

# The Global Health Protection Programme (GHPP)

Seven years of projects for global health security



**GHPP** Global Health  
Protection Programme

Supported by:



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Participants in an Emergency Medical Teams (EMTs) workshop share ideas in the EMT supply centre of the German humanitarian aid organisation Malteser International.



# The Global Health Protection Programme

## Germany's contribution to global health security



*Every human being has the right to the highest individually attainable standard of physical and mental health. Germany is committed that this human right is realised – worldwide.*

— Global Health Strategy of the German Federal Government, 2020

Recent years have witnessed a wave of international health crises. The outbreak of Ebola virus disease in West Africa in 2014-2015 and the COVID-19 pandemic demonstrated the threat that epidemics and pandemics pose to the global population's health: they cause massive human suffering, push health care systems worldwide to their limits and hold vast potential to wreak economic damage. Once again, the recent crises underlined the fact that the challenges of global health in an interconnected world can only be overcome through close partnerships and transnational cooperation.

With the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda, the United Nations has responded to the challenges of our times and set itself the goal of enabling people throughout the world to live in dignity. SDG 3 'Ensure healthy lives and promote well-being for all at all ages' has acquired special significance in the context of past health crises: health is not just a global human right; it is also a basic prerequisite for social cohesion and prosperity across the whole of society.

At the same time, awareness of intersection between human and animal health and a healthy environment has been growing in recent years. Over 60 per cent of all infectious diseases in humans are transmitted by animals (zoonoses). Current research findings clearly demonstrate that changing environmental conditions are further increasing the risk of pathogens spreading to humans. The World Health Organization (WHO) classifies emerging infectious diseases as one of the greatest

threats to global health. Interdisciplinary and cross-sectoral approaches such as One Health therefore play an essential role in reducing health risks.

Well-functioning public health systems and structures (PH systems) are needed worldwide to strengthen health security in the long term. Such systems make a decisive contribution to containing local outbreaks and preventing the emergence of national and international crises. Amongst other things, PH systems are tasked to

- minimise and even prevent health risks
- strengthen crisis preparedness
- identify risks at an early stage, and
- manage health crises.

Germany is continuously expanding its international commitment to strengthening global health security. The Global Health Protection Programme (GHPP), which was initiated by the German Federal Ministry of Health (BMG), plays a crucial role in this. Together with their partners, more than 50 projects on three continents strengthened global health security between 2016 and 2022.



# Timeline

**2014**

Initial considerations within the BMG on how the authorities within its remit as well as the institutes of the Leibniz Association can increasingly contribute their expertise in the Global South.

**2015**

In response to the Ebola epidemic in West Africa, heads of government jointly decide at the G7 summit in Schloss Elmau to step up their commitment to strengthening health care systems worldwide.

The German Epidemic Preparedness Team (SEEG) is established as a joint initiative by BMZ and BMG.

**2016**

The first phase of the GHPP starts with initially 15 projects from BfArM, the BNITM, the PEI and RKI.

**2017**

Germany continues to emphasise international health policy during its G20 presidency.

The German Bundestag anchors the international orientation of the RKI – the GHPP's largest recipient of funding – in the Infection Protection Act (IfSG).

**2019**

There is strong demand among partners abroad for the expertise of the German institutes involved in the GHPP. The number of projects receiving funds from the GHPP increases to 24.

The FLI and FZB contribute their special expertise to independent projects for the first time.

**2020**

The number of GHPP projects increases to 35.

The DZK comes on board as a partner from Germany.

**2021**

In response to the COVID-19 pandemic, the GHPP's Corona Global funding track is established under which BMG approves an additional 17 projects to support the fight against the pandemic.

**2022**

As part of the German G7 Presidency, the Pact for Pandemic Readiness is concluded to strengthen global pandemic preparedness and response. GHPP projects make an immediate contribution to the implementation of these agreements.

**2023**

The second phase of the GHPP starts with around 40 new and follow-on projects.





*We want to assume global responsibility. In Germany, we have a diverse and high level of public health expertise in Germany. Health crises in recent years clearly show that we need to make even better use of this expertise internationally.*

— Dr Christophe Bayer (BMG)

## Time to take stock

Seven years into the Global Health Protection Programme (GHPP) – at the end of its first phase – it is time to look back on what has been achieved.

This report provides an overview of the GHPP, its actors, partners and, above all, its projects. It aims to demonstrate the contribution the programme has made during this period to preventing and responding to outbreaks, epidemics and pandemics and how these measures have been implemented in practice.

The report starts with the programme's framework, before providing an overview of the supported projects and their activities over the years in the chapter 'The GHPP – Facts and Figures'. The report revolves around the projects themselves, which are described under 'The 55 GHPP projects at a glance'. Due to the large number and diversity of projects, this section focuses on key elements of the measures, their objective as well as selected activities. A detailed profile of the individual projects, including information on the project partners, can be found on the [GHPP's website](#). The final section reflects on the past seven years, and provides a brief outlook as the programme continues.

The glossary on page 60 explains the most frequently used technical terms, for readers less familiar with the area.

## History and aim of the GHPP

The GHPP was established by the Federal Ministry of Health as a means of contributing the key expertise and knowledge of specialised German institutions in the field of health protection internationally and to reinforce Germany's commitment to global health security.

The programme aims to strengthen health systems at national, regional and international level, to support project countries worldwide in preventing and managing epidemics and pandemics. The projects build long-term partnerships and strengthen international cooperation and the exchange of knowledge between public health actors from Germany and partner organisations from more than 30 countries. They support the development and implementation of country-specific approaches as well as the expansion and harmonisation of international structures and processes.

The projects also address diverse challenges arising from the needs of project countries and organisations. For example, they focus on the national surveillance of diseases and what structures and processes are needed to ensure the availability, safety and effectiveness of medical devices. While some projects are improving cooperation between human and veterinary medicine to prevent zoonoses in line with the One Health approach, others are strengthening international operational capacities that provide rapid support for new outbreaks on the ground.



*The GHPP facilitates long-term partnerships between public health institutes from Germany and from project countries. This collaboration in partnership and the long-term strengthening of public health systems are the most important things for me – because this is the only way international health protection can succeed.*

— Prof Dr Johanna Hanefeld (RKI)



The GHPP projects complement development cooperation measures of the Federal Ministry for Economic Cooperation and Development (BMZ), international research funding provided by the Federal Ministry of Education and Research (BMBF) and humanitarian aid provided by the Federal Foreign Office (AA). The programme is therefore a strategic part of Germany's international commitment to global health, the priorities of which are set out in the [Global Health Strategy of the German Federal Government](#).

### The GHPP's strategic framework

The Global Health Strategy outlines the Federal Government's commitment to international health policy and to achieving the health-related SDGs of the 2030 Agenda. It aims to make a significant contribution to improving global health by 2030 and sets out the government's specific priorities in areas where Germany can make the best possible use of its political commitment, expertise and skills. The GHPP is one of the pillars for realising these priorities.

Source: [www.bundesgesundheitsministerium.de/en](http://www.bundesgesundheitsministerium.de/en)

(BNITM) and the Research Center Borstel, Leibniz Lung Center (FZB) – are institutions of the Leibniz Association that receive half of their basic funding from the BMG. Other participating institutes are the Friedrich-Loeffler-Institut (FLI) – an independent higher federal authority in the portfolio of the Federal Ministry of Food and Agriculture (BMEL) and the veterinary counterpart to the RKI – and the German Central Committee against Tuberculosis (DZK).

The programme started out in 2016 with 15 projects, in response to the Ebola epidemic. Due to the growing importance of global health, the GHPP expanded to more than 35 projects in the following years. The BMG provided funding for an additional 17 projects in 2021, in response to the specific challenges posed by the COVID-19 pandemic in project countries. This means that more than 50 projects have been funded and implemented during the first phase.

All funded projects contribute to a joint monitoring system that is continuously developed and they regularly report on their measures on the [GHPP's website](#).

### How the programme works

The GHPP is an initiative of the BMG, which is responsible for programme steering. The GHPP Secretariat supports coordination and implementation at the operational level. During phase I of the GHPP from 2016 to 2021, the Secretariat was based at the Robert Koch Institute. The Deutsche Gesellschaft für Internationale Zusammenarbeit gGmbH (GIZ) took on this role in 2022. A group of representatives from the participating specialist institutes in Germany advises on the programme's technical and methodological design.

Seven specialised public health institutes from Germany implement the projects based on their area of expertise. Three of these – the Robert Koch Institute (RKI), the Paul-Ehrlich-Institut (PEI) – and the Federal Institute for Drugs and Medical Devices (BfArM) – are authorities within the remit of the BMG, while two others – the Bernhard Nocht Institute for Tropical Medicine



## Priority areas of phase I

Protecting global health is a complex challenge that requires action at different levels and in a number of areas. The six priority areas of the programme's first phase addressed selected challenges and were aligned with the German Government's Global Health Strategy. They reflect the core competences of the participating institutes in Germany. The following section

provides an insight into these six thematic priority areas and presents the associated projects. Any projects that have been added since 2020 in response to the COVID-19 pandemic are described in a separate sub-section.

# Topics

### Managing health crises together

Making expertise available 24/7 worldwide to combat disease outbreaks

### Building health crisis preparedness

Supporting implementation of WHO's International Health Regulations (IHR) worldwide

### Acting globally

Strengthening global health governance and promoting international networking

### Generating evidence for health measures

Closing research gaps worldwide and supporting young researchers

### Preventing hospital-acquired infections

Strengthening hygiene systems worldwide and combating antibiotic resistance

### Securing the quality of medicines

Improving the safety of blood and blood products, medicines and vaccines worldwide



# Specialist institutes in Germany



## Bernhard Nocht Institute for Tropical Medicine (BNITM)

The **Bernhard Nocht Institute for Tropical Medicine (BNITM)** is Germany's largest institution for research, teaching, advice and care in the field of tropical and emerging infectious diseases. The BMG pro-

vides half of the basic funding for the BNITM, member of the Leibniz Association. The Institute conducts modern laboratory research on the biology of pathogens, their reservoirs and vectors, with clinical research on tropical and travel medicine, field research, disease control and implementation research in project countries. The BNITM is a WHO Collaborating Centre for Arboviruses and Haemorrhagic Fever Viruses, a national reference centre for tropical infectious agents and maintains numerous international cooperation arrangements with universities, research institutions and organisations. As part of the GHPP, the BNITM is primarily involved in projects to combat infectious diseases.



## Federal Institute for Drugs and Medical Devices (BfArM)

The **Federal Institute for Drugs and Medical Devices (BfArM)** is a higher federal authority with responsibility for ensuring drug and patient safety in Germany. The BfArM reports to the BMG and has around 1,350

employees. Its main tasks include the licensing of medicinal products, the risk assessment and evaluation of medicinal products and medical devices, pharmacovigilance, control of the legal trade in narcotic drugs, and research in the above specialist areas. As part of the GHPP, the BfArM is involved in projects that strengthen the capacities of relevant regulatory authorities in the project countries.



## Friedrich-Loeffler-Institut (FLI)

The **Friedrich-Loeffler-Institut (FLI)** is the German Federal Research Institute for Animal Health and is an independent higher federal authority in BMEL's portfolio. The FLI works and conducts research on the health and welfare of food-producing

animals and the protection of humans from zoonoses. Internationally, the FLI cooperates with various international organisations, universities and research institutes, participates in projects and missions as well as in different committees. Within the GHPP, it implements projects in collaboration with partners from veterinary and human medicine, particularly under the umbrella of the One Health approach.



## German Central Committee against Tuberculosis (DZK)

The **German Central Committee against Tuberculosis (DZK)**, as a centre of competence for tuberculosis, monitors the development of the disease at national and international level. It carries out educational,

advisory and PR work and prepares recommendations for action and information material. The DZK also holds lectures and courses at universities and health authorities and supports national and international research projects. Within the GHPP, the DZK supports projects for cross-border tuberculosis surveillance and control.





### Paul-Ehrlich-Institut (PEI)

The **Paul-Ehrlich-Institut (PEI)** is the German federal institute for vaccines and biomedical drugs and is part of the BMG. It examines and evaluates the risk-benefit ratio of vaccines and biomedical drugs as well as the performance of high-

risk in vitro diagnostics (IVDs). The PEI also conducts its own experimental research and method development in the field of biomedicine. Its regulatory tasks include the authorisation and approval of clinical trials, state batch testing and release, the recording and assessment of adverse drug reactions and incidents involving IVDs (IVD vigilance) and the initiation and coordination of risk reduction measures (pharmacovigilance). As part of the GHPP, the PEI assists drugs authorities and organisations in sub-Saharan Africa in developing and expanding pharmaceutical regulation.



### Robert Koch Institute (RKI)

The **Robert Koch Institute (RKI)** is the national public health institute for Germany and part of the BMG's portfolio. The RKI's objective is to protect the population from diseases and improve their health status.

Scientists at the institute collect data on noncommunicable diseases such as diabetes and cancer, infectious diseases and new biological threats. Based on this, the institute develops specific recommendations and preventative intervention strategies. RKI's work rests on two pillars: Research that generates data for decision-making, and independent advice for specialists – particularly Germany's public health service and policy-makers. Within the GHPP, the RKI plays a key role in the systematic, partnership-based strengthening of public health systems and international support in the detection and management of disease outbreaks.



### Research Center Borstel, Leibniz Lung Center (FZB)

The **Research Center Borstel (FZB)** is the lung research centre of the Leibniz Association and receives half of its basic funding from the BMG.

The focus is on chronic inflammatory lung diseases such as asthma, chronic

obstructive pulmonary disease (COPD) and allergies as well as tuberculosis and other infection-related inflammations of the lung. The FZB has an international network and – in the field of infectious lung disease – is particularly well known for its work on diagnosing drug-resistant tuberculosis, surveillance and the testing of new treatments. It is home to the National Reference Center for Mycobacteria as well as a supranational reference centre of the WHO. Within the GHPP, the FZB assists project countries in establishing modern sequencing technologies for the rapid diagnosis and control of pathogens.

# The GHPP – Facts and Figures

2016 – 2022

Over the course of seven years, the institutes have carried out 55 projects on a variety of themes and in different regions, and with varied methodological approaches, funding levels and durations. As a common denominator the projects all contribute to the GHPP's overarching objective of strengthening public health systems.

## Seven institutes

7



BfArM, BNITM, DZK,  
FLI, FZB, PEI, RKI

## Number of projects

55

Phase I



## Projects per institute

5

BfArM

3

FLI

2

PEI

8

BNITM

3

FZB

34

RKI

1

DZK

\* Due to collaboration between German institutes, one project is counted twice.

## Projects by priority area



7

in building health crisis preparedness



4

in securing the quality of medicinal products



7

in preventing hospital-acquired infections



8

in generating evidence for better health protection



7

in managing health crises together



5

in global action

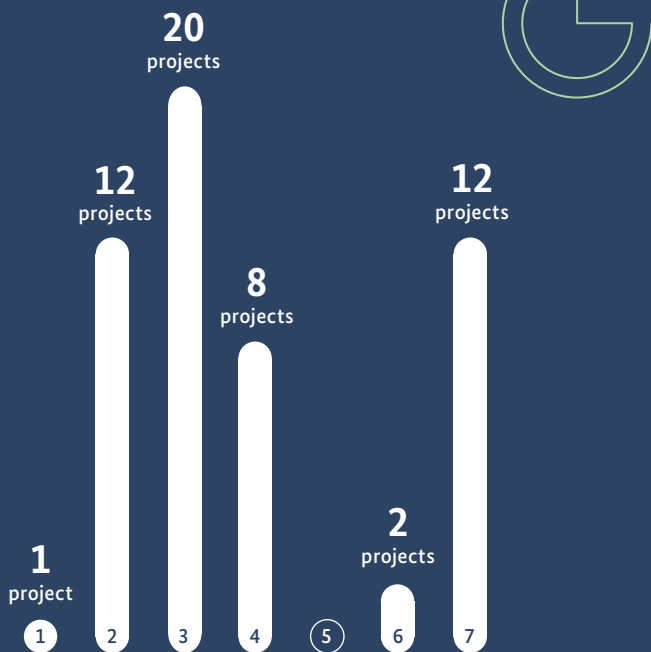


17

in fighting the COVID-19 pandemic worldwide



## Terms (in years)



(the duration of project extensions and immediate follow-on projects has been added to the term of the initial project)

## Budget (in euro)

Total (in euro)

# 84.7 M



Annual budget (in euro)



## Overview of cooperation

**32** Cooperation with WHO country and regional offices and other WHO initiatives

## Number of partnerships with:

**21** Educational institutions/  
universities

**54** Authorities/ministries

**6** International organisations

**80** Public health institutes

**22** Hospitals

**13** Laboratories



## Project countries per priority region

**74** countries in total

**43** Africa

**14** Eastern Europe & Western Balkans

**16** Asia

A significant number of activities are carried out together with the following countries:



# Looking back on the GHPP's work to date

2016 – 2022

During its first phase, which ran for seven years, the programme has achieved many results, making a lasting contribution to global health protection. Through dedicated work and long-standing partnerships, GHPP projects have strengthened health systems through a wide range of activities, along with promoting research and innovation and supporting international cooperation and knowledge transfer between different actors.

## Workshops and training measures



**688** workshops and training measures

For instance on genome sequencing and strengthening drug safety.

**352**  
in project  
countries

**140**  
in Germany

**116**  
virtual/hybrid

**144** training measures

following the **train-the-trainer approach**

This approach enables participants to become trainers that disseminate the knowledge they have acquired in their region, thus contributing to project sustainability.

## One Health approach



**18** projects

used the **One Health approach** to develop solutions at the human-animal-environment interface.

For instance, the project IHR-PVS Toolbox developed a strategy to improve coordination between veterinary and human health services in the fight against rabies.

## Networks and platforms



**68**  
networks

**50**  
platforms

were established or strengthened to promote the sharing of information and data between individuals and/or organisations.

For instance, the project SYSVAC has established a freely accessible, comprehensive database for systematic reviews on vaccinations and vaccine-preventable diseases. This supports project countries in developing national vaccination recommendations and helps to improve vaccination programmes worldwide.



## New rules and standardised processes



**188** new rules and standardised processes were introduced or strengthened.

For example, the VaccTrain project has worked with drug regulatory authorities in the Gambia, Liberia and Sierra Leone to create guidelines that define the regulatory framework for clinical trials and fulfil international, scientific and ethical standards.

## Laboratories

**124**  
laboratories

**5**  
mobile  
laboratory units



received support and equipment from GHPP projects.

Well-equipped laboratories are an important resource for rapid, accurate diagnosis and effective control of disease outbreaks.

For example, the Identification of Emerging Agents (IDEA) project in Sri Lanka provided support by implementing construction measures and making available equipment, reagents and training.

Mobile laboratory units enable tests and examinations to be carried out on site and facilitate a flexible response to new outbreaks.

## Antimicrobial resistance (AMR)

**19** projects

addressed antimicrobial resistance (AMR)

GHPP's DQA is one such project. It ran a quality assurance and quality management training programme with participants from African quality control laboratories, as a contribution to the Global Action Plan on Antimicrobial Resistance.

## Implementation of studies

**139** studies

were conducted in the GHPP projects. They deliver important application-oriented research findings that are aimed in particular at providing actionable evidence for health policy.

A wide range of findings has also been published, for example in an article by AfroLabNet on the Marburg Virus Disease (MVD) in Guinea in the New England Journal of Medicine ('Detection of Marburg Virus Disease in Guinea', 2022), and another joint publication with the D:APS project entitled 'Resurgence of Ebola virus in 2021 in Guinea suggests a new paradigm for outbreaks' in the journal Nature (2021).

## Response to disease outbreaks

**50**  
disease  
outbreaks



**29**  
countries



**13**  
pathogens



GHPP provided support for responding to 50 disease outbreaks in 29 countries caused by 13 different pathogens. This support was provided above all by strengthening local laboratory capacities and assigning project personnel, as well as through the use of mobile laboratory units.

The 55 GHPP projects at a glance

# Priority area: Building health crisis preparedness

## **Supporting the implementation of WHO's International Health Regulations (IHR) worldwide**

In a globalised world, protection against health risks requires international dialogue and coordinated action. WHO's International Health Regulations (IHR) are a binding agreement for all member states to prevent and manage the cross-border spread of diseases. Building operational capacities in the public health system is crucial for preventing pandemics and epidemics. This includes, for example, developing disease surveillance and reporting systems, preparing emergency plans, strengthening laboratory capacities and establishing field epidemiology systems.

To support the implementation of the IHR worldwide, GHPP projects worked together with national public health emergency operations centres (PHEOCs), conducted training on laboratory diagnostics and workshops on infectious disease surveillance, and built national capacities for a rapid response to crises, to name just a few examples. By strengthening local public health systems in this way, GHPP projects helped to protect against global health crises.





Conducting a necropsy to investigate a potential filovirus outbreak in elephants in the Dzanga-Sangha Special Reserve in the Central African Republic.



# TwiniT

## Support for Establishing the Namibia Institute for Public Health



*Our project provides support for establishing the Institute for Public Health in Namibia. This will strengthen the country's capacities to prepare for, prevent and respond to outbreaks, epidemics and pandemics.*

— Dr Christian Winter



Dr Christian Winter



Philomena Ochurus

### How did collaboration in TwiniT come about and what is so special about it?

**Dr Christian Winter:** In 2019, the RKI was asked by the Namibian Government to support the establishment of a national institute for public health. Funding from the GHPP enabled the project to start in January 2020. The institute aims to take on a number of core functions in the area of public health, including epidemic preparedness and response. It will also be responsible for monitoring antimicrobial resistance, infection prevention as well as the area of One Health.

The special feature of our project is that it is based on a long-term institutional partnership that will continue even after the project ends. We believe that our long-term commitment, our strong presence in Namibia and cooperation on an equal footing are key to success.

### Why is cooperation between different actors important in the project and how is this organised during implementation?

**Dr Christian Winter:** Establishing the Namibian Public Health Institute requires the expertise and support of various national and international public health organisations. In Namibia, the University of Namibia (UNAM), the Namibia Institute of Pathology (NIP), the WHO and the U.S. Centers for Disease Control and Prevention (CDC), among others, are helping to establish the institute either financially or in an advisory capacity. The RKI has seconded me to the MoHSS, helping to ensure that our activities are coordinated with the other actors in

Namibia. The Friedrich-Loeffler-Institut (FLI) and the Research Center Borstel, Leibniz Lung Center (FZB) also work in Namibia as part of the GHPP. We routinely share information and have initiated joint One Health activities in Namibia.

### What have you achieved in the project in recent years and what plans are there for the years to come?

**Philomena Ochurus:** The project was launched in January 2020 at the start of the COVID-19 pandemic. It was therefore important for the project to adopt a flexible approach and to adapt to the COVID-19 situation here in Namibia. Together with the Robert Koch Institute (RKI) we organised training courses on contact tracing, for example. We also jointly built up SARS-CoV-2 PCR testing capacities in Windhoek and in three regional laboratories, and trained staff to improve the clinical care of seriously ill COVID-19 patients. Since the end of 2021, we have joined forces again to focus on the project's long-term goal – establishing the Namibia Institute for Public Health. In the years to come, we look forward to continuing our partnership with the RKI in the follow-up project 'TwiniT 2.0'.

**Duration**  
2020 to 2022

**Country**  
Namibia

**Implementation**  
RKI, MoHSS, UNAM, NIP

**Coordination**  
Dr Christian Winter



## GETPrepaReD

### Strengthening National Epidemiological Capacities of Project Countries in Outbreak and Crisis Management

Reliable surveillance systems and regionally adapted crisis management structures are essential for preventing outbreaks and containing the spread of infectious diseases. In several countries in the Western Balkans, the project has assisted epidemiologists in the early detection of disease outbreaks and in developing targeted control measures. As part of the project, crisis plans and guidelines were developed, further training and simulation exercises conducted, and support was provided for external evaluations of established systems and processes.

**Duration:** 2016 to 2022

**Implementation:** RKI, national institutes of public health in Albania, Kosovo, Montenegro and North Macedonia: ISPH (Albania), IKShPK (Kosovo), IJZCG (Montenegro); IPH (North Macedonia)

**Region:** Western Balkans

## International Health Regulations (IHR) Summer School

### Strengthening the IHR Core Capacities to Improve Preparedness and Response to Health Crises Caused by Infectious Diseases

The 2005 International Health Regulations (IHR) describe the core capacities that WHO member states need in order to prevent and combat global health threats. The annual IHR Summer School helped strengthen selected IHR skills of participants from South-East European and African countries, particularly with regard to surveillance, early warning and response systems, procedures at border crossings, crisis management, and dialogue and networking facilitated between participants and their countries. Adopting a regional approach fostered networking between the participants and strengthened their preparedness for managing various aspects of global health risks.

**Duration:** 2016 to 2022

**Implementation:** RKI, national institutes of public health in project countries, support from WHO, ECDC, GIZ

**Region:** Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, Moldova, Montenegro, North Macedonia, Serbia), Africa (Burkina Faso, Côte d'Ivoire, Egypt, Morocco, Namibia, Nigeria, South Africa, the Sudan, Tunisia)

### Lassa-Nigeria

#### Capacity Building for Rapid Containment of Lassa Fever Outbreaks and Development of Medical Countermeasures in Nigeria

There are currently no vaccines or authorised therapeutics for the prevention or treatment of Lassa fever. This project was carried out in Nigeria, a country with a high disease burden. It aimed to contain outbreaks by monitoring circulating viruses and building clinical capacities. To this end, Lassa Nigeria developed a platform for genomic monitoring of the Lassa virus, trained staff and provided advice to the Ministry of Health. The project also developed capacities for examining new therapeutic candidates by creating the infrastructural prerequisites and, for example, establishing clinical study sites and providing equipment for a study centre, as well as training local staff to conduct clinical studies.

**Duration:** 2019 to 2022

**Implementation:** BNITM, ISTH, FMCO, Inserm, ALIMA, UHH/IP

**Region:** Sub-Saharan Africa

### ProTECT

#### Project on Training for Public Health Emergency Operation Centres

Public health emergency operation centres (PHEOCs) are one of the most important instruments in managing health risks. In times of crisis, they coordinate the flow of information as well as the response to epidemic emergencies, to ensure they are managed effectively. This project developed a standardised training package for employees, to strengthen PHEOCs' ability to operate effectively. A simulation exercise can be carried out after training to test the capacities for dealing with an epidemic outbreak. The project also provided support for regional, multinational exchange on PHEOC activities. During the first phase, context-specific training was also carried out in a South-East Asian country for the first time.

**Duration:** 2020 to 2022

**Implementation:** RKI, WHO SEARO, WHO SEARO member states

**Region:** South-East Asia

**RogerTB****Cross-border Migration and Tuberculosis between Romania and Germany**

Tuberculosis is an infectious disease that usually affects the lungs and generally requires six months of treatment. Patients who regularly travel between Germany and their home country in Eastern Europe for professional reasons, for example, cannot always complete their treatment without interruption. This project aimed to guarantee continuity in care provided for people with tuberculosis and ensure they had ongoing support during treatment. It also helped to educate those affected and sensitise them to tuberculosis control and prevention measures.

**Duration:** 2020 to 2022**Implementation:** DZK, FZB, RKI, Marius Nasta, INSP Romania**Region:** Eastern Europe**TRICE****Strengthening Expertise in the Investigation of Outbreaks of Haemorrhagic Fevers and Antimicrobial-Resistant Pathogens**

The COVID-19 pandemic and outbreaks of Ebola and other haemorrhagic fevers have shown time and again the degree to which the African continent in particular is affected by infectious diseases. To support a quick and efficient response in the event of a crisis, the project ran a number of different training courses to close knowledge gaps in containing infectious diseases. For instance, it organised laboratory training courses on diagnosing pathogens as well as workshops on monitoring hospital infections in the Democratic Republic of the Congo, Burkina Faso and Côte d'Ivoire.

**Duration:** 2016 to 2022**Implementation:** RKI, CM, CHU Sourôu Sanou, CHU Bouaké, UAO, LANADA, INRB, KUH, NICD, UP**Region:** Sub-Saharan Africa



The 55 GHPP projects at a glance

# Priority area: Securing the quality of medicines

## **Improving the safety of blood and blood products, medicines and vaccines worldwide**

Safe, high-quality medicines, vaccines, medicinal products, and diagnostics are required to prevent and effectively treat diseases. Compliance with international standards for effectiveness, safety and pharmaceutical quality is essential in order to reduce health risks among the population. Reviewing these standards is the responsibility of national and regional licensing and monitoring authorities.

The GHPP therefore implemented projects to establish and strengthen the capacities of these authorities. The focus was on establishing sustainable structures to monitor the safety of medicines, vaccines, blood and blood products and to conduct training on pharmaceutical analysis. Newly established regional reference centres transfer knowledge to the entire region. GHPP projects have also advised health ministries on pharmaceutical legislation, thereby strengthening regulatory capacities for medicines, vaccines and blood products in the project countries.





Specialists from national quality control laboratories in African countries acquire expertise in applying methods for drug analysis during a training programme.

# RegTrain – PharmTrain

## Regulatory Training and Advice on Pharmaceuticals



*The availability and accessibility of safe and effective medicines leads to better treatment outcomes, increases patients' trust and reduces the burden of disease, thereby making a significant contribution to strengthening the health care system.*

— Adah Allotey-Pappoe



Adah Allotey-Pappoe



Regine Lehnert

**The eradication of infectious diseases such as AIDS and malaria is an important building block for achieving SDG 3 'Good Health and Well-Being'. How does your project help bring this about?**

**Adah Allotey-Pappoe:** PharmTrain assists countries in the Global South in strengthening their regulatory structures, for example by developing guidelines that help industry and the supervisory authorities ensure that the testing process is transparent and coherent. We strengthen regulatory and scientific capacities by training staff to assess the clinical aspects of applications for licensing medicinal products. This helps to build the capacities of regulatory systems, which in turn will help us improve drug safety, effectively prepare for pandemics and lead the fight against infectious diseases.

**What approach do you use to achieve the project goals?**

**Regine Lehnert:** From the very start, we pursued a participatory approach that involves partners in planning and implementing all project activities. As a result, all activities are tailored to stakeholders' needs and situations. In 2020, we were able to offer ad-hoc webinars on topics related to COVID-19. In our train-the-trainer programme, ten fellows from Ghana, Tanzania and Zimbabwe share their knowledge with others, ensuring that the project is sustainable.

**What key challenges did you need to overcome and what have been the top success stories since the project started?**

**Regine Lehnert:** The COVID-19 pandemic was certainly our biggest challenge. We adapted the implementation of project activities to the 'new normal' using online meetings and a data exchange platform, while investing a lot of energy in building and maintaining relationships between project participants. On a positive note, the new opportunities for online collaboration have increased the reach of our activities. Some of the project's key successes are nine harmonised guidelines for licensing medicinal products, the eLearning module on medicinal information, and the fact that all PharmTrain scholarship holders have already worked as trainers either in their respective authorities or even outside their region.

### Duration

2019 to 2022

### Project countries

Ghana, Liberia, Sierra Leone, the Gambia, Zimbabwe and Tanzania (from 2021)

### Implementation

BfArM, FDA Ghana, LMHRA, MCA, MCAZ, PBSL, TMDA, WHO, AUDA-NEPAD, PEI

### Coordination

Regine Lehnert



# BloodTrain

## Availability, Safety and Quality of Blood and Blood Products: Supporting the Development of a Regulatory Structure and its Adaptation to Crisis Situations in Project Countries



*Safe blood and safe blood products are essential medicines that are urgently needed, particularly in Sub-Saharan Africa. Strong regulatory structures help to ensure their safety and quality in both routine and crisis situations.*

— Dr Jens Reinhardt



Dr Jens Reinhardt

### Why is access to safe blood products so important for strong health care systems?

**Dr Jens Reinhardt:** Good and successful treatment is reliant on safe blood and blood products. Equitable access to adequate supplies of safe blood means that no one has to die from being treated with unsafe products. And a stable and routine supply of such products is also crucial for managing crises in the event of a disaster.

### You use the train-the-trainer approach. How does this help achieve the project’s objectives?

**Dr Jens Reinhardt:** The train-the-trainer approach enables project countries to incorporate their perspectives and specific circumstances into the project. It is not just a case of transferring safe blood supply solutions that are used in one country to another one where conditions are different. Local trainers are much better able to develop solutions that are geared to specific local circumstances. The train-the-trainer approach is also sustainable: training content is passed on to other local employees, with some project countries even offering it to authorities in neighbouring countries so that they too can benefit from our work.

### What success have you achieved over the past seven years? And what tasks still lie ahead?

**Dr Jens Reinhardt:** Strengthening regulation in project countries has achieved initial success in the area of haemovigilance – the monitoring of all steps in the blood transfusion chain in order to record and analyse adverse effects and prevent recurrence. In Ghana, standardised haemovigilance regulations have already been introduced nationwide that were developed by members of the Food and Drugs Authority (FDA) and the National Blood Service (NBS) with our support. Such regulations are also at a well-advanced stage in Tanzania, Zambia and Zimbabwe.

The African Blood Regulators Forum is yet another of our achievements. BloodTrain was instrumental in driving the establishment of this platform in order to harmonise licensing and control regulations in Africa. In this context, we assist in developing blood regulation standards that are then taught in workshops throughout Africa. We aim to harmonise approval and monitoring rules for blood and blood products so that people in all project countries have access to safe and reliable blood products.

<b>Duration</b> 2017 to 2022	<b>Project countries</b> Ghana, Nigeria, Tanzania, Zambia and Zimbabwe	<b>Implementation</b> PEI, national regulatory authorities of Ghana, Nigeria, Tanzania, Zambia and Zimbabwe; AfSBT; AUDA-NEPAD; WHO	<b>Coordination</b> Dr Jens Reinhardt
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## DQA

### Training African National Drug Quality Control Laboratories in Quality Assurance and Quality Management in the Context of Combating Antimicrobial Resistance

Sub-standard drugs have a negative impact on the safety and effectiveness of patient treatments and directly contribute to the increase and spread of antimicrobial resistance. To reduce these risks, the project has trained experts in twenty African project countries in quality control of medicines. In-depth knowledge of drug analytics contributes directly to the safety of local medicines.

**Duration:** 2016 to 2022

**Implementation:** BfArM, WHO RPQ, InphA, NDQCLs in the project countries Armenia, Botswana, Burkina Faso, Burundi, Cameroon, Egypt, Ethiopia, the Gambia, Ghana, Kenya, Malawi, Namibia, Nigeria, Rwanda, Senegal, Sierra Leone, Tanzania, Uganda, Zambia and Zimbabwe.

**Region:** Sub-Saharan Africa

## RegTrain-VaccTrain

### Regulatory Training and Advice in the Field of Drug Safety and Clinical Trials of Vaccines and Biomedical Therapeutics

The Ebola epidemic in West Africa showed that the licensing and availability of effective vaccines and medicines make a significant contribution to rapidly containing epidemics. The responsibility for this task lies with national drug regulatory authorities. They ensure the availability of safe vaccines and medicines, for example by monitoring clinical trials. As part of pharmacovigilance, they also systematically monitor the risk-benefit profile of medicines following licensing. The project provided support for strengthening the structures of national institutions in five project countries, and held training courses to build appropriate regulatory capacities.

**Duration:** 2016 to 2022

**Implementation:** PEI, FDA Ghana, LMHRA Liberia, MCA the Gambia, PBSL Sierra Leone, MCAZ Zimbabwe, WHO, AVAREF, AUDA-NEPAD, BfArM

**Region:** Sub-Saharan Africa

The 55 GHPP projects at a glance

# Priority area: Preventing hospital-acquired infections

## **Strengthening hygiene systems worldwide and combating antibiotic resistance**

Hospital-acquired infections are infections that may be acquired following a medical or surgical procedure, usually in hospitals or other health care facilities. Such infections become particularly challenging when the pathogens responsible develop resistance to medication (antimicrobial resistance – AMR), making them more difficult to treat. AMR is increasing worldwide and the WHO has declared it one of the top ten global public health threats facing humanity. The main driver in the development of drug-resistant pathogens is the misuse and overuse of antimicrobials.

If hospital-acquired infections and AMR are to be effectively combated, evidence-based infection prevention and control (IPC) measures must be taken and the spread of antimicrobial resistance and use of antimicrobial agents monitored.

Against this backdrop, GHPP projects organised training courses on IPC, hygiene standards and the safe collection of medical samples. To curb the spread of AMR, the projects also provided hospital and laboratory equipment and developed surveillance systems to assist in collecting AMR data. This helped to strengthen national health care systems in project countries and supported the global fight against hospital-acquired infections and AMR.





A laboratory technician at the Centre Hospitalier et Universitaire in Bouaké, Côte d'Ivoire, carries out microbiology tests during a workshop on bacteriological laboratory diagnostics and antibiotic resistance.



# NiCaDe

## Nigeria Centre for Disease Control: Capacity Development For Preparedness and Response for Infectious Diseases



*To protect patients and health care staff, the transmission of pathogens in hospitals must be prevented world-wide. This is particularly important in the event of disease outbreaks as well as for particularly pathogenic and antibiotic-resistant agents.*

— Flora Haderer & Tochi Okwor



NiCaDe team

**Why are hospital-acquired infections such a major threat to public health not just in Nigeria but internationally too?**

**NiCaDe team:** Hospital-acquired infections are among the most common adverse events associated with healthcare services worldwide. Effective prevention and control is crucial to combating infections and better protecting patients, visitors and healthcare staff. This is especially important for safeguarding health care services when fighting epidemics and pandemics.

**What does your project aim to do and what activities have you successfully implemented in recent years to achieve this?**

**NiCaDe team:** The Nigeria Centre for Disease Control (NCDC) was established in 2011. The NiCaDe project aims to develop NCDC’s capacities for preparing for and combating infectious diseases. We have established a surveillance system for two pathogens – hepatitis E and the rotavirus – the prevalence of which was previously unknown in Nigeria. This has generated important data for controlling the spread of these viruses and reducing child mortality. In the area of antimicrobial resistance (AMR), we have used the diagnostic stewardship strategy to strengthen laboratory capacities for targeted antibiotic therapy of infections and for monitoring the occurrence of resistance, for example. We have also developed a training strategy and

trained health care professionals to implement effective infection prevention and control measures.

**You adopt the participatory approach to learning in systems (PALS). How does this work in practice?**

**NiCaDe team:** Infection prevention and control in health care facilities is a systemic challenge and requires the direct involvement of local stakeholders if it is to work long term. PALS focuses on bringing about change within an organisation: Communication, teamwork, systemic thinking and participatory planning are important for sustainably improving quality, as is taking account of various factors. The PALS approach trains teams of health care professionals to develop measures that are adapted to local conditions and resources and implement them in their hospital practice, with support from mentors. As well as improving the quality of health care, PALS also encourages participants to use their own initiative.

<b>Duration</b> 2019 to 2022	<b>Country</b> Nigeria	<b>Implementation</b> RKI, NCDC	<b>Coordination</b> RKI: Dr Tim Eckmanns, Dr Flora Haderer MPH, Prof Dr C.-Thomas Bock, Dr Patrycja Klink, Dr Sara Tomczyk, Dr Anja von Laer. NCDC: Dr Chinwe Lucia Ochu, Dr Tochi Okwor, Dr Abiodun Egwuenu, Dr Adedeji Adebayo
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**ARGOS****Support in Developing AMR Surveillance Systems**

Reliable diagnostics for detecting and monitoring antibiotic resistance play a decisive role in successfully treating patients. They also generate data for surveillance activities and infection prevention and control, thus reducing the spread of resistance. The project supported the sustainable establishment of reliable and quality-oriented microbiological diagnostics in hospitals in Burkina Faso and Côte d'Ivoire. Experts from the RKI and the partner institutions joined forces to provide continuous support and conduct extensive, practice-oriented training courses on blood culture diagnostics and on quality assurance and data management. Clinical and socio-demographic data were collected in a national surveillance system and analysed.

**Duration:** 2016 to 2022**Implementation:** RKI, CHU Bouaké, Centre Muraz, CHU Sourôu Sanou**Region:** Sub-Saharan Africa**EFFO****Efficiency by Edification – Center of Excellence**

The technical expertise of medical staff plays a crucial role in managing disease outbreaks. EFFO provided support for training experts by establishing a training network and arrangements for regional cooperation between experts in the event of disease outbreaks. The follow-on project EFFO CoE (2021-2025) is supporting the construction of a centre of excellence in Rwanda, which will house a special isolation unit and training centre. It also organises training courses for workers in the healthcare sector.

**Duration:** 2016 to 2025 (EFFO I/II: 2016 to 2021, EFFO -CoE: 2021-2025)**Implementation:** EFFO I/II: RKI, RBC, Operndorf Afrika, MI, STAKOB, Charité/ITMIH; EFFO-CoE: RKI, RBC, Charité (ITMIH and Speciality Network: Infectious Diseases and Respiratory Medicine), Medmissio Würzburg, TU/IKE**Region:** Sub-Saharan Africa



## OneHealth Namibia

### One Health-oriented Interventions in Namibia

This project addressed important issues in Namibia, with a focus on the intersection between human and animal health. It conducted a field trial on oral immunisation of stray dogs, supporting Namibia's national rabies elimination programme as well as the global strategic plan of the United Against Rabies Forum, which aims to end human deaths from dog-mediated rabies by 2030. In the area of antimicrobial resistance (AMR), the project helped develop national diagnostic and surveillance capacities and revitalise interdisciplinary exchange on the national AMR action plan.

**Duration:** 2020 to 2022

**Implementation:** FLI, MAWLR, DVS, CVL

**Region:** Sub-Saharan Africa

## PASQUALE

### Partnership to Improve Patient Safety and Quality of Care

Hospital-acquired infections and antibiotic resistance pose an increasing risk to the safety of patients in healthcare facilities. Mandatory hygiene regulations, guidelines on surgical safety and the appropriate sterilisation of medical devices are required to combat these problems. The project has sustainably strengthened these areas in two hospitals in Guinea and Côte d'Ivoire – by implementing guidelines, training staff and initiating a culture of error awareness and response.

**Duration:** 2019 to 2022

**Implementation:** RKI, HRF, CHU Bouaké

**Region:** Sub-Saharan Africa

## Stand AMR

### Development of a Standardised AMR Laboratory for Resource-Limited Settings

The numbers of antibiotic resistances continue to rise worldwide. Because rural regions often lack the laboratory capacities to diagnose AMR, however, the project has set up five microbiology laboratories in Ghana and Tanzania to test clinical samples for resistant bacteria. It also provided support for establishing an additional laboratory in Zanzibar and for training in the field of bacteriology to ensure that the laboratories continued to be used on project completion.

**Duration:** 2019 to 2022

**Implementation:** BNITM, KCCR, NIMR

**Region:** Sub-Saharan Africa

## TuNDRA

### Real-Time Tracking of Neglected Bacterial Diseases and Resistance Patterns in Asia Aetiology, Disease Burden and AMR

Analysing collected laboratory results enables the identification of resistance patterns in the most important pathogens, which in turn enables a response to outbreaks of infectious disease or increased incidence of AMR. In Bangladesh, Cambodia and Viet Nam, this project identified the antibiotic resistance profiles of selected pathogens and published genome sequencing data in an open access database. It also conducted a study on the cost of illness of fever and respiratory diseases as well as the burden of infections caused by Respiratory Syncytial Virus (RSV). The findings provided key insights for possible future vaccination strategies.

**Duration:** 2017 to 2023

**Implementation:** RKI, IVI, CHRF, KHM, COMRU, OUCRU, WTSI, BDI, DHS

**Region:** South-East Asia

The 55 GHPP projects at a glance

# Priority area: Generating evidence for better health protection

## Closing research gaps worldwide and supporting young researchers

The level of research and access to educational programmes in the health sector varies widely worldwide, which creates and reinforces knowledge gaps. Effective health policy decisions may, however, be made on the basis of scientific data, for example on pathogens or participation in vaccine programmes. Building and providing support for research capacities throughout the globe is therefore of utmost importance.

The GHPP focuses on implementation research. The project teams supported scientific exchange between institutions – both in Germany and internationally – and developed the capacities of up-and-coming researchers. Some projects implemented specialist training for postgraduates. Other projects conducted studies in several project countries; These studies collected evidence for the effectiveness of specific vaccination programmes, which then informed political action.





Participants in a workshop on introducing modern diagnostic tools and training for whole genome genotyping for SARS-CoV-2 in Mozambique discuss Standard Operating Procedures.



# SeqMDRTB\_NET

## Network for the Application of Sequencing Technologies for the Fight Against Resistant Tuberculosis in High Incidence Settings



*Modern sequencing technologies allow us to diagnose cases of tuberculosis swiftly and accurately and recognise the frequently occurring drug resistance. This enables us to care for patients effectively and to break transmission chains.*

— Prof Dr Stefan Niemann



Prof Dr Stefan Niemann



Doctor B. Sibandze



Prof Dr Sofia Viegas

### How important is the fight against tuberculosis today and what role does your project play in overcoming this threat to global health security?

**Prof Dr Stefan Niemann:** Respiratory infections, especially tuberculosis (TB), are responsible for high morbidity and mortality rates in southern Africa. Multidrug-resistant TB pathogens are particularly dangerous in this context. To successfully treat patients in such cases, samples must be tested for resistance as soon as possible. SeqMDRTB\_NET aims to establish this technology in Eswatini, Namibia and Mozambique.

### How does the establishment of modern sequencing technologies for tuberculosis work in the project countries?

**Prof Dr Sofia Viegas:** Let's take Mozambique as an example. Although it is a country with a high TB burden, very little is known about TB's molecular epidemiology there. The project investigates which strains and variants of TB are in circulation in the country and how drug resistance is developing. We use the findings to propose changes to the national guidelines for treating patients.

**Doctor B. Sibandze:** The new sequencing technology is already being used for diagnosis in Eswatini. This means that a larger number of multidrug-resistant infections can now be recognised in TB patients for the first time.

### How did the COVID-19 pandemic affect your project and what is your goal for the years to come?

**Prof Dr Sofia Viegas:** The outbreak of the pandemic made the sequencing of SARS-CoV-2 important in addition to the sequencing of TB pathogens. In this context, it is crucial here that we identify the mutations that are prevalent in a country. Samples from Mozambique were initially sequenced at the FZB. Local capacities were then successfully developed.

In the years to come, we will once again focus on combating drug-resistant tuberculosis. We would like to further expand sequencing capacities for rapidly diagnosing resistant strains and monitoring TB epidemiology in real time, with a focus on the spread of drug-resistant tuberculosis bacteria in the region.

#### Duration

2019 to 2022

#### Project countries

Eswatini, Kyrgyzstan, Moldova, Mozambique, Namibia

#### Implementation

FZB, NRZ, WHO TB Supranational Reference Laboratory, NTCP Eswatini, NTRL Eswatini, BCF Eswatini, OSR, NTBC Kyrgyzstan, INS Mozambique, IFP MD, UNAM, IML

#### Coordination

Dr Leonardo de Araujo, Prof Dr Stefan Niemann

## CPA

**Combating antimicrobial Resistance – Scientific training on optimal use of anti-infectives**

The appropriate use of anti-infectives plays a crucial role in preventing the development and spread of resistant pathogens. The project focussed on transferring knowledge in the field of clinical pharmacology. As well as providing training to doctoral students on the rational use of anti-infective therapy, the project supported a joint research network between Zimbabwe, Zambia and Malawi to optimise the use of anti-infectives, and developed a master's degree programme in pharmacogenomics.

**Duration:** 2016 to 2022**Implementation:** BfArM, AiBST, ZU, UNZA, UNIMA**Region:** Sub-Saharan Africa

## GoAfrica

**Strengthening of *Neisseria Gonorrhoeae* Antimicrobial Resistance (AMR) Surveillance and Diagnostics in African Project Countries in the Framework of the WHO Global Action Plan**

In the WHO Africa region, eleven million new infections with *Neisseria gonorrhoeae* (NG), commonly known as gonorrhoea, are estimated each year. Nigeria, Rwanda and Germany launched the GoAfrica project to address this threat. The project's long-term goal was to strengthen the surveillance of NG resistance in countries with a high incidence of the disease, thereby supporting WHO's Global Action Plan on AMR.

**Duration:** 2021 to 2023**Implementation:** RKI, RBC, NCDC, WHO CC for Gonorrhoea and other STIs**Region:** Sub-Saharan Africa

## IDEA

**Strengthening Diagnostic Capacities for the Detection of Infectious Diseases in Sri Lanka**

Cross-border disease transmission is on the rise, and rapid identification of infectious agents is critical. IDEA strengthened diagnostic capacities in Sri Lanka by helping to establish public health laboratories for the molecular detection of pathogens. It also organised training on the diagnostics of infectious diseases for laboratory personnel and university staff and expanded the diagnostics portfolio to include research on potential zoonotic and previously unknown pathogens.

**Duration:** 2017 to 2022**Implementation:** RKI, UoC, NCTH**Region:** South Asia



**LEARN****Cross-Project Enquiry into eLEARNING Concepts Towards Supporting Sustainable Capacity Building in the Context GHPP**

The COVID-19 pandemic highlighted the crucial role that digital learning platforms play in transferring knowledge. To respond to the specific requirements of individual projects, LEARN supported sustainable and participatory measures in the area of teaching and learning. The aim was to identify how online tools and eLearning are used in GHPP projects, pinpoint gaps and draw up recommendations for the best possible use of electronic platforms in teaching, learning and communication.

**Duration:** 2020 to 2022**Implementation:** BfArM, RKI**Region:** Global**ORDER-HC****Organise Response to Disease Epidemics Maintaining Routine Health Care**

Epidemic outbreaks, such as of the Ebola virus disease can severely compromise national healthcare systems. In order to manage such outbreaks, resources must be mobilised rapidly, which may however have a knock-on effect on basic medical care in other areas of the healthcare system. The ORDER-HC project therefore aimed to develop recommendations and strategies for maintaining routine healthcare during epidemics and to further develop existing curricula for healthcare professionals.

**Duration:** 2017 to 2022**Implementation:** BNITM, RKI, CNRST/IRSS, SantéPlus, UL-PIRE Africa, USTTB/FMOS & UCRC, UCAD, COMAHS**Region:** Sub-Saharan Africa

**PPE****Partnership in Postgraduate Education – Education and Advanced Training of Scientific Personnel from Cooperating Countries**

Establishing and stepping up cooperation on an equal footing: with this in mind, the PPE project organised annual visits to Germany for guest researchers from Africa, Asia and South America, giving them access to novel technologies and methods in the area of laboratory diagnostics and epidemiology. This enabled them to acquire additional skills and pass on their acquired knowledge to others in their home countries. The project was aimed primarily at permanent staff in the public health service and in laboratories. Besides providing organisational and administrative support for the visiting guests and running various workshops, the project team organised the stays in Berlin and continuously updated the programme, in line with needs.

**Duration:** 2016 to 2022**Implementation:** RKI, Centre Muraz, CHU Sourôu Sanou, INRB, CHU Bouaké, CEA-PCMT, IJZCG, NIP, LAUTECH, NCDC, UI, UCH Ibadan, OAU, Centro Medical Naval Peru, DOH/Epidemiology Bureau Philippines, UoC, Central Laboratory Sudan, UP, ATSMU, IPT, RIV Tashkent, National Influenza Centre Tunis**Region:** Global**Sero-B****Preparation of Serosurveys to Evaluate the Hepatitis B Vaccination Impact in Eastern Europe and Central Asia**

One important goal of the WHO's regional action plan to combat hepatitis B in Europe is to achieve very low prevalence of the hepatitis B surface antigen (HBsAg) in vaccinated cohorts. To validate that this objective has been achieved, each member country must carry out at least one representative seroprevalence survey. As part of the project, RKI – in close cooperation with the WHO Regional Office for Europe – provided technical expertise for designing and implementing hepatitis B seroprevalence studies in three countries in Eastern Europe and Central Asia.

**Duration:** 2021 to 2023**Implementation:** RKI, WHO EURO**Region:** Eastern Europe, Central Asia

The 55 GHPP projects at a glance

# Priority area: Managing health crises together

## **Making expertise available 24/7 worldwide to combat disease outbreaks**

In recent years, epidemics such as the Ebola virus disease, Mpox and Marburg virus disease have shown that – in a globalised world – regional health crises can quickly become an international threat and that countries may not be able to cope with an outbreak on their own. Rapid international coordination and response to disease outbreaks is urgently needed to reduce this risk, and is attracting increasing attention at both the policy and research level.

GHPP projects therefore assisted in the rapid deployment of experts across national borders. This support helped project countries ensure a rapid national, regional and international response to outbreaks, particularly those caused by pathogens with pandemic potential. GHPP also implemented projects to safeguard the global availability and coordination of medical emergency personnel and strengthen mobile laboratory diagnostics.





EMLab technicians take part in an international simulation exercise in Russia, jointly organised by the Federal Service for the Oversight of Consumer Protection and Welfare of the Russian Federation (Rospotrebnadzor) and the World Health Organization.



# AfroLabNet: African Laboratory Network

Strengthening National Capacities for Outbreak and Crisis Management in Africa and Mobile Diagnostic Units in Sub-Saharan Africa and Europe for Use in Crisis Situations



*We want to reduce the burden of infectious diseases worldwide by strengthening local healthcare systems and networks, and building the capacities of stationary and mobile laboratories. This is an essential step in ensuring general pandemic preparedness.*

— Dr Meike Pahlmann & Dr Emily Nelson



Dr Meike Pahlmann



Dr Emily Nelson

**AfroLabNet is expanding its capacity to diagnose infectious diseases in African countries. Why is this important and how exactly do you want to achieve this?**

**Dr Meike Pahlmann:** Our partners must be able to diagnose infectious diseases independently so that they can quickly recognise outbreaks and swiftly initiate all necessary measures to contain the outbreak. We are therefore continuously expanding the capacities of our partner laboratories and introducing the latest techniques and diagnostic procedures. Staff are also receiving further training to enable them to reliably identify circulating, rapidly evolving and emerging pathogens.

**Why is cooperation with WHO's Global Alert and Response Network (GOARN) so important and how is it organised in practice?**

**Dr Emily Nelson:** Mobile laboratory units, such as the European Mobile Laboratory (EMLab) set up by the Bernhard Nocht Institute for Tropical Medicine (BNITM), play a crucial role in responding to disease outbreaks. They close the diagnostic gap between communities with inadequate infrastructure and healthcare facilities as well as the reference or national laboratories needed to confirm a diagnosis.

The WHO Global Outbreak and Alert Response Network (GOARN) supports our project as a partner of EMLab,

organising missions in emergency situations and at the request of the country in question. Mobile laboratory units are then sent specifically to where they are needed. GOARN supports the entire logistics process. Deployed EMLab staff are categorised as WHO personnel, and are therefore integrated into WHO's structures during their assignment.

**What are you particularly proud of and what are the most important results you have achieved?**

**Dr Meike Pahlmann:** In recent years, the BNITM has successfully built up laboratory capacities in three important project countries – Nigeria, Guinea and Benin. The countries were able to detect outbreaks much more quickly and respond accordingly – to Lassa fever, Ebola and the Marburg virus, for example. Our complementary GHPP projects also carried out virus sequencing on site, which improved the treatment of Lassa fever in particular. We have also been able to expand South-South cooperation between partner laboratories, so that long-term training programmes can now be conducted across different locations to further build capacities.

**Duration**  
2016 to 2022

**Project countries**  
Benin, Guinea, Nigeria, Togo

**Implementation**  
BNITM, ISTH/ILFRC, PFHG,  
LFHVGKD, LFHB, RKI, IMB, INMI

**Coordination**  
Dr Meike Pahlmann und  
Dr Emily Nelson

**D:APS****Evaluation, Planning and Providing Support for RKI Response Teams**

International experts who support the response to health emergencies and help build the capacities of public health systems must be prepared as well as possible for such missions. Preparation includes, for example, first aid courses in the field as well as security, safety and media training. In addition to implementing such preparatory measures, the project organised numerous emergency support missions, including for the Lassa fever outbreak in Benin in 2017 and in Nigeria in 2018, for dengue fever in Sri Lanka in 2018, Ebola virus disease in the Democratic Republic of the Congo in 2018 and 2019 and COVID-19 between 2020 and 2022.

**Duration:** 2016 to 2022**Implementation:** RKI**Region:** Global**EMiL****Development and Implementation of European Standards for Mobile Diagnostic Laboratories**

Rapid response mobile laboratories (RRML) play an important role in the flexible and reliable identification, investigation and containment of disease outbreaks. This project implemented uniform strategies and standards for their safe and secure deployment, by preparing quality assurance and laboratory information strategies as well as logistics and responsible response plans, for example. In this way, EMiL played an important role in establishing international standards as an essential prerequisite for the effective operation of RRML capacities in a European and international context.

**Duration:** 2020 to 2022**Implementation:** RKI, UK-PHRST, Rospotrebnadzor, UCL/CTMA, WHO EURO, GOARN, BNITM, BMI, Institut Pasteur**Region:** Global



## EMT TT

**Emergency Medical Teams Twinning, Training, Transfer of Knowledge**

Time is of the essence when it comes to responding to disaster and outbreaks of disease. EMTs are teams of doctors, nurses and logisticians deployed in disaster and disease outbreak scenarios. Their medical care provides surge capacity to support the local health system. In order to increase the number of EMTs and be able to respond to health emergencies in a more targeted and effective manner, the project adopted a twinning approach to support EMTs in project countries, and conducted training measures to sustainably strengthen EMT coordination mechanisms.

**Duration:** 2020 to 2022

**Implementation:** RKI, LEPL Emergency Situations Coordination and Urgent Assistance Center (Georgia), MDMC (Indonesia), WHO EMT Initiative, WHO EURO, WHO SEARO, ASB, I.S.A.R. (Germany)

**Region:** Central Asia, South-East Asia, global

## GOPA

**Strengthening of the Collaboration Between the Global Outbreak Alert and Response Network (GOARN) and the Postgraduate Training for Applied Epidemiology (PAE)**

This project supported WHO's Global Outbreak Alert and Response Network (GOARN) by assigning fellows of the Postgraduate Training for Applied Epidemiology (PAE) on outbreak response missions to third countries. It strengthened human and technical capacities for rapidly identifying, validating and managing disease outbreaks worldwide.

**Duration:** 2020 to 2022

**Implementation:** RKI, WHO, GOARN

**Region:** Global

## GoPHR

### Strengthening operational capacities for response to disease outbreaks

RKI's Centre for International Health Protection (ZIG) coordinates the international assignment of RKI experts involved in investigating and managing disease outbreaks. This is achieved first and foremost through active participation in mechanisms such as the German Epidemic Preparedness Team (SEEG), the Global Outbreak Alert and Response Network (GOARN) and the Emergency Medical Teams (EMTs). The project supported partners worldwide in managing the COVID-19 pandemic along with other outbreaks and epidemics where necessary, particularly in the key areas of laboratory skills, infection prevention and control (IPC) and behavioural sciences/ risk communication.

**Duration:** 2021 to 2024

**Implementation:** RKI, GOARN, SEEG, GIZ

**Region:** Global

## Response

### Interventions to Prevent and Control Infectious Disease Outbreaks in Low- and Middle-Income Countries

The German Government established the German Epidemic Preparedness Team (SEEG) in 2015 in order to detect outbreaks of infectious diseases early on through short-term, flexible and professional on-site interventions, and thus prevent their spread. RESPONSE ensures that sufficient numbers of highly qualified personnel from Germany are available for these missions at all times. This ensures that the interventions can be carried out, and plays an important role in both controlling outbreaks ad hoc, and building sustainable country preparedness for future outbreaks through training, education and diagnostic capacity development.

**Duration:** 2021 to 2024

**Implementation:** BNITM, RKI, GIZ, SEEG, GOARN, ECHO

**Region:** Global

The 55 GHPP projects at a glance

# Priority area: Acting globally

## **Strengthening global health governance and promoting international networking**

Global health security is a challenge that requires action at different levels. Good international relations and effective communication between countries and regions are therefore crucial to effectively tackling global challenges. The WHO plays a key role in this context. It promotes dialogue and cooperation between countries and actors in the field of global health, and provides the framework for developing national and international guidelines and recommendations.

Projects funded by the GHPP advised actors in project countries, such as national vaccination commissions, on implementing relevant WHO recommendations and guidelines. GHPP projects also strengthen WHO's activities by establishing WHO collaborating centres and developing networks.





A cohort of the Field Epidemiology & Laboratory Training Program (FELTP) for educating and training public health workers in Windhoek, Namibia.

# EURO NITAGs

## Strengthening National Immunization Technical Advisory Groups in Middle-Income Countries of the WHO European Region



*Decisions on introducing new vaccines and national immunisation strategies have a major impact on public health. They should therefore be based on the best available evidence, as compiled by independent multidisciplinary experts.*

— PD Dr Ole Wichmann



PD Dr Ole  
Wichmann



Dr Thomas  
Harder



Dr Wiebe  
Külper-Schiek &  
Dr Liudmila Mosina

### What are national vaccination commissions and why is their work so important?

**PD Dr Ole Wichmann:** The field of immunisation has become more complex in recent years, as several new vaccines have come onto the market. Vaccination programmes cost a lot of money and therefore pose a financial burden for middle-income countries in particular. Careful consideration must therefore be given to which vaccines should be included in a national programme. National commissions develop recommendations so that policymakers can make informed decisions about which vaccines to introduce and how, and who should be vaccinated and when.

### What was the objective of your project and what steps did you take to achieve it?

**Dr Thomas Harder:** Although almost all European WHO countries have an immunisation commission, many are not well equipped. There is a lack of personnel, expertise and access to good sources of evidence. Developing evidence-based recommendations can take years, and it is therefore very important that a vaccination commission is not just well staffed, but well-structured too. The project systematically evaluated the structure and work of immunisation commissions in 16 countries, establishing how they function and the specific challenges they face. Based on the findings, each immunisation commission developed a two-year plan that included work packages to address their challenges and build on their strengths.

### How did the outbreak of COVID-19 affect your project?

**Dr Wiebe Külper-Schiek & Dr Liudmila Mosina:** As commission members often work in medicine, many vaccination committee members were heavily involved in fighting the pandemic. Increased workloads and travel restrictions thwarted our plans to carry out evaluations in the respective countries. Once the COVID-19 vaccines had been developed, the commissions were asked to prepare recommendations, as the vaccines were initially only available in very limited quantities. Of the 16 planned evaluations, we were only able to conduct seven by November 2022. Instead, we held a series of webinars for vaccination commissions in European WHO countries, presenting data on the vaccines and guidelines developed by regional and global commissions. These webinars led to stronger networking between vaccination commissions, experts and partner organisations, with each group benefiting from the experience and knowledge of the others.

#### Duration

2020 to 2022

#### Project countries

Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan

#### Implementation

RKI, WHO Regional Office for Europe

#### Coordination

PD Dr Ole Wichmann



### IHR-PVS Toolbox

#### Supporting WHO in the Development of Toolboxes for Bridging International Health Regulations (IHR) and Performance of Veterinary Services (PVS)

Close cooperation between veterinary and human medicine is needed to swiftly detect and contain infectious diseases (zoonoses) that are transmitted from animals to humans. This project adapted the methodology used by the IHR-PVS National Bridging Workshops (NBW) in order to target specific diseases (initially rabies). The new NBW Rabies is available on request from WHO and the World Organisation for Animal Health (WOAH). Using a transdisciplinary approach, it helps improve collaboration between veterinary and human medicine.

**Duration:** 2019 to 2022  
**Implementation:** FLI, WHO  
**Region:** Global

### SYSVAC

#### Global Registry of Systematic Reviews to Strengthen National Immunisation Programmes and Decision-Making Processes

National vaccination commissions use systematic reviews to develop vaccination recommendations for different population groups. This project established SYSVAC – a freely accessible online registry of such reviews. It supports commissions, particularly those that lack the required human and financial resources, in identifying reviews on vaccination topics. By helping to source reviews of risk groups in order to prioritise the distribution of limited vaccine resources during the COVID-19 pandemic, for example, the SYSVAC registry helped significantly improve the quality of national vaccination programmes.

**Duration:** 2019 to 2022  
**Implementation:** RKI, WHO, LSHTM  
**Region:** Global



### WHO AMR CC Network

#### Coordination of WHO AMR Surveillance and Quality Assessment Collaborating Centres Network to reduce antimicrobial resistance

Antimicrobial resistance (AMR) poses an increasing threat to global health. The Global Antimicrobial Resistance Surveillance System (GLASS) was established in 2016 to standardise AMR surveillance. The RKI plays a key role in coordinating, organising and further developing the WHO AMR Surveillance and Quality Assessment Collaborating Centres Network (AMR Surveillance CC Network), which supports WHO member states in implementing GLASS and plays a key role in achieving its objectives.

**Duration:** 2019 to 2022

**Implementation:** RKI, WHO  
AMR Surveillance CC Network

**Region:** Global

### WHO CC GOARN

#### Operationalisation of the WHO Collaborating Centre for GOARN

The WHO's Global Outbreak Alert and Response Network (GOARN) pools human and technical resources for responding to disease outbreaks. The RKI is home to GOARN's first global Collaborating Centre, which supports the WHO in identifying and responding to health threats. WHO CC GOARN prepared and implemented leadership training as well as various training formats, and supported further development of the GOARN network and GOARN projects such as Go.Data.

**Duration:** 2019 to 2022

**Implementation:** RKI, GOARN

**Region:** Global

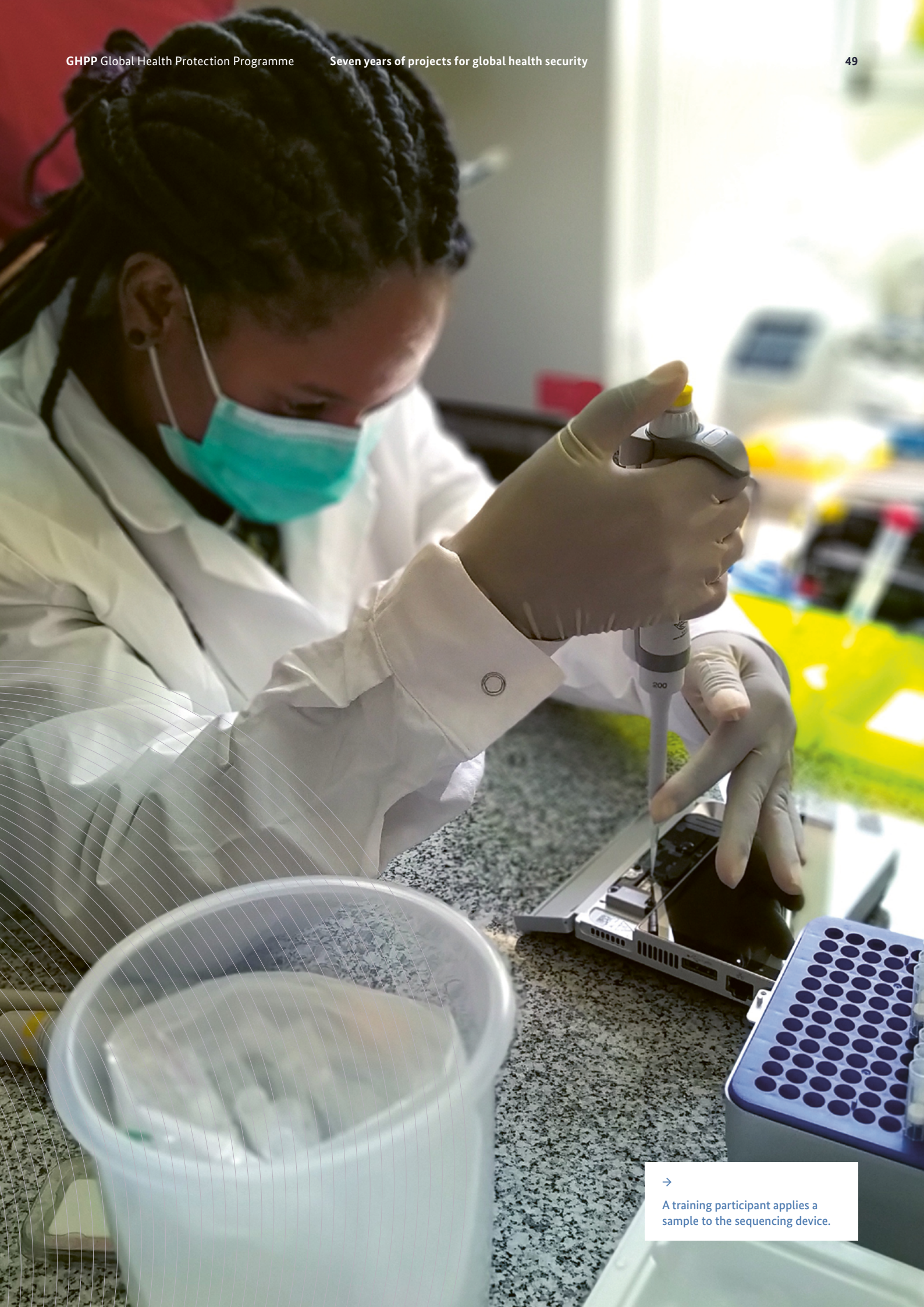
The 55 GHPP projects at a glance

# COVID-19 global projects

The COVID-19 pandemic showed just how important it is to be well prepared for health crises, and to join forces in managing them. Many of the GHPP's projects were able to adjust their activities to the new requirements. Seventeen additional projects were funded that specifically addressed partners' needs against the backdrop of the pandemic. They aimed to directly support the fight against the pandemic on the ground and to address the indirect impacts too.

Specifically, this involved strengthening operational capacities, particularly in the area of laboratory diagnostics, as well as gathering information on new virus variants. Studies were also conducted on the burden of disease caused by COVID-19 as well as the impact of the pandemic on other health care areas. The introduction of new sequencing technologies, the implementation of new vaccine uptake studies and the standardisation of accelerated approval of medicines in a health emergency provided additional support to project countries.





A training participant applies a sample to the sequencing device.



# SToP-CoV

## Strengthening COVID-19 Response on the Islands of São Tomé and Príncipe



*Thanks to cooperation between specialists from the Ministry of Health in São Tomé and Príncipe and the BNITM, the country is now better prepared for monitoring and effectively combating pathogens.*

— Dr Rosa Neto



Dr Rosa Neto



Dr Kathrin Schuldt

**You launched your project in 2021 in response to the global outbreak of COVID-19. How did the bilateral partnership between the BNITM and the Democratic Republic of São Tomé and Príncipe come about?**

**Dr Kathrin Schuldt:** In 2019 and 2020, I was already working as a BNITM outbreak control expert in the Democratic Republic of São Tomé and Príncipe, as part of WHO projects. The aim then was to advise the Ministry of Health (MoH) on the COVID-19 national testing strategy and to support development of molecular diagnostics for SARS-CoV-2 in Sao Tome. This led to the idea of establishing longer-term cooperation between the BNITM and MoH in order to strengthen long-term capacities for combating infectious diseases.

**What is your goal? What important milestones have you achieved since then?**

**Dr Kathrin Schuldt:** The project's overarching objective is to strengthen capacities for controlling outbreaks. Activities to date included training laboratory staff in diagnostics, quality control and genome sequencing for SARS-CoV-2. Genomic surveillance for SARS-CoV-2 was established in collaboration with the national surveillance system.

In 2022, the MoH of São Tomé and Príncipe and BNITM signed a memorandum of understanding, with both institutions committing to engage in scientific dialogue and capacity building as part of long-term bilateral cooperation in the field of infectious disease epidemiology and combating such diseases.

**Going forward, how do you intend to build on previous activities so that there is greater preparedness for future epidemics in São Tomé and Príncipe?**

**Dr Kathrin Schuldt:** For the first time in the history of São Tomé and Príncipe, an outbreak of dengue fever that infected more than 1,000 of the island state's population of 200,000 was detected in April 2022. Although symptoms are usually flu-like, in rare cases life-threatening complications can develop. This outbreak emphasises the need to prepare for future epidemics. Existing methods for dealing with SARS-CoV-2 will therefore be extended to other pathogens such as the dengue virus, in order to improve preparedness for outbreaks and enable them to be combated quickly.

**Duration**  
2021 to 2023

**Project countries**  
São Tomé and Príncipe

**Implementation**  
BNITM, Ministry of Health of São Tomé and Príncipe, LNR-TB, WHO

**Coordinator**  
Dr Kathrin Schuldt

# NACOH

## Addressing COVID-19 Through a One Health Approach



*Nigeria is a global hotspot for emerging infectious diseases. This is due to the high population density of more than 200 inhabitants per square kilometre, high biodiversity, low biosecurity of farms and high rates of contact between humans and animals.*

— Dr Clement Meseko



Dr Clement Meseko



Dr Anja Globig

**Your project was launched in 2021 in response to the COVID-19 outbreak. What role does the veterinary sector play in combating the pandemic?**

**Dr Clement Meseko:** The veterinary sector in Nigeria has centuries of experience in diagnosing and controlling highly contagious animal diseases. When COVID-19 cases started to emerge in Nigeria, public health facilities were no longer able to meet the demand for testing. Thanks to support from the veterinary sector, it was possible to make more diagnoses, isolate patients and treat them accordingly.

**The One Health approach is particularly important in Nigeria. Why is this? And how is your project supporting the long-term establishment of the approach in the country?**

**Dr Clement Meseko:** Many infectious diseases such as Lassa fever, Mpox or Ebola virus disease originate from animals. In 2019, Nigeria became the first African country to embed an interdisciplinary, cross-agency One Health approach in a national strategy. NACOH addresses the role played by the relationship between humans and animals in the development of zoonoses.

**What successes has your project achieved since it started, and what future plans do you have?**

**Dr Anja Globig:** As part of the project, the National Veterinary Research Institute developed its capacities for detecting SARS-CoV-2 antibodies in domestic and wild animals and genomically sequencing the samples. An interdisciplinary and international team from the fields of human and veterinary medicine and anthropology spent several weeks researching the interface between humans, animals and wildlife, for example, at a large abattoir in Abuja. More than 4,000 samples were collected from domestic and wild animals for the study, the aim being to understand the mechanisms of disease transmission between humans and animals. We presented initial findings at four international conferences and in one publication. Three more publications are in the pipeline. Presenting these findings to participants at the study sites in Abuja and Kaida was high on the team's list of priorities. It allowed us to examine critically, together with local people, how the findings can help reduce the risk of disease transmission between humans and animals and how communities can implement appropriate measures.

**Duration**  
2021 to 2023

**Country**  
Nigeria

**Implementation**  
FLI, NVRI Nigeria, RKI

**Coordination**  
Dr Clement Meseko,  
Dr Anja Globig

## ACGSL

**Assessing the Effect of the COVID-19 Pandemic on Health Systems in Guinea and Sierra Leone: the Case of Malaria**

This project used the malaria epidemic as a case study for assessing the impact of COVID-19 on health care systems in Guinea and Sierra Leone. Among other things, it analysed how the provision of basic health measures changed during the pandemic. It also compiled models to determine the long-term consequences of COVID-19's burden on healthcare systems and the resulting costs. The study will be used as a basis for future political decision-making on strengthening the healthcare system in both countries.

**Duration:** 2021 to 2023

**Implementation:** RKI, MoH Guinea, MoHS Sierra Leone, CEA-PCMT, COMAHS

**Region:** Sub-Saharan Africa

## AfroLabNet – Corona Global

**Strengthening of National Capacities to Support Addressing the COVID-19 Health Crisis**

AfroLabNet has been building stationary and mobile laboratory capacities in Nigeria, Guinea and Benin since 2016. Much of these capacities were being absorbed in testing the new pathogen behind the COVID-19 pandemic, however. Project activities were expanded to provide additional equipment for SARS-CoV-2 testing in the existing laboratories in project countries, with additional training also provided for staff. In Guinea and Nigeria, the project further developed laboratory capacities by implementing SARS-CoV-2 genomic surveillance units.

**Duration:** 2021 to 2023

**Implementation:** BNITM, ISTH, NCDC, LFHVG, LFHV-GKD, HRNZE, LFHV-Cot

**Region:** Sub-Saharan Africa

## BCHW

**Burden of COVID-19 Among Health Care Workers – a Mixed Methodology, Multisite International Study**

The physically and emotionally exhausting work carried out by healthcare workers puts them at higher risk of infection. In an effort to better address research gaps in physical and emotional strain, this project – which was carried out in Nigeria, Madagascar, Côte d'Ivoire and the Democratic Republic of the Congo – focused for example on determining the prevalence and seroprevalence of SARS-CoV-2 infections as a function of vaccination status and risk factors. It also captured the physical and emotional burden on health personnel, and developed capacities for diagnostics, molecular epidemiology and cross-sectoral field studies through a One Health approach.

**Duration:** 2021 to 2023

**Implementation:** RKI, NCDC Nigeria, FLI, NVRI Nigeria, CHU Bouaké, LA2M, INRB

**Region:** Sub-Saharan Africa



**BoCO-19****The Burden of Disease Due to COVID-19 – Towards a Harmonization of Population Health Metrics for the Surveillance of Dynamic Outbreaks**

How big an impact did COVID-19 have on public health? The BoCO-19 project examined this question together with 14 partner institutions. Using the burden of disease (BoD) methodology with country-specific data, joint workshops were conducted to determine BoD indicators. Applying a harmonised methodology, the data will be used to quickly capture the burden of disease and in the long term support integration of the findings into epidemic and pandemic surveillance.

**Duration:** 2021 to 2023**Implementation:** RKI, NAPH Albania, PHRC Azerbaijan, IPH in Bosnia and Herzegovina, PHI of the Republic of Srpska, NCDC Georgia, KazNU, Public Association “Healthy Future”, NIPH Kosovo, MNUMS, IPH Montenegro, UoB FoM ISM, MoH Turkey, PHC Ukraine, Tashkent Institute for Postgraduate Medical Education**Region:** WHO EURO, Mongolia**CLEAR****COVID-Like Illness and Respiratory Pathogens Diagnostic Response in Ghana**

A lack of diagnostic options makes it difficult to treat COVID-19 and other respiratory diseases. CLEAR aimed to help develop laboratory capacities in Ghana by providing laboratory equipment for molecular diagnostics and training laboratory personnel. It also identified risk factors associated with post-acute COVID-19 (long COVID), providing important health data that until now have mainly only been available for the Global North.

**Duration:** 2021 to 2023**Implementation:** BNITM, KCCR**Region:** Sub-Saharan Africa**CORRAL****COVID-19 Response and Recovery Alliance for Montenegro and the Western Balkans**

In the Western Balkans, few people were vaccinated against COVID-19. Excess mortality rates were high, and the pandemic took its toll on public healthcare systems. As well as providing additional laboratory capacities for molecular diagnostics and genome sequencing of SARS-CoV-2 in Kosovo and Montenegro, CORRAL organised a transnational workshop on genomic surveillance with participants from six countries in the West Balkan region. It also set up transnational training exchange between health care professionals in hospitals in Germany and Montenegro, in order to build clinical capacities for treating acute cases of COVID-19.

**Duration:** 2021 to 2022**Implementation:** RKI, Charité, KCCG, IJZCG, WHO Country Office Montenegro**Region:** Western Balkans

### COVIDSeq\_Net

#### Application of Sequencing Technology to Elucidate SARS-CoV-2 Introduction and Dispersion in Mozambique

Sequencing pathogen variants and understanding their genetic characteristics is crucial to understanding the COVID-19 pandemic and to implementing targeted measures to contain infection. In order to gain a first impression of the SARS-CoV-2 pathogens that were in circulation in Mozambique, COVIDSeq\_Net introduced next-generation sequencing (NGS). The project's long-term goal was to develop national guidelines for using NGS technology.

**Duration:** 2021 to 2023

**Implementation:** FZB, INS

**Region:** Sub-Saharan Africa

### COVIMPACT Hepatitis

#### Assessing the Impact of the COVID-19 Pandemic on Viral Hepatitis B and C Elimination Efforts in Eastern Europe and Central Asia

In recent years, a large part of available resources has been channelled into containing the COVID-19 pandemic and its consequences. In some cases, this had a lasting negative impact on the fight against other diseases such as hepatitis B and C. COVIMPACT Hepatitis aimed to identify the pandemic's impact on viral hepatitis control in several Eastern European and Central Asian countries, and develop strategies to strengthen control programmes during and immediately after the pandemic.

**Duration:** 2021 to 2023

**Implementation:** RKI, WHO  
EURO, RIV Tashkent, Uzbekistan

**Region:** Eastern Europe, Central Asia

### FUTURE International UZB

#### Strengthening Clinical Management of COVID-19 Patients Using Telemedicine and Web-Based Learning

The COVID-19 pandemic highlighted the importance of safeguarding the availability of high-quality intensive medical care services. This project strengthened the quality of intensive medical care in several clinics in Uzbekistan by training doctors to manage and treat COVID-19 patients. In this way, as well as helping improve patient care, reduce mortality and bring about shorter COVID-related hospital stays, it has had a positive impact on standard care.

**Duration:** 2021 to 2023

**Implementation:** RKI, MoH  
Uzbekistan, RRCM, Charité

**Region:** Central Asia

## FUTURE International UGA

### Strengthening Intensive Care Treatment of COVID-19 Patients in Hospitals Under Pressure in Uganda Using Online Training

In line with the FUTURE International UZB project in Uzbekistan, the project set itself the goal of implementing the telemedicine concept with partners in Uganda, in order to relieve the burden on intensive care services. Via online seminars and case discussions, the project provided doctors with practical training in managing and treating COVID-19 patients.

**Duration:** 2021 to 2023

**Implementation:** RKI, MakHS, Charité

**Region:** Sub-Saharan Africa

## NaLaA

### Natural Language Processing for Event-based Surveillance with Africa CDC

The NaLaA project used artificial intelligence (AI) to monitor the COVID-19 pandemic. An event-based surveillance (EBS) helps monitor news broadcasts and social media, for example, to gain information on current incidence of the disease. In this context, the project conducted EBS training in the region with project partners. Activities focussed on signal detection using Twitter data. The aim is to incorporate this detection method into the open-source system used by Africa CDC, which will feed into Africa-wide surveillance.

**Duration:** 2021 to 2023

**Implementation:** RKI, Africa CDC, ProMed, ISID, HISP South Africa

**Region:** Sub-Saharan Africa



**PharmTrain – Corona Global****Drug Regulation in Health Crises:  
Developing a Framework for the Regional Implementation of a Risk-based  
Procedure for the Evaluation of Unapproved Drugs (WHO-EUL) for Southern Africa**

Regulatory authorities ensure the quality, safety and efficacy of medicines. Rapid access to medicines is particularly important in times of health crises. In cooperation with eleven regulatory authorities in the Southern Africa Development Community (SADC), the project developed a regional framework that sets out standardised procedures for fast-tracking marketing authorisations for medicines in emergency situations. This framework improves crisis preparedness in a targeted manner, increases the efficiency of authorities through regional harmonisation and paves the way for introducing country-specific regulatory guidelines.

**Duration:** 2021 to 2023**Implementation:** BfArM, Drug regulatory authorities in the SADC region, SADC MRH Secretariat, AUDA-NEPAD (supporting role), WHO (supporting role)**Region:** Sub-Saharan Africa**SESS – A+C****Supporting Epidemiological and Serological Studies on COVID-19 in Project  
Countries: Health Care Worker and Infection Control Investigations**

The COVID-19 pandemic has placed an additional strain on medical staff in recent years. This project assessed the extent of this burden among health care workers in Burkina Faso and Uzbekistan. It also identified suitable infection prevention and control measures to reduce the strain of SARS-CoV-2 infections and other risk factors in the future.

**Duration:** 2021 to 2023**Implementation:** RKI, Centre Muraz, MoH Uzbekistan**Region:** Sub-Saharan Africa, Central Asia

**TB-COVID****Strengthening the Capacity of National Tuberculosis (TB) Programmes in West and Central Africa to Monitor and Mitigate the Impact of COVID-19 and Future Global Health Emergencies on TB Service Provision**

The COVID-19 pandemic has absorbed significant health care resources and had a negative impact on tuberculosis (TB) programmes in West and Central Africa. To counteract this impact on TB control, this project developed a digital platform with indicators to identify disruption to TB care caused by a public health emergency. These indicators will be incorporated into national preparedness and response plans, thereby helping to continue the trend of falling TB mortality.

**Duration:** 2021 to 2023**Implementation:** RKI, WHO Global TB Programme, WHO-TDR, WARN-TB/CARN-TB, UiO/HISP**Region:** West and Central Africa**TIP-Bangladesh****Barriers and Drivers to Routine Childhood Vaccination and Future COVID-19 Adult Mass Vaccination in Forcibly Displaced Myanmar Nationals (FDMN)/Rohingya Refugees in Cox's Bazar**

Although effective vaccines against many diseases have been available for decades, they are not always accepted by the population. This is also evident in the forcibly displaced Myanmar nationals (FDMN)/Rohingya refugee camps in Cox's Bazar in Bangladesh, where there are repeated outbreaks of preventable diseases. Basing its approach on social science theories, the project collected qualitative and quantitative data as evidence for targeted interventions to increase childhood vaccination rates. A systematic literature review was also conducted to identify barriers and drivers to COVID-19 vaccination uptake among adult FDMN/Rohingya in Cox's Bazar.

**Duration:** 2021 to 2023**Implementation:** RKI, WHO Emergency Sub-Office in Cox's Bazar, WHO Country Office Bangladesh**Region:** South Asia

# Looking to the future

## Review of activities to date

Following its launch in 2016 with 15 projects, the Global Health Protection Programme (GHPP) has gone from strength to strength. Together with international partner organisations, the German institutions involved in the programme implemented 55 projects over seven years. The GHPP's growth underlines the increasing importance of global health at policy level, both in Germany and internationally.

### Expertise

Under the GHPP, highly skilled German institutions apply their expertise and know-how to help prevent and manage health crises worldwide, against the backdrop of steadily rising demand. The cooperation arrangements forged as a result tap into the programme's expertise, giving rise to sustainable, needs-based projects. By collaborating with regional and international organisations, such as the WHO, the projects are also integrated into regional and international strategies, helping to achieve their overarching objectives.

### Focus on partnership and cooperation

Many GHPP projects form partnerships between public health institutions in Germany and in project countries that perform similar tasks in their national contexts. For example, the Federal Institute for Drugs and Medical Devices (BfArM) – the federal authority responsible for ensuring the safety of medicinal products in Germany – cooperates with authorities in West Africa that have a similar remit. This interinstitutional cooperation ensures that joint activities are based on a spirit of partnership, both within the institutions and between the participating actors themselves. Through cooperation, the German and project country institutions grow international networks, fostering relationships that extend well beyond project completion. One of the many advantages of networking is the ability to share information that can be used to respond to global crises. During the COVID-19 pandemic, this benefitted both German and international partner organisations alike.

### International structures in modern institutions

Thanks to the GHPP, participating institutions in Germany have also improved their international structure and expertise. Global networks, international experience and international measures are essential if modern, sustainable public health institutions are to work successfully and maximise the protection of their population's health.

### Seamless integration of research findings

Another special feature of the GHPP is the link between research, capacity development and international cooperation for sustainable development. Research during the first phase revolved around application-based issues. It comprised systematic analysis along with implementation and accompanying research, for example on the development of diagnostics, the use of drugs and vaccines, and outbreak control. Research findings were directly incorporated into project activities, and have provided evidence for health policy action and the strengthening of public health systems.

### Evaluation of the GHPP

An evaluation of the GHPP and its projects was conducted in 2019, three years into the first phase. PHINEO gAG – an independent consultancy – surveyed GHPP project staff in Germany and in project country organisations and authorities about the programme, their projects and cooperation in general. The study aimed to establish how the GHPP could be improved and developed further, based on the experiences of the people involved in the projects up to that point. Many of the study's findings were incorporated into implementation of the second phase, which started in 2023.



## The GHPP continues...

The GHPP's second support phase began in January 2023 with 39 projects, many of which build on experiences, activities and partnerships forged during the first phase.

The programme's thematic priority areas were fine-tuned for the second phase, enabling institutions to demonstrate their particular strengths and expertise at a global level.

The new priority areas are:

- Strengthening of public health systems
- Outbreak management
- Surveillance and reporting
- Infection prevention and control
- Laboratory diagnostics
- Clinical management
- One Health (early detection and containment of zoonoses)
- Digital solutions
- Capacity development in the field of regulation and research
- Implementation of new resolutions and international agreements

## Strengthening international health care systems – an ongoing task

The Sustainable Development Goals were adopted by the United Nations in 2014. A mid-term review of progress conducted in 2023 was sobering, however, revealing significant challenges. The many crises that have occurred in recent years have at least partially cancelled out many advances, with SDG 3 'Good Health and Well-Being' being particularly affected. This was due to the COVID-19 pandemic and international conflict absorbing significant health sector resources.

To achieve the goals on time, there is still an urgent need to strengthen healthcare services worldwide. The GHPP is one of the German Government's key instruments for building health-care systems in project countries. Over the past seven years, the programme has clearly demonstrated how the expertise of German institutions in cooperation with partner organisations helps to ensure that we are all better prepared for future epidemics and pandemics.

# Glossary

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**Antimicrobial resistance (AMR)**

The ability of a microbe to resist the effects of antimicrobials, making the treatment of infections more difficult.

**Centre for Disease Control (CDC)**

National public health centres or agencies that work to protect the public's health by preventing and controlling diseases, with a focus on infectious diseases.

**Burden of disease**

The impact of a health issue in terms of mortality, morbidity, costs and other indicators.

**One Health**

A multidisciplinary, integrated, unifying approach that focuses on interdependence between humans, animals and the environment and supports interdisciplinary cooperation.

**Public Health**

A specialised field that deals with the health of the population, in particular with preventing disease and promoting, protecting and improving health.

**Sequencing/genome sequencing**

A procedure that determines the genetic code or order of certain building blocks in an organism, such as deoxyribonucleic acid (DNA), ribonucleic acid (RNA) and proteins, in order to obtain information about their molecular composition and how they function. Genome sequencing refers specifically to determining the exact sequence of heritable information from DNA or RNA.

**Surveillance**

The systematic and continuous monitoring, collection, analysis and interpretation of health data to monitor the occurrence and spread of disease and initiate control measures.

**Zoonoses**

Diseases that can be transmitted between animals and humans.

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