start date: 01-Jan-2014

End date:

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Objectives are aligned
Roles and responsibilities of each partner are complementary	Yes	Roles and responsibilities are complementary
Coordination and decision-making are transparent	Yes	Coordination is transparent
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Visibility of TDR and its partners are highlighted

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$3,550,000	\$3,050,000	\$500,000
US\$ 50M budget	\$7,650,000	\$6,050,000	\$1,600,000
Expenditures and encumbrances	\$2,819,281	\$2,819,281	\$ 0
Balance	\$730,719	\$230,719	\$500,000

Section III. Objectives and results chain

Objectives: 1. To train early career leading to masters and PhD degrees.

2. Post-doctoral advanced training on leadership

Objectives updated:

ER outcome: Strengthen capacity for scientists to contribute to public health priority setting, research, programme implementation and training in countries with low research capacity.

Progress made towards outcome: By March 2019, 186 master's students have been awarded fellowship and 8 PhD fellowships are ongoing.

Output 1: Early career trainees completed their degrees in their home countries or within the region.

Indicator: At least 40 trainees enrolled for master's and 8 PhDs completed

Target date: 31-Dec-2019

Related objectives: 1

Progress status On track

Progress description: Postgraduate scheme established in 2015 involving 7 universities fully implemented and lessons learned in 2018. By March 2019, the cumulative number of students supported by TDR since 2015 is 192 (186 master's and 8 PhD).

Output 2: Post-doctoral completed their leadership training

Indicator: At least 2 post-doctoral fellows enrolled or completed postdoctoral fellowships

Target date: 31-Dec-2019

Related objectives: 2

Progress status On track

Progress description: Postdoctoral pilot training scheme established in 2015 hosted by Noguchi Institute in Accra, Ghana. By 2019, TDR has been supporting 3 post-doctoral fellows in IR training.

Output 3: A global network (intra-inter regional) of TDR supported scientists in IR developed

Indicator:	Joint annual networking meeting held for planning, lessons learned, improving communications and collaborations amongst seven universities in different regions.
Target date:	31-Dec-2019
Related objectives:	
Progress status	On track
Progress description:	On Q3 2019, a networking meeting at one of the participating universities will be held to share lessons learnt and engage several students across the network.

Changes to outcomes/outputs: By March 2019, 186 master's students have been awarded fellowship and 8 PhD fellowships are ongoing.

Approach to ensure uptake: The participating universities will be encouraged to develop partnerships with home institutions to provide integration opportunities for the grantees, for example through an agreed mentorship and return home plan between the trainee, home institution sup

Uptake / use indicator: Number of graduates and advanced fellows employed in their home country or region upon completion of training.

Target date: 31-Dec-2020

Indicator status: On track

Publication plan: Graduates and fellows are encouraged to publish at least one peer reviewed article. TDR supports publication in Open Access journals. Earliest publications expected by mid-end of 2020.

Open access publications: All TDR grantees are encouraged to publish in open access journals

Approach to ensure gender and geographic equity: All trainees will be from LMICs. Applications received in languages other than English are given equal opportunity. We encourage that gender and geographical equity are taken into account in the selection of the candidates without compromising the quality of the application. The key challenges for women in LMICs (including lack of access to relevant education for women and structural barriers in research institutions) may be far beyond the TDR mandate. We aim at having 40- 50% of women trainees in our scheme.

Section IV. Concept and approach

Rationale: Human resource for health research is often accorded low priority as a component of human resource for health in general. A critical mass of indigenous health researchers is necessary for meaningful engagement of DEC in research agenda setting and conduct of research related to their own priority health issues.

Early Career grants: TDR has tested the approach to identifying potential DEC researchers through support for postgraduate research degrees. While in the past the field of study has been largely unrestricted, early career grants to be awarded in 2018-2019 will focus on disciplines highly relevant to implementation research (for example Epidemiology, Biostatistics, Medical Sociology, Anthropology and Health Economics and Policy). In addition, it will seek to address inequities in health research capacity in LMICs and facilitate mentorship and research support. The proposed career grants will enhance the capacity of recipients to:

- appreciate core competencies of implementation research in planning, managing health research programs (when applicable);
- communicate research results effectively to inform policy and practice;
- widen their professional network at national and international level;

Through TDR Global platform, this scheme will proactively engage TDR alumni and co-sponsors as facilitators/mentors.

Design and methodology: There will be open calls for applications from individuals with confirmed registration/admission to a recognized training institution in LMIC. Women will be encouraged to apply. Applications will be reviewed by the universities admission processes who will make recommendations.

Approach to ensure quality: All articles will be published in peer reviewed open journals.

Significant risk 1: Some grantees from LMICs are likely to work on other SDG related fields (beyond infectious diseases of poverty)

Actions to mitigate: To provide linkages with the universities/students and WHO regional offices, TDR supported regional training centres and TDR supported research projects.

Risk status: On track

Significant risk 2: Competition from similar and well-funded initiatives

Actions to mitigate: Seek to identify specific niche and complementarity/collaborative approaches with such initiatives. Promote the concept and value of integrated training in implementation research.

Risk status: On track

Significant risk 3: Lack of transparency or inadequacy in selection of students resulting in inequity, lack of diversity and admission of low quality students, inadequate quality training offered by some of the selected universities.

Actions to mitigate: As a sponsor, TDR will provide input in students' final selection and also will provide regular audit to the scheme. Subsequently, TDR in consultation with SWG will make appropriate decision on how best to optimise the scheme.

Risk status: On track

Significant risk 4: Allocating inadequate resources to sustain the scheme resulting in discontinuation of the scheme with premature termination for the students

Actions to mitigate: Sufficient UD fund earmarked for the scheme
Looking for DF to scale up the scheme

Risk status: Planning phase

Estimated leverage description:

- TDR Global will provide a platform to promote partnerships with previous TDR grantees and expert committee members to serve as mentors for trainees in their countries/regions. These partnerships will seek to benefit both the mentor and mentee as well as tap into past TDR investments in the mentors and their institutions.

- Partnership with TDR cosponsors and relevant global health initiatives as hosts for short-term attachment of advanced career grantees. "

Estimated 2018-19 (\$\$) \$250,000

ER 2.1.4 Advanced training in Clinical Product Development (Career Development Fellowship grants)

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Research Capacity Strengthening

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Pascal Launois

TDR staff involved: Mahnaz Vahedi & Najoua Kachouri

Number of partners/staff/consultants: 3

Synergy with other TDR work stream(s): All

Funding sources: Bill & Melinda Gates Foundation

Partners: WHO Essential Medicines & Pharmaceutical policies; IFPMA; pharmaceutical companies; Product Development Partnerships (PDPs); public research institutions.

Review mechanism: 1) External review to identify relevance, effectiveness, efficiency and outcomes of the programme with the goal to assist recommendations and future decision making ; 2) internal management evaluation

WHO Region(s): Global

Country(ies): Not country-specific

Diseases: Not disease-specific

Start date: 01-Sep-2014

End date: 29-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	see table above
Roles and responsibilities of each partner are complementary	Yes	A booklet for the role and responsibilities of each partner developed .
Coordination and decision-making are transparent	Yes	Common decision making process developed
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Done

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$2,420,000	\$20,000	\$2,400,000
US\$ 50M budget	\$2,420,000	\$20,000	\$2,400,000
Expenditures and encumbrances	\$1,526,241	\$9,975	\$1,543,016
Balance	\$867,009	\$10,025	\$856,984

Section III. Objectives and results chain

Objectives: To develop R&D leadership in low and middle income countries for control of infectious diseases of poverty through targeted research and development training in priority health issues; by 1) increasing the critical mass of highly skilled scientists in R&D in low and middle income countries , 2) provide a dedicated platform and online community for alumni

Objectives updated:

ER outcome: Highly skilled trainees (for drugs , vaccines and diagnostics) in LMICs leads clinical trials in their country/region.

Progress made towards outcome: 31 fellows trained during the last two years. 30/31 came back to their home institution and play a critical leadership role in clinical trials.

Output 1: Highly skilled scientists in R&D in LMICs

Indicator: 45 fellows trained

Target date: 30-Nov-2019

Related objectives:

Progress status On track

Progress description: 49 fellows will have been trained during the last three years

Output 2: R&D skills gained during the training implemented in the home institution through re-entry grant

Indicator: 70% of home institutions involved in national or international R&D projects

Target date: 30-Nov-2019

Related objectives:

Progress status On track

Progress description: A re-entry plan was developed with all fellows during the last quarter of their placement, in collaboration with the home and the training institutions. The 12-month plan for the majority (6/13) was to implement the good clinical health

research guidelines (GCP-GCLP-Ethics - safety monitoring), 2/13 to implement project management skills, and one to establish a formal quality management system in his institution. Two fellows developed trainings in data management and implemented them at regional levels by organizing a preconference workshop on good practices in clinical trials data management at the 7th Multilateral Initiative on Malaria (MIM), held in Dakar, Senegal, on 15 April 2018.

In addition, an evaluation and an impact survey is currently under development

Output 3: A online community practice available

Indicator: 80% of fellows active in the dedicated website

Target date: 30-Nov-2019

Related objectives:

Progress status On track

Progress description: All fellows are enrolled in a professional membership scheme (PMS) through The Global Health Network. This network is part of an online continuing professional development scheme for clinical trialists working in global health and is supported by the Bill and Melinda Gates Foundation.

Changes to outcomes/outputs: 31 fellows trained during the last two years. 30/31 came back to their home institution and play a critical leadership role in clinical trials.

Approach to ensure uptake:

Uptake / use indicator: 70 % of fellows have implemented their skills in their working environment

Target date: 30-Dec-2019

Indicator status: On track

Publication plan: Publications of success stories along the grant; annual reports

Open access publications:

Approach to ensure gender and geographic equity: Challenge contest for identifying solutions to the gender balance (22% of women are applying). Men and women scientists equally represented with a break of 6 monthly for the placement of women fellows with children. Training programme is designed to target fellows from low and middle-income countries in different WHO regions.

Section IV. Concept and approach

Rationale: An increasing number of new products for Infectious Diseases of Poverty are in the pipeline of product development organizations. However, engagement of LMICs in the process has been limited to the lack of expertise. The scaling up of the CDF programme to clinical product development in a partnership with EDCTP that develops a similar project is in line with the RCS/KM strategy to develop individual and institutional capacity.

Design and methodology: 1) identification of potential training partners institutions (pharmaceutical companies, PDPs, research institutions) ; 2) selection of fellows based on clear criteria (e.g. gender, geographical distribution and needs); 3) training in response to the needs; 4) reintegration in home country after completion of the scheme by developing a specific re-entry grant (avoiding brain drain) and; 5) developing alumni community through annual alumni meetings and an online platform.

Approach to ensure quality: Selection of partners through IFPMA (an NGO recognized by WHO) with no direct approach with the pharmaceutical companies; selection of fellows by both TDR and partners by using a clear selection criteria (inclusion/exclusion criteria- review committee); competitive open calls; clear roles& responsibilities for fellows , home and host institutions and TDR; letter of award regularly reviewed by committee and LEGAL unit in WHO; regular progress reports (six and 12 months during the training and 12 months after the training); random validation (15%) of the information concerning expertise obtained from grantee done by website manager; feedback from both partners and fellows on the efficiency of the programme.

Significant risk 1: Insufficient interest of clinical product development partners as training partners

Actions to mitigate: Adequate communication with Pharma companies through IFPMA; proactive approach to identify new partners outside existing pharmaceutical companies.

Risk status: On track

Significant risk 2: Geographical distribution biased to AFRO due to EDCTP Partnership which focus only on sub-Saharan countries

Actions to mitigate: Distribute call for applications through the WHO RO/CO and TDR networks outside Africa and through social media

Risk status: On track

Significant risk 3: Insufficient funds to cover all the training needs.

Actions to mitigate: Develop a multi funder model by adding new funding partners; develop a partnership with more financial involvement of host partners.

Risk status: On track

Estimated leverage description: Host institutions as in-kind support (accommodation , meeting support , trainings in situ and support for site visits in LMIC.

ECTP partnership.

Estimated 2018-19 (\$\$) \$1,200,000

ER 2.1.6 UNDP Structured capacity Building in Implementation Research to improve access and delivery of health technologies in LMICs

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Research Capacity Strengthening

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Olumide Ogundahunsi

TDR staff involved: Olumide Ogundahunsi, Edward Kamau, Nacer Tarif (RCS); Christine Halleux, Ekua Johnson (IIR)

Number of partners/staff/consultants: 5 (10 to 80% time)

Synergy with other TDR work stream(s): Cross unit implementation with research activities on safety monitoring and pharmacovigilance

Funding sources: UNDP Designated funding

Partners: UNDP, LMIC institutions (Ministries of Health, Research institutions and Universities)

Review mechanism: Access and Delivery Partnership scientific advisory group convened by UNDP

WHO Region(s): AFRO and SEARO

Country(ies): Ghana, India, Indonesia, Malawi, Senegal, Tanzania, Thailand and other LMICs to be identified

Diseases: Malaria, TB and NTDs

Start date: 01-Apr-2017

End date: 31-Mar-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information TDR partners and collaborates with UNDP. TDR is responsible for its activities and deliverables with national institutions in member states. Activities of other entities (PATH) is managed by the UNDP within the agency's responsibility.

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	YES
Roles and responsibilities of each partner are complementary	Yes	YES
Coordination and decision-making are transparent	Yes	YES
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	YES

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$1,000,000		\$1,000,000
US\$ 50M budget	\$1,000,000		\$1,000,000
Expenditures and encumbrances	\$108,751		\$108,751
Balance	\$891,249		\$891,249

Section III. Objectives and results chain

Objectives: 1. Uptake and use of TDR IR resources in LMICs.

2. Capacity in implementation research (IR) in LMICs through targeted training or research teams.

3. Application of IR to optimize access and delivery of health interventions including health technologies in LMICs

Objectives updated:

ER outcome: LMICs properly identify and address factors that impede the effective access and delivery of health technologies

Progress made towards outcome: Three LMICs have identified bottlenecks in their health systems. Two of these have prepared plans to facilitate introduction of specific new health technologies with technical input from TDR and are now seeking funding.

Output 1: LMICs adopt and use TDR IR resources (IR Toolkit, MOOC, short courses on IR in RTCs (etc)

Indicator: At least 5 LMICs use TDR IR resources in their research and training activities

Target date: 31-Mar-2020

Related objectives:

Progress status On track

Progress description: Training workshops have been implemented in Ghana, Tanzania and Indonesia using the TDR implementation research toolkit. Several participants in these workshop enrolled for the MOOC on IR as recommended in the toolkit.

Output 2: LMIC research teams trained to develop and implement implementation research projects and disseminate the findings

Indicator: At least 1 LMIC research team develops and fund IR projects to address implementation bottle necks

Target date: 31-Mar-2020

Related objectives:**Progress status** On track**Progress description:** Two (2) LMICs - Ghana and Tanzania have developed system wide IR projects and are now seeking funding support.**Output 3:** LMICs use IR to optimise and scale up health interventions (including technologies, policies and strategies)**Indicator:** At least 1 IR project aimed at addressing a specific access and delivery issue conducted and reported**Target date:** 31-Mar-2020**Related objectives:****Progress status** On track**Progress description:** Linked to output 2 above. Two projects (Malaria vaccine and paediatric formulation for anti-schisto drug) have been developed and awaiting funding for implementation. A third project Optimization of the rapid molecular diagnostics (Xpert MTB/Rif and Genotype MTBDR plus) for early MDR-TB diagnosis and treatment in Tanzania was completed and reported in the East African Health Research Journal.**Changes to outcomes/outputs:** Three LMICs have identified bottlenecks in their health systems. Two of these have prepared plans to facilitate introduction of specific new health technologies with technical input from TDR and are now seeking funding.**Approach to ensure uptake:****Uptake / use indicator:****Target date:****Indicator status:****Publication plan:****Open access publications:****Approach to ensure gender and geographic equity:****Section IV. Concept and approach****Rationale:** Health and human development are interrelated. Diseases, inadequate access to health technologies (medicines, vaccines, diagnostics and devices) and poor implementation of health policies and strategies impact human development. Targeting tuberculosis, malaria and neglected tropical diseases for elimination in the context of the Sustainable Development Goals adopted by the global community underscores the importance of this relationship.

The optimum introduction (including access, delivery and usage) of new or proven (validated) interventions (treatment, policies, strategies etc.) is critical for achievement of good health outcomes and ultimately the improvement of the health and wellbeing of populations. This however is often not the case due to implementation obstacles and barriers. These barriers are often related to failure to properly identify and contextualize regional, country or community specific characteristics and put in place actions to address them in real time or prior to deployment. Failure to address these impediments before large scale deployment of a new technology may result in considerable costs to the health system as well as loss of confidence in the technology by the target population. The importance of research in identifying solutions and options for overcoming implementation obstacles, barriers and bottlenecks (problems), in health systems and programs is now widely recognized. A posteriori, these problems may be anchored in the factors related to the local community, national, regional, or health system contexts among others. There however remains a limited understanding of the process of conducting implementation research as distinct from other research domain. In the past 5 years, TDR has put in place a number of initiatives to raise awareness and knowledge on IR especially in LMICs.

Design and methodology: 1) Establishment of a pool of resource persons drawn for TDR RTCs, IR toolkit development team, implementers and academia.

2) Consultation with in-country stakeholders to identify priorities and areas of need.

2) A structured capacity building programme capacity building programme from training to actual implementation of research projects

Approach to ensure quality: 1) Countries and teams to participate in the programme will be identified and selected based on defined criteria by the Access and Delivery Partnership.

2) Regular monitoring of implementation of the programme by TDR staff and consultants.

Significant risk 1: Issues addressed by the projects are of low priority to country needs

Actions to mitigate: Careful selection of concept notes and alignment with documented national research priorities

Risk status: On track

Significant risk 2: Implementation of project deviate from core objective of UNDP led Access and Delivery partnership

Actions to mitigate: Involvement of partnership in the project planning from the beginning

Risk status: On track

Significant risk 3: Low quality implementation at country level

Actions to mitigate: Careful selection of partners and adequate training of country teams prior to implementation and regular monitoring.

Risk status: On track

Estimated leverage description: Actual amount of funds leverage will depend on the scope and number of IR projects funded as a result of this ER (by countries or development partners). Additional non-monetary leverage will be through participation of collaborators, experts and partners.

Estimated leverage funds \$250,000

Estimated 2018-19 (\$\$) \$250,000

ER 2.2.1 Knowledge Management shaping the research agenda.

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Rob Terry

TDR staff involved: Rob Terry, Elisabetta Dessi, Piero Olliario, Dermot Maher, Florence Fouque and other team members

Number of partners/staff/consultants: 2 consultants

Synergy with other TDR work stream(s): 1) Continuous identification of research and research capacity needs is key to inform stakeholder's strategies (HTM, WHO RO, funding agencies, countries). 2) Provide technical support through Regional Offices to Member States engaged with health research

Funding sources: Undesignated funds for the TDR and wider priorities. Designated funds for the specific work on R&D financial modelling.

Partners: HTM, WHO Regional Offices, Alliance HPSR, funders interested in IR/OR (e.g. ESSENCE members), Duke University, Policy Cures Research, PATH, MMV, FIND, Malaria No More, COHRED.

Review mechanism: All SWG within TDR.

WHO Region(s): Global

Country(ies): Focus on LICs aligned with priorities from TDR research teams

Diseases: All diseases including non-infectious diseases for the R&D fund.

Start date: 01-Jan-2018

End date: 31-Dec-2018

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	Yes	
Coordination and decision-making are transparent	Yes	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$300,000	\$100,000	\$200,000
US\$ 50M budget	\$550,000	\$250,000	\$300,000
Expenditures and encumbrances	\$14,454	\$10,764	\$3,690
Balance	\$285,546	\$89,236	\$196,310

Section III. Objectives and results chain

Objectives: Continuous identification of research and research capacity needs is key to inform stakeholder's strategies (HTM, WHO RO, funding agencies, countries). This applies to TDR's own portfolio of future priorities and to that of stakeholders. TDR's engagement in this area ensures that its future priorities engage key stakeholders in disease endemic countries in setting the research agenda and ensuring research reflects their needs as well as guides the stakeholder engagement. Two key areas are identified: (1) implementation/operations research in the area of control of infectious diseases of poverty and (2) research capacity strengthening.

Objectives updated:

ER outcome: (1) Gap analysis conducted, stakeholder dialogue facilitated priorities identified and reflected in TDR programmes. 2) Technical support provided through Regional Offices to Member States undertaking health research priority setting.

Progress made towards outcome:

Output 1: One report/resource per biennium based on a scoping review in the area IR/OR research to further map partners, priorities, ongoing activities and TDR work in this context.

Indicator: Report published and/or resource established

Target date: 31-Dec-2018

Related objectives: 1

Progress status: Completed

Progress description: A report "Bridging the gaps in malaria R&D: An analysis of funding—from basic research and product development to research for implementation" was published in May 2018. Partners included PATH, WHO, MMV, FIND, IVCC, Malaria No More, Policy Cures Research.

Output 2: One research priority setting exercise supported p.a.

Indicator:	Report published and/or resource established
Target date:	31-Dec-2018
Related objectives:	2
Progress status	Completed
Progress description:	Work supported by Swiss Agency for Development and Cooperation (outside of TDR budget). Two papers 1 - the new R&D modelling tool and 2 - the use of the tool to map the product pipeline for HIV, TB, malaria and the NTDs.

Output 3: Complete a Research Fairness Initiative assessment for TDR

Indicator:	Report published and verified by COHRED
Target date:	01-Jan-2018
Related objectives:	
Progress status	Completed
Progress description:	TDR Research Fairness Initiative report published in February 2018.

Changes to outcomes/outputs:

Approach to ensure uptake: 1&2 Publication of results in reports and academic press. Create linkage with implementation agencies and LMICs ministries.

Uptake / use indicator: Citation, press coverage, downloads of material. Follow up evaluation of behavioural change and impact assessment.

Quality and number of projects applying to R&D fund.

Target date: 31-Dec-2017

Indicator status: Completed

Publication plan: Report and academic papers

Open access publications: Terry RF, Yamey G, Miyazaki-Krause R et al. Funding global health product R&D: the Portfolio-To-Impact Model (P2I), a new tool for modelling the impact of different research portfolios [version 2; referees: 2 approved]. Gates Open Res 2018, 2:24 (<https://doi.org/10.12688/gatesopenres.12816.2>)

Young R, Bekele T, Gunn A et al. Developing new health technologies for neglected diseases: a pipeline portfolio review and cost model [version 2; referees: 3 approved]. Gates Open Res 2018, 2:23. (<https://doi.org/10.12688/gatesopenres.12817.2>)

Approach to ensure gender and geographic equity: Priority given to disease endemic countries. Gender issues one of the weighted selection criteria for priority selection to ensure equitable distribution of priorities. New methodological approaches developed to priority setting to ensure gender balance is achieved.

Section IV. Concept and approach

Rationale: Continuous identification of research and research capacity needs is key to inform stakeholder's strategies (HTM, WHO RO, funding agencies, countries). This applies to TDR's own portfolio of future priorities and to that of stakeholders. TDR's engagement in this area ensures that its future priorities engage key stakeholders in disease endemic countries in setting the research agenda and ensuring research reflects their needs as well as guides the stakeholder engagement. Two key areas are identified: (1) implementation/operations research in the area of control of infectious diseases of poverty and (2) research capacity strengthening. Additional areas requiring priority setting and gap analysis may also be identified (e.g. implementation research needs to address infectious diseases of poverty in maternal and child health – linking MDGs 4, 5 and 6).

Design and methodology: Review of literature including reports and strategies of other agencies.

Stakeholder interviews and potential workshops to inform design and agree final priorities.

Approach to ensure quality: Application of good practice in priority setting - see World Health Report 2013

Significant risk 1:	Failing to clearly define the need for such priority setting processes
Actions to mitigate:	Engagement with stakeholders - feedback from donors e.g. ESSENCE group.
Risk status:	On track
Significant risk 2:	Lack of take up of the recommendations from gap analysis to reshape research and capacity strengthening portfolio of TDR and others.
Actions to mitigate:	Ensure engagement from design through to identification of recommendations
Risk status:	On track
Estimated leverage description:	
Estimated 2018-19 (\$S)	

ER 2.2.2 Capacity strengthening to bring research evidence into policy (R&D Funding)

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Rob Terry

TDR staff involved: Rob Terry, Elisabetta Dessi, Dermot Maher, Piero Olliaro, Florence Fouque, Garry Aslanyan and other team members

Number of partners/staff/consultants:

Synergy with other TDR work stream(s): Focus on building capacity in the methods and approaches to manage research evidence to inform policy is key in demonstrating the relevance of TDR supported research. In addition, ensuring access to other research outputs including publications and data i

Funding sources: 50% undesignated funds 50% designated funds

Partners: For knowledge uptake WHO EVIPNet program will be used as primary partners, including their regional networks. In addition, AHPSR, WHO HTM, Dignitas International (Canadian NGO) other research programs, WHO Ros. External funding agencies interested in evid

Review mechanism: RCS/KM Scientific Working Group (SWG) and peer reviewers

WHO Region(s): Global **Country(ies):** Focus on LICs aligned with priorities in TDR research teams. For SORT IT AMR: Ghana, Uganda, Myanmar, Viet Nam, Nepal, Colombia

Diseases: For data sharing: Ebola, Schistosomiasis, malaria, TB and HAT. For SORT IT AMR those priorities identified by countries.

Start date: 01-Jan-2018

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	
Roles and responsibilities of each partner are complementary	Yes	
Coordination and decision-making are transparent	No	
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$300,000	\$100,000	\$200,000
US\$ 50M budget	\$500,000	\$200,000	\$300,000
Expenditures and encumbrances	\$25,210	\$25,210	\$ 0
Balance	\$274,790	\$74,790	\$200,000

Section III. Objectives and results chain

Objectives: TDR-research has relevance to country priorities, the research is used by other researchers, programme managers, communities and policy makers to influence their behaviour, practice and policies.

To achieve this requires a comprehensive knowledge management approach to ensure research is undertaken in line with best practice. The research needs to be openly disseminated and systems put in place to ensure managed sharing of data, reagents and research tools.

The appropriate ethical, technical and political challenges need to be appropriately addressed and researchers supported with training and infrastructure where necessary to encourage open innovation. Evidence must be synthesized and translated into other media to enable its communication and translation into new recommendations, guidelines and policies which in turn must be translated into action through implementation research. Existing approaches, such as the EVIPNet, open access publishing and novel mechanisms to fund R&D need to be supported and applied and new approaches need to be developed.

Objectives updated:

ER outcome: KM training opportunities will be provided through workshops, online materials and support for TDR researchers in the areas of:

- Open innovation and new models of collaboration
- Data management and sharing
- Research dissemination and maximizing research uptake

Support for testing new forms of open innovation, infrastructure knowledge management approaches will be evaluated for what works and why and new approaches will be developed through commissioned research.

LMICs will be supported to develop research synthesis and policy briefs on issues related to infectious diseases of poverty, integrating TDR research activities (where appropriate) and convene decision makers to assess options for public health policy change.

- LMICs recognize and utilize the value of implementation research in their health systems.

Progress made towards outcome:

Output 1: Methodology developed and/or adapted from existing approaches to enable appropriate generation of translation mechanisms.

Indicator: - At least 4 workshops/training events held
 - 2 report/publications on knowledge management methodology
Target date: 31-Dec-2019
Related objectives: All
Progress status: On track
Progress description: One methodological workshop held with EVIPNet members to share good practice and explore how to best integrate evidence synthesis with data

Output 2: LMICs lead on the development of systematic reviews, research synthesis and policy briefs on issues related to infectious diseases of poverty. Where appropriate work with existing TDR supported research.

Indicator: - At least 4 evidence to policy reports and briefs finalized and published
Target date: 31-Dec-2018
Related objectives: All
Progress status: Completed
Progress description: Established knowledge platform in MoH Malawi in partnership with Dignitasis International - 6 x policy briefs published. MoH piloting one of the policy options to integrate hypertension screening into HIV clinics.

Output 3: Data sharing 1) support for capacity building and 2) development of policy.

Indicator: - At least 2 data sharing initiatives supported and
 - At least 2 policy documents published.
Target date: 31-Jan-2019
Related objectives:
Progress status: On track
Progress description: By 2019, at least two data sharing initiatives supported: TB clinical trial data and Ebola data platform are now both live.

Output 4: NEW: Embed knowledge management in the new SORT IT AMR programme to enable evidence informed decision making to combat anti-microbial resistance.

Indicator: Creation of policy briefs based on the outputs from the operational research supported.
Target date: 31-Dec-2019
Related objectives:
Progress status: On track
Progress description: Programme will begin in the first quarter of 2019.

Changes to outcomes/outputs:

Approach to ensure uptake: The adaptation of existing approaches e.g. EVIPNet method is to ensure policy makers, researchers and knowledge brokers are brought together and work jointly on generating the policy. Uptake is more of a challenge, but this collaborative development shou...

Uptake / use indicator: Citation, surveys, tracking changes in funding patterns, changes in clinical intervention approaches.

Target date: 31-Dec-2018

Indicator status: On track

Publication plan: Reports of the methodology and academic paper as appropriate.

Publication of the policy briefs suited to the local context, language etc.

Publication on new open innovation approaches and their impact / improvement in the R&D processes evaluated.

Open access publications: Terry RF, Littler K and Oliaro PL. Sharing health research data – the role of funders in improving the impact [version 1; referees: 3 approved with reservations]. F1000Research 2018, 7:1641. (<https://doi.org/10.12688/f1000research.16523.1>)

Approach to ensure gender and geographic equity: Ensure policy brief are selected with gender balance as one of the selection criteria.

Section IV. Concept and approach

Rationale: Continuous focus on translating evidence into policy is key in demonstrating the relevance of TDR's activities. The new evidence generated by research funded by or in collaboration with TDR, needs to inform the most effective delivery of disease control tools, strategies and policies. This will engage new stakeholders in countries such as policy-makers and programme managers.

Design and methodology: There are a large number of existing approaches to knowledge translation e.g. EVIPNet, SORT-IT, WHO guidelines, work of the Alliance HPSR, Cochrane Collaboration, Norwegian Knowledge Centre etc. Less established for implementation research. Therefore needs consultation of experts and possibly a concept paper to design a 'new' approach. Methodology might need piloting in a workshop but existing approaches e.g. EVIPNet can also be utilized to ensure progress is made with what we have as new approaches emerge.

Approach to ensure quality: Use of SWG and expert peer review.

Significant risk 1: Failing to develop good collaboration with EVIPNet and use their regional networks.

Actions to mitigate: Involve all stakeholders from the beginning take an open minded approach so not wedded to just the EVIPNet methods.

Risk status: On track

Significant risk 2: Lack of take up of the recommendations from reports/briefs by policy makers and programme managers.

Actions to mitigate: Problem endemic in clinical practice globally so the key is involving stakeholders from the beginning and identifying key, high priority areas where translation is needed and asked for by the disease endemic countries to ensure a strong pull for the work.

Risk status: On track

Significant risk 3: Resistance to data sharing from within research community.

Actions to mitigate: Take a stepwise approach. Start with a closed, managed system of sharing to build trust before moving to more open approaches.

Risk status: On track

Estimated leverage description:

Estimated 2018-19 (\$\$)

ER 2.3.1 Collaborative networks and Global Health Initiatives (GHIs)

Team: Research Capacity Strengthening and Knowledge Management

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Garry Aslanyan

TDR staff involved: Elisabetta Dessi

Number of partners/staff/consultants: 2 consultants (for a specific period)

Synergy with other TDR work stream(s): TDR partnerships, resource mobilization and advocacy, Global Engagement, Research Capacity Strengthening and Knowledge Management (RCS-KM) and Research

Funding sources: Undesignated funds

Partners: Major international donors and funders of research and RCS

Review mechanism: ESSENCE Steering Committee

WHO Region(s): Global

Country(ies): Global, with focus in Africa

Diseases: all TDR related diseases and beyond

Start date: 01-Jan-2009

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Criteria indicators

		Observation of current status
Objectives are still aligned to TDR criteria	Yes	Coordinating funder resources help TDR achieve its own results
Roles and responsibilities of each partner are complementary	Yes	These are guided by an agreed upon TOR - Essentials of ESSENCE
Coordination and decision-making are transparent	Yes	Monthly meetings of the Steering Committee, annual meetings of members
Visibility of TDR and all partners/collaborators is highlighted in all documents	Yes	Every document refers to TDR as the secretariat of the initiative

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$200,000	\$200,000	\$ 0
US\$ 50M budget	\$350,000	\$350,000	\$ 0
Expenditures and encumbrances	\$148,337	\$148,337	\$ 0
Balance	\$51,663	\$51,663	\$ 0

Section III. Objectives and results chain

Objectives: To engage funding agencies in policy dialogue in order to harmonize principles, policies, standards and practices related to research and capacity building in LMICs. Based on articulated TDR rules and scope of Global Engagement with key global health and global health research issues to inform TDR portfolio

Objectives updated:

ER outcome: Funding principles, policies, standards and guidance documents are agreed and implemented by partners. TDR is partnering engaging with key GHIs and is seen as a key player in global health agenda.

Progress made towards outcome: The funding agencies made progress in policy dialogue on harmonizing their approach to funding. The International Vaccine Research Taskforce convened by World Bank and CEPI have recommended that ESSENCE develops a review mechanism on how the investments in clinical research capacity by funders can be reviewed. ESSENCE is working on the proposed mechanism development. TDR engaged with UNICEF and WHO to ensure research priorities are included in the new framework on Primary Health Care declared by countries at the meeting in Astana. TDR has worked with HRP and Alliance on Health Policy Research.

Output 1: 2 tools and reports have been used to inform policy and/or practice of global/regional stakeholders or major funding agencies

Indicator:	Number of harmonized principles, policies, practices introduced and adapted by funding agencies and LMIC researchers/research institutions.
Target date:	31-Dec-2019
Related objectives:	1
Progress status	On track
Progress description:	ESSENCE good practice document on implementation research process has completed the survey of ESSENCE members. The good practice document on costing will be updated and ToRs have been developed for the revision

Output 2: Funding agencies will continue to engage in annual policy dialogue between each other and with LMICs institutions and pilot countries.

Indicator: Number of pilot countries that initiate dialogue between funding agencies and researchers/research institutions.
Target date: 31-Dec-2019
Related objectives: 1
Progress status On track
Progress description: The annual meeting of ESSENCE members took place in Ottawa, Canada, hosted by IDRC. A number of issues were included on the agenda, including implementation research and research management.

Output 3: LMIC capacity in key areas such as research management, M&E and other will be strengthened in close collaboration with funding agencies.

Indicator: Number of LMIC researchers trained in good practice fields
Target date: 31-Dec-2019
Related objectives: 1
Progress status On track
Progress description: The research and innovation management associations from East, South and West Africa had workshops that included key areas such as research management and M&E, based on the good practices developed by ESSENCE.

Output 4: Case examples of TDR's research, RCS and KM activities benefit and are shaped by global health research and global health agenda.

Indicator: TDR activities use ESSENCE documents as reference
Target date: 31-Dec-2019
Related objectives:
Progress status On track
Progress description: TDR provided examples and was included in the joint workshop TDR, HRP and AHPSR had at the Global Symposium on Health Systems Research in Liverpool, UK

Changes to outcomes/outputs: The funding agencies made progress in policy dialogue on harmonizing their approach to funding. The International Vaccine Research Taskforce convened by World Bank and CEPI have recommended that ESSENCE develops a review mechanism on how the investments in clinical research capacity by funders can be reviewed. ESSENCE is working on the proposed mechanism development. TDR engaged with UNICEF and WHO to ensure research priorities are included in the new framework on Primary Health Care declared by countries at the meeting in Astana. TDR has worked with HRP and Alliance on Health Policy Research.

Approach to ensure uptake: All good practice documents will be field tested and consulted as part of their development. This will ensure quality of update. The update will include wide dissemination of the good practice documents among the ESSENCE agencies. In addition, reviews o

Uptake / use indicator: Good practice documents are used by the agencies and policies are changed

Target date: 31-Dec-2017

Indicator status: On track

Publication plan: At least one good practice document will be published each year

Open access publications: All ESSENCE documents are open access

Approach to ensure gender and geographic equity: Gender, geographic equity and vulnerable populations are considered in the shaping and helping shape of funding agencies policies through ESSENCE.

Section IV. Concept and approach

Rationale: The Global Engagement role of TDR and its successful implementation ensured that TDR remained the choice for the Secretariat by members of ESSENCE. There is a continuous need to influence funding agencies policies and practices to support TDR's research, RCS and KM priorities and activities and in addition to engage with new stakeholders for the same purpose. Global Engagement will not be done on ad hoc basis and will be preceded by careful analysis of need and scope of such engagement. Similarly, TDR will need to continuously engage with GHIs to allow the Programme to advocate for policy influence in the areas closely linked to TDR's mandate. Having conducted a detailed analysis of the landscape in its first phase, TDR will work with relevant GHIs as a strong technical, convening and policy partner.

TDR will need to continue positioning itself in the global health architecture, especially at the time of the post-2015 environment where there will be a need to maintain focus on research on infectious

diseases of poverty in line with the increased attention to universal health coverage.

Design and methodology: For ESSENCE, regular identification of critical issues of common interest and systematic consultation between members and stakeholders to develop good practice documents, including: (1) identification of the issue requiring

funding agencies' collaboration, (2) analysis and survey of various information related to the issue (3) drafting good practice document (4) organizing a consultation to test the content of the document (5) developing final draft and getting endorsement of the ESSENCE members (6) launch and dissemination of the document (7) monitoring of update and evaluation. For GHIs, (1) interface with like-minded GHIs based on the results from the analysis, (3) gather up to-to-date and clear understanding of portfolios, activities and opportunities, (4) identify joint funding priorities, (5) implement joint project (6) evaluate achievements

Approach to ensure quality: Documents are consulted and peer reviewed, training or other material reviewed and piloted.

Meeting and consultations include external independent stakeholders, including STAC, SC and JCB

Significant risk 1: Perception that the needs of the LMICs are not well represented in the decision making process of ESSENCE

Actions to mitigate: Additional efforts to engage LMICs in priority activities and dissemination

Risk status: On track

Significant risk 2: Requires intense and proactive TDR staff time and effort for success of ESSENCE

Actions to mitigate: Staff is available and time allocated

Risk status: On track

Significant risk 3: Inadequate prioritization of cost opportunities for engagement with certain GHIs

Actions to mitigate: Closely following rules of engagement that will be developed

Risk status: On track

Significant risk 4:

Actions to mitigate:

Risk status:

Estimated leverage description: ESSENCE member funding agencies will support specific areas of joint interest to the agency

and the network. GHIs will be requested to co-fund some of the activities

Estimated 2018-19 (\$\$) \$100,000

ER 2.3.3 TDR Global - the community of former trainees, grantees and experts

Team: Director's office - Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER status update: On track

Manager's Name: Beatrice Halpaap

TDR staff involved: Michael Mihut, Elisabetta Dessi, Pascal Launois, Mariam Ottmani, Jamie Guth

Number of partners/staff/consultants: 0.25

Synergy with other TDR work stream(s): Portfolio and Programme Management, Research Capacity Strengthening, Research for Implementation

Funding sources: UD

Partners:

Review mechanism: Ad-hoc external advisory group made of former TDR grantees, trainees and experts, meeting annually and consulting via email several times a year.

WHO Region(s): Global

Country(ies): Global

Diseases: Global

Start date: 01-Jan-2018

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives No

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information

Criteria indicators

		Observation of status
Objectives are still aligned to TDR criteria	No	
Roles and responsibilities of each partner are complementary	No	
Coordination and decision-making is transparent	No	
Visibility of TDR and all partners/collaborators is highlighted in all documents	No	

Section II. Budget 2018-2019

	UD + DF	UD	DF
US\$ 40M budget	\$300,000	\$300,000	\$ 0
US\$ 50M budget	\$500,000	\$500,000	
Expenditures and encumbrances	\$96,220	\$96,220	\$ 0
Balance	\$203,780	\$203,780	

Section III. Objectives and results chain

- Objectives:** 1. Tracking the careers of current and former grantees, trainees and expert advisors
2. Map specific expertise
3. Enhance collaborations that include current and former grantees, trainees and expert advisors

Objectives updated:

- ER outcome:** 1. The impact of TDR grants on the careers of its grantees, trainees and expert advisors can be adequately assessed
2. Identifying desired capacity in a field and a geographical region is facilitated
3. New collaborations, networks and partnerships that include former or current TDR grantees, trainees and expert advisors are created

Progress made towards outcome: We mapped TDR Global members' geographical representation across three periods of time, identifying the countries that have the highest number of members (important for country mobilization initiatives). We have 55 detailed profiles of TDR alumni (grantees, trainees, expert advisors) published on TDR's website, as part of various initiatives. We shared with TDR collaborating institutions (RTCs and Universities) the list of TDR Global members and their availability to support various forms of engagement and collaboration.

Output 1: A user-friendly, online platform that hosts the profiles of current and former grantees, trainees and expert advisors of TDR

Indicator:	Platform is functional and improvements are done regularly as needed
Target date:	31-Dec-2019
Related objectives:	
Progress status	On track
Progress description:	Platforms functions as expected

Output 2: Community engagement activities that foster collaboration and networking are implemented in line with the Community Engagement Strategy

Indicator: Activities that engage the TDR Global community are taking place and communities of interest are created at grassroots level

Target date: 31-Dec-2019

Related objectives:

Progress status On track

Progress description: We piloted seven methodologies for community engagement in support of several initiatives. A 3-month long gender mobilization initiative was rolled out and involved live interactive webinars, problem-solving workshops and discussions on social platforms. Three TDR Global talks were released by a social innovation project. A country mobilization initiative and piloting the ambassador programme started in Zambia. The crowdsourcing tool for gathering ideas and prioritizing was also used in two projects. Results will be analysed and lessons learnt discussed and applied to future engagement activities.

Output 3: A survey that assesses the career progress of former trainees and grantees

Indicator: The survey collects information that helps TDR identify the factors supporting career growth and equity (gender and socio-economic)

Target date: 31-Dec-2019

Related objectives:

Progress status On track

Progress description: In the process of being designed. Will be carried out in 2019.

Changes to outcomes/outputs: We mapped TDR Global members' geographical representation across three periods of time, identifying the countries that have the highest number of members (important for country mobilization initiatives). We have 55 detailed profiles of TDR alumni (grantees, trainees, expert advisors) published on TDR's website, as part of various initiatives. We shared with TDR collaborating institutions (RTCs and Universities) the list of TDR Global members and their availability to support various forms of engagement and collaboration.

Approach to ensure uptake: The main challenge, identified since the design phase of TDR Global, has remained community engagement and uptake by users. The platform has been adapted to some extent to be more user-friendly; automated tools for publications search and validation have

Uptake / use indicator: Champions from TDR Global community engaging other users on topics of interest and creating new collaborations.

Target date: 31-Dec-2019

Indicator status: On track

Publication plan: 1. Publication on the lessons learned from the first ESF career survey applied to TDR trainees
2. Publication on the value of the career progress survey, upon analysis of the second survey
3. Publication on the mapping of the collaborations between insi...

Open access publications:

Approach to ensure gender and geographic equity: The advisory group is made in equal proportion by women and men. One of the first topics of interest is gender equity and helping women researchers in their careers. The first topic of a global mobilization was gender equity and supporting women's career in science. This continues to be a topic that attracts interest and is in line with TDR's core value of gender equity.

Section IV. Concept and approach

Rationale: Over its 40 years in existence, TDR has built and supported a vast pool of human resources to address infectious diseases of poverty through research and training. This is the “TDR Global” community. The goal of the TDR Global initiative is to harness this global community in engendering new and expanded collaborations for research and training on infectious diseases of poverty.

Design and methodology: TDR Global is in the process of mapping expertise of TDR Global members, consisting of recipients of TDR training or research grants as well as experts worldwide who have served in TDR committees. This first phase involves the development of a web-based system, which will feature profiles of TDR community members, updates on the careers of TDR grantees, and use the virtual platform as a basis for engaging community members into new collaborations, e.g. to create mentorship programmes, identify expert reviewers, engage in online consultations or discussions on key thematic areas, and catalyse potential research partnerships across the globe. The platform under finalization will thrive only if there is a vibrant TDR Global community that drives it. Thus the second phase of TDR Global is to develop an effective strategy to engage the TDR community in attractive and effective ‘alumni initiatives’. For this important phase, a consultative group has been formed to generate innovative ideas for bringing together the TDR Global community and keeping members and institutions engaged in TDR activities.

Approach to ensure quality: An external advisory group is reviewing the plans, the activities and the implementation of the TDR Global project.

Significant risk 1: TDR community do not populate their data into TDR Global which may impact the ability i) to assess the impact of TDR's grants on their careers; ii) of platform users for specific collaborations

Actions to mitigate: Make login and registration in the system mandatory for new TDR grantees / trainees and strongly encourage TDR committee members; Design the platform so that most data can be easily downloaded by TDR, or incorporated by TDR community; Provide value to TDR Global community by developing community engagement strategy and attracting them to the site, updating their profiles, and using and sharing the profiles; Ensure registration of TDR community with ORCID; Identify with TDR community opportunities, incentives and platforms for mentoring and collaborations; Develop reports allowing users to map expertise manually in addition to the automatic mapping done by Profiles: experts by country, region, gender;

Risk status: On track

Significant risk 2: The platform requiring extensive human resources may affect its sustainability

Actions to mitigate: Develop a platform that TDR can manage with existing human resources (as per RFP); Identify resources that can work on this projects in an efficient manner (e.g. RTC, universities, other)

Risk status: On track

Significant risk 3: TDR's income dropping may affect the ability to maintain the platform as developed

Actions to mitigate: Develop a clear budget with scenarios; Explore financing options to sustain TDR Global system; negotiate to have non-essential items remove to reduce cost of maintenance and updates.

Risk status: On track

Significant risk 4: Decentralising TDR Global to regional training centres may affect its sustainability and quality

Actions to mitigate: TDR Global is included in RTCs sustainability plan and performance assessment framework, which are currently under development; At each RTC, a responsible officer with appropriate skill set appointed; Centrally, In TDR regular monitoring and quality ass

Risk status: Completed

Estimated leverage description: Leverage is expected through (i) voluntarily participation of experts and partners in the development of the system and (ii) contribution from TDR alumni and other experts in providing technical support to TDR activities (mentorship, external review of TDR activities, etc.)

Over a period of 10 years leverage amount is estimated at a level of \$ 2.5 M (about 35 advisory groups (4 members in average)spending about 3 days per year i.e. 420 days per year and 4,200 days over 10 years at \$600 per day)

In 2018-2019 leverage amount is estimated at a level of \$60,000 (100 days of experts and volunteers time at \$600 per day)

Estimated 2018-19 (\$\$) \$60,000
