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SWISS TPH STRATEGY 2025–2028

Directorate

Swiss TPH
Swiss Tropical and Public Health Institute
Schweizerisches Tropen- und Public Health-Institut
Institut Tropical et de Santé Publique Suisse
Associated Institute of the University of Basel

CONTENTS

1. PURPOSE, VISION AND MISSION

The Swiss Tropical and Public Health Institute (Swiss TPH), founded in 1943, is a public institution based on the local and federal laws of Switzerland. Swiss TPH is one of five **associated institutes of the University of Basel**. Since 1 January 2017, Swiss TPH is governed under a **bi-cantonal treaty of Basel-Stadt and Basel-Landschaft**. At the national level, the **State Secretariat for Research, Education and Innovation (SERI)** provides oversight of the scope of work of Swiss TPH. Upon request by SERI, a performance agreement ("Leistungsvereinbarung") between the University of Basel and Swiss TPH has been re-negotiated to more clearly define roles and responsibilities. This performance agreement became effective on 1 January 2022. Swiss TPH also holds a strategic alliance with the **École Polytechnique Fédérale de Lausanne (EPFL)**.

The **headquarters** of Swiss TPH is located at Kreuzstrasse 2 in Allschwil, Switzerland, in a modern, multi-functional building in a bustling life science and biotechnology cluster in the BaseLink area, where the Switzerland Innovation Park Basel Area Main Campus is situated. The official inauguration of the new Swiss TPH headquarters took place on 1 April 2022 under the patronage of SERI (state secretary Prof. Dr. Martina Hirayama), the education departments of the two cantons of Basel (Ms. Monica Gschwind and PD Dr. Conradin Cramer) and the University of Basel (vice-president of research, Prof. Dr. Torsten Schwede). On 17 June 2023, Swiss TPH organised an Open House that attracted more than 6,000 visitors.

Swiss TPH's Centre for Tropical and Travel Medicine provides travel advice, vaccination and medical consultations and is currently located at Socinstrasse 55 in Basel. In early 2024, the centre will move to Aeschenplatz 2, centrally located in Basel.

1.1 Purpose

For 80 years, Swiss TPH has pursued a three-pronged approach consisting of **research**, **education** and **services** with the overarching goal of improving people's health and well-being. Over the past 25 years, Swiss TPH has grown considerably and expanded its portfolio of activities in infectious diseases, non-communicable diseases, public, environmental and occupational health, implementation science and health systems research and global health. In 2022, Swiss TPH had a portfolio of more than 350 active projects in 119 countries. Thanks to deeply rooted **partnerships** that are based on mutual trust, Swiss TPH is an internationally renowned institute that covers the entire value chain from innovation and validation to application to advance global health (**Figure 1**).

Research aims to provide new insights into the mechanisms of infectious and non-communicable diseases and to deepen the understanding of risk factors. This includes basic research in infection biology, developing and validating new diagnostics, drugs and vaccines in different settings and systems, understanding the impact of climate change on the environment and human health, and improving translational outcomes and the implementation of health-promoting interventions.

Education and training aims to provide tailored programmes for students, healthcare providers and future public health leaders so that they can address the most pressing global health issues. Mutual learning is at the core of Swiss TPH's education and training activities at the Bachelor, Master, Doctorate and professional postgraduate level.

Services aim to strengthen health systems and improve health service delivery, placing particular emphasis on low- and middle-income countries (LMICs). Swiss TPH serves as national reference centre for tropical and travel medicine, provides a reference diagnostic laboratory for human

parasitic diseases and increasingly supports “services-for-research” projects. Swiss TPH hosts three World Health Organization (WHO) Collaborating Centres and serves as a preferred partner for pharmaceutical companies[1].

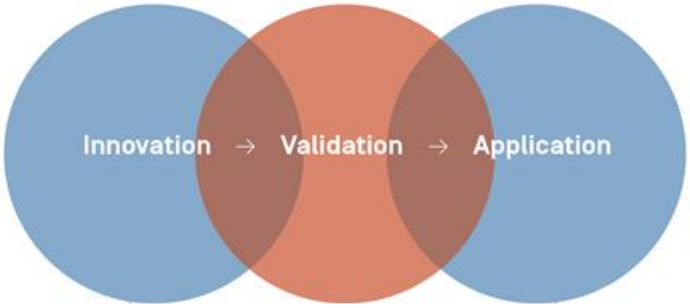

Figure 1. Swiss TPH covers the entire value chain from **innovation** (discovering novel diagnostics, drugs and vaccines, and developing new approaches and tools), to **validation** (generating evidence in the field and under real-world conditions) to **application** (integrating new treatments and approaches into policy and health systems).

Swiss TPH operates locally, nationally and internationally and has three main sources of core funding:

- State Secretariat for Education, Research and Innovation (SERI);
- Governments of Basel-Landschaft and Basel-Stadt; and
- University of Basel (through a performance agreement).

With **core funding of less than 25%**, Swiss TPH heavily relies on competitively acquired third-party funding, such a research projects, consultancies and service mandates from a wide array of agencies, foundations and philanthropy. The most important clients and funding bodies over the past several years were the Swiss Agency for Development and Cooperation (SDC), the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Swiss National Science Foundation (SNSF), the Bill & Melinda Gates Foundation (BMGF) and the European Union (e.g. Horizon Europe Programmes and European and Developing Countries Clinical Trial Partnerships, EDCTP).

For the upcoming 4-year strategic period 2025-2028, Swiss TPH is working towards higher and more sustained core contributions from the three main funders. In line with the recommendations put forth by the External Review Board (ERB), **core funding should contribute at least one third of the overall budget**.

Swiss TPH is committed to the achievement of the **2030 Agenda for Sustainable Development**, placing particular emphasis on Sustainable Development Goal (SDG) 3 “Ensure healthy lives and promote well-being for all at all ages” and Universal Health Coverage (UHC).

1.2 Vision

The vision of Swiss TPH is: “**To make the world a healthier place**”.

1.3 Mission Statement

Since the founding in 1943, the mission statement of Swiss TPH is: “**We aim to improve the health and well-being of people locally, nationally and around the globe**”.

[1] See Annex 2

1.4 Values[2]

Four values sustain the culture and further the mission of Swiss TPH: **courage, integrity, passion** and **respect**. The values are firmly anchored in all aspects of work, and the institute aspires to embody these values as well as hold peers and partners accountable. Swiss TPH's values are central to how the strategic goals are pursued, and demonstrate what it truly means to work and study at Swiss TPH.

Courage

Daring to be bold and take chances.

Integrity

Doing what is right even when it is hard.

Passion

Harnessing our enthusiasm to make an impact.

Respect

Valuing others and embracing differences.

2. STRATEGIC GOALS

Swiss TPH pursues three strategic goals: (i) **excellence in science**; (ii) **taking science to impact**; and (iii) **mutual learning for sustainable development**.

2.1 Excellence in Science

We generate knowledge on disease- and health systems and develop new tools and interventions.

Swiss TPH pursues basic, translational and implementation science. The research ranges from the laboratory and desk to the field and bedside, addresses infectious and non-communicable diseases, focuses on molecules, genes, cells, individuals, communities and populations, uses modern digital approaches, and cross-fertilises methodologies and mixed methods across different diseases in various social-ecological systems.

Long-standing partnerships[3] built on mutual trust are a central feature of Swiss TPH's activities and impact. Excellence in basic science, coupled with a vast experience in personalised, public and global health, are Swiss TPH's key assets to deepen the understanding of disease- and health systems in different environmental and socio-cultural contexts, and to help discover new diagnostics, drugs, vaccines and other interventions to improve global health.

Aspired outcome #1: By the end of 2028, Swiss TPH is among the top 5 research institutions in global health worldwide.

[2] The values were developed in an iterative process between the Directorate and the Heads of Units in 2021 and 2022. This set of values is a synthesis of leadership values developed by the Directorate, the institute's code of conduct and the guiding principles that were elaborated for the strategy period 2021-2024. The culture will be monitored every second year within the frame of the employee engagement survey (EES), criterion 2 (organisational culture and leadership).

[3] See list of long-term partnerships in Annex 2.

2.2 Taking Science to Impact

Swiss TPH informs health policies, strengthens health systems and implements tools and interventions for high-quality health services and public health at a local, national and global level.

Based on its broad experience and proven track record in cutting-edge research, capacity strengthening and implementation, Swiss TPH constantly innovates, validates and applies new interventions in a systems approach to improve the health and well-being of individuals, communities and populations. Interventions are data-driven, evidence-based, rigorously validated and ethically approved before any broader role-out. Swiss TPH guides global health action through a process of partnership, capacity strengthening, dialogue, mutual trust and service delivery, striving for equity, inclusion and diversity.

Swiss TPH is a national reference centre for the diagnosis of parasitic diseases and provides travel advice, treatment and vaccination. WHO, among other organisations, recognise Swiss TPH as a hub for policy research, advice and dissemination. Swiss TPH hosts three of the approximately 800 WHO Collaborating Centres worldwide. Additionally, due to the long-standing partnerships in many of the countries where it operates, Swiss TPH frequently contributes to policy development for Ministries of Health and other key stakeholders.

Aspired outcome #2: By the end of 2028, at least three emerging thematic priorities in global health have been identified and innovative approaches developed to mitigate these issues.

Aspired outcome #3: By the end of 2028, confirmation of Swiss TPH's standing as the premium centre for tropical and travel medicine in Switzerland for travellers and clinicians alike.

2.3 Mutual Learning for Sustainable Development

We share knowledge and practical expertise with partners, students, professionals, beneficiaries, organisations and society.

Swiss TPH operates in a spirit of mutual learning for sustainable development and strengthens capacity at the level of individuals, institutions, systems and networks. Our employees are keen learners, educators and trainers and share discoveries, innovations, knowledge and practical expertise with students, partners and other stakeholders. In turn, this process drives excellence in research and education and spurs innovation and sustainable development.

Aspired outcome #4: By the end of 2028, Swiss TPH is a centre of excellence for capacity strengthening and competence-oriented learning for sustainable and equitable public and global health.

3. STRATEGIC TOPICS AND CORE COMPETENCIES[4]

The innovative potential of Swiss TPH is rooted in a set of **Core Competencies (CCs)**. Eight CCs facilitate work and increase effectiveness with regard to the three strategic goals (see chapter 2) and the five cross-cutting **Strategic Topics (STOs)**. The STOs also reflect key emerging themes in global health and, together with the CCs, are linked to the 2030 Agenda for Sustainable Development with the 17 SDGs. The broad and comprehensive set of CCs are constantly evolving in response to the most pressing global health issues (**Figure 2**).

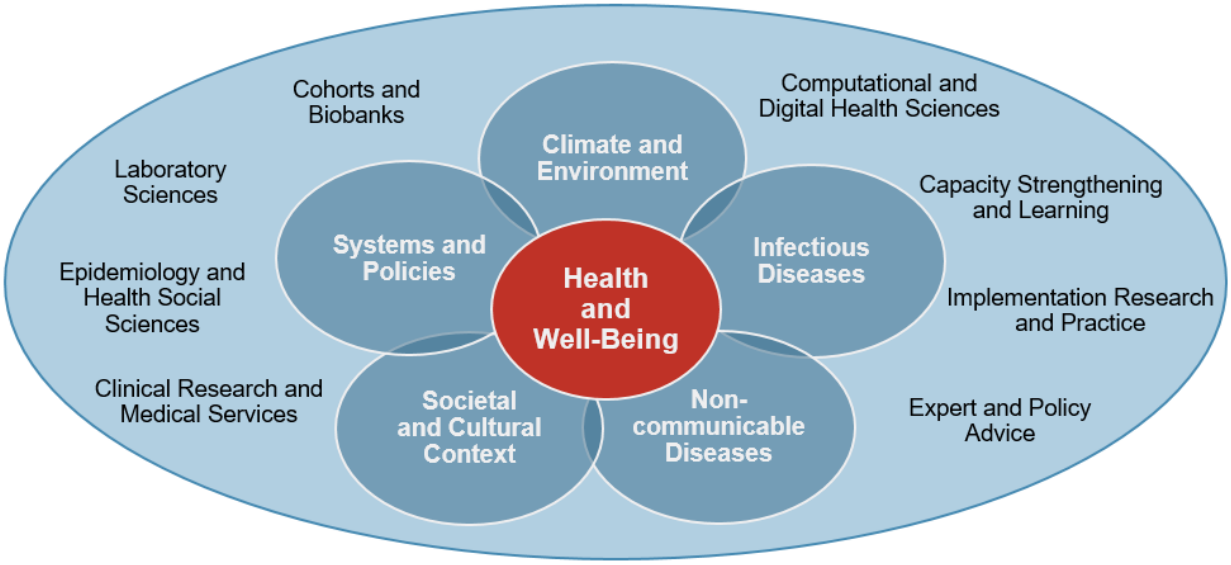

Figure 2. Swiss TPH core competencies (CCs) and strategic topics (STOs) to improve health and well-being in a sustainable and equitable manner.

Progress towards achieving the strategic goals is monitored through a set of clearly defined qualitative and quantitative indicators and measurable outputs for each STO and CC that are regularly reviewed and refined.

3.1 Strategic Topics

3.1.1 Climate and Environment

Swiss TPH is a centre of excellence that undertakes transdisciplinary and action-oriented research, addressing increasing major global health challenges at the interface of climate change, environment and health.

Climate change and extreme weather events are increasingly affecting health (physical and mental) and well-being in all regions of the world, and the risks are projected to increase with further global warming. Indeed, climate change is considered to be the most important threat to

[4] Strategic objectives and expected 4-year outputs of the STOs and CCs are summarised in Annex A1. All STO and CC teams have collaboratively developed a vision with key stakeholders. The way to implement the vision was described in the logic of a "theory of change" as the chosen framework. It presents a comprehensive description of how and why the outlined change within the STOs and CCs is expected to materialise over the 4-year strategy period. The theory of change is focusing on building the link between what an STO or CC does in terms of activities or interventions and how this leads to the desired strategic outcome.

public health in the 21st century. Environmental pollutions, large-scale environmental disruptions and complex chemical and physical damages to biodiversity and ecosystems are affecting life on land and in oceans, particularly threatening health of humans, plants, animals, ecosystems and the whole planet. Climate and environmental threats are overlapping and compounding with many other challenges, including climate related migration and potential conflicts, particularly hitting the most vulnerable people and places, jeopardizing the past progress on global health, therefore requiring approaches that are more integrated and innovative public health solutions.

There is a pressing need for a deeper understanding of the complex links between climate change and health and well-being in changing environmental, economic, social and cultural systems. To address this, Swiss TPH will develop new research methods, promote integrated approaches and strengthen capacity building for institutions and individuals to face the climate and environmental health challenges, from research to action. Swiss TPH will involve communities and relevant institutions in partnerships, co-production of knowledge and implementation of sustainable activities.

Swiss TPH supports and sustains cutting-edge research on complex links (threats and benefits) between climate, environment, society, nutrition health and well-being using integrated approaches (e.g. integrated impact assessment, ecohealth, One Health and planetary health), considering exposures and vulnerabilities to prepare for future health system challenges. Swiss TPH initiates and promotes innovative new education and training tracks on the climate-environment-health nexus, and capacity strengthening programmes at both individual and most importantly institutional levels. Swiss TPH supports multiple channels of communication, stakeholder engagement, science-policy dialogue, public health intervention projects and programme implementation and collaboration with other emerging global environmental and health initiatives, considering policy and legal frameworks, for mitigation, adaptation and strengthened resilience of health systems, with a particular focus on the most vulnerable zones and population groups are considered.

3.1.2 Infectious Diseases

Swiss TPH contributes to the control of infectious diseases by generating new disease knowledge and evaluating interventions. This knowledge then develops innovative, sustainable and situation-adapted control tools, interventions and strategies, as well as promotes multidisciplinary collaboration with key stakeholders.

Infectious diseases are highly relevant causes of morbidity and mortality worldwide. The recent COVID-19 pandemic and the growing threat of antimicrobial resistance (AMR) highlight the importance of researching infectious diseases for global health. Since its start 80 years ago, Swiss TPH has focused on infectious diseases that disproportionally affect marginalized populations in LMICs. As climate change and population expansion increasingly associate with urbanization, social-ecological disruption and migration, vector-borne diseases like dengue, tuberculosis, new potential pandemic viruses as well as drug-resistant pathogens will emerge, while malaria and many neglected tropical diseases will continue to affect those living in poverty.

Due to its multidisciplinary expertise, Swiss TPH is in a unique position to contribute to the control of current and future infectious disease challenges in a comprehensive and sustainable manner. At Swiss TPH, all key aspects can be addressed, ranging from basic and translational laboratory sciences, diagnostics and surveillance to product development, validation, implementation research and mathematical modelling as well as economic evaluation and policy advice. Moreover, Swiss TPH can rely on a global network of long-term national and international partners representing broad multidisciplinary and complimentary expertise.

Swiss TPH will continue to work on infectious diseases affecting those living in poverty, while further developing its focus on emerging and re-emerging diseases, including those caused by viral and drug-resistant pathogens. The mid- and long-term outcomes will be enhanced knowledge of the biology, immunology, transmission and epidemiology of these diseases, novel validated control tools, interventions and strategies, as well as up-to-date evidence-based policies and guidelines for improved control to reduce the global public health burden sustainably.

3.1.3 Non-Communicable Diseases

Swiss TPH improves the prevention and control of non-communicable diseases through innovative, affordable, sustainable and efficient approaches adapted to local contexts and promotes social equity.

Megatrends such as demographic aging and rapid epidemiological transition, climate and environmental change, urbanization and changes in living conditions (e.g. westernization of lifestyles including diets and eating habits), changes in social capital and social cohesion as well as geopolitical conflicts affect society's physical and mental well-being and contribute to increasing incidence of aging-related chronic diseases. Non-communicable diseases often need life-long and expensive treatments that challenge households and health systems; hence, they are the modern diseases of poverty on a global scale. Their prevention, their timely diagnosis, and their cost-effective treatment is a priority in the era of precision and high-tech medicine, which becomes increasingly unaffordable for many countries, households and individuals. The continuously high rates of non-communicable diseases in LMICs lead to a dual disease burden that requires integrated disease control measures.

Swiss TPH conducts research in the domains of non-communicable disease aetiology, screening and treatment. It develops, implements and analyses innovative interventions and programmes for non-communicable disease control at the level of individuals, households and health systems. Swiss TPH thereby harnesses and capitalises on its broad synergistic potential and translational science expertise.

Swiss TPH applies translational and transdisciplinary science and approaches towards innovative national and international policies and programmes that improve non-communicable disease control for all and will continue to do so in the future.

3.1.4 Societal and Cultural Context

Swiss TPH is a centre of excellence for health equity research and interventions, addressing societal challenges by engaging diverse people and communities.

Health inequities between and within countries are on the rise. Emerging and complex public health crises are a particular threat to the most vulnerable populations. Social determinants of health – above all poverty – are main drivers of poor health, and have to be addressed by society as a whole.

Understanding pathways of how social determinants of health affect health in different populations is important, placing particular emphasis on vulnerable and marginalized groups, including, among others, the role of income, education, social cohesion, stigma, discrimination and resilience. Tailored and inclusive social health protection approaches and sustainable financing of global and local public goods for health are needed to achieve universal health coverage (UHC). Social media and fake news undermine trust in science and are a challenge to health

communication, requiring flexible and innovative approaches to knowledge transfer. Preparedness for public health crises is key for efficient and informed crises response, bringing together multiple forces in society for research and implementation of public health measures.

As there is a need to develop context-specific guidance for policies and programmes, Swiss TPH will apply cutting-edge methodology for researching pathways of how social determinants affect health, and the societal forces that are required for change. Swiss TPH will pursue research, develop, implement and validate inclusive social health protection approaches that are tailored to the respective societies. Swiss TPH will investigate information flow in information networks and social media that will contribute to developing trusted platforms for health communication. Swiss TPH will pursue research-cum-action in fragile contexts and during public health crises, which require concerted efforts by multiple forces in society at the local and global level, inclusive of vulnerable population groups, such as high-risk groups, refugees or marginalised indigenous communities. Swiss TPH will expand established research partnerships with civil society organisations and involve citizens in research and implementation projects. Engaging civil society in transdisciplinary research or through citizen science will foster the sustainable integration of successful and promising approaches in programs and practices in both high-income contexts and in LMIC.

3.1.5 Systems and Policies

Swiss TPH promotes health in all policies and strengthens health systems to ensure evidence-informed interventions reach those in need.

Health systems deliver preventive, promotive, curative and rehabilitative interventions through a combination of public health and health service actions along the pyramid of health care facilities that deliver personal health care across both government and non-government actors. Wherever Swiss TPH works with governments, it facilitates multi-sectoral collaboration – recognising that many influences stem from beyond the health sector – and supports the development of evidence-informed policies for sustainable impact at the individual and population level. Swiss TPH applies a “systems thinking” approach to ensure stewardship, a well-trained and qualified workforce, functioning medicine and supply systems, health financing, information systems and the delivery of quality, respectful care.

Therefore, Swiss TPH promotes UHC and works to create an enabling policy environment that favours health and prevents diseases across their socio-economic, environmental and commercial determinants. Swiss TPH recognises that health systems are complex adaptive systems and evolve according to context, competing priorities and available resources. Nonetheless, it is only by working through systems that interventions designed to improve population health can be introduced, taken to scale and sustained. Along this understanding, we strengthen health service delivery and public health interventions. Swiss TPH engages at local, national and international level, fostering multi-sectoral collaboration, and engages those directly concerned: health workers, patients and the general public, being sensitive to gender, age, diversity and social inclusion.

3.2 Core Competencies

3.2.1 Cohorts and Biobanks

Swiss TPH is a centre of excellence for designing, implementing, maintaining and applying comparative long-term cohort studies with associated biobanks to translational research for evidence-based, sustainable and equitable global health.

The long-term health and well-being impact of megatrends and wicked problems, such as changes in living environments and conditions including climate change, exposure to chemicals, digitalization, or in societal cohesion and livelihoods can only be studied in the context of cohorts that are readily embedded in the general population. Cohort data are thus essential for evidence-based disease prevention and health promotion. This requires an infrastructure that – in parallel – also allows evaluating the long-term public health utility of medical innovations, public health interventions and the cost-effectiveness, quality and equity of the health care system and of health-related policies. General population cohorts are in direct and regular exchange with citizens, and hence, able to respect and integrate their needs and expectations.

Since many years, Swiss TPH is pursuing a comparative cohort strategy. Swiss TPH and its network of partners are running cohorts with associated biobanks in Switzerland and in selected LMICs and design and build the cohort in close collaboration with national research and policy stakeholders as well as citizens to assure the right data are collected, curated and utilized. The Swiss TPH cohorts and biobanks integrate with all CCs and provide all STOs with relevant data to capitalise on the information obtained. Cohort instruments combine nationally and internationally harmonised instruments and foster innovation. Biobanking infrastructure and processes as well as data capturing, processing and storage conditions are implemented according to national and international practice guidelines (e.g. Swiss Biobanking Platform; Swiss Personalized Health Network (SPHN); and Biobanking and BioMolecular Resources Research Infrastructure European Research Infrastructure (BBMRI-ERIC)) to assure high quality and data privacy.

Cohort participants are recruited from the general population and characterized with the help of interviews, innovative Apps and wearables, in-person examinations, conducted in close collaboration with local health systems, clinical partners, biospecimen sampling and imaging of organs. Data, images and biological samples obtained are analysed for improved understanding of well-being over the life course, disease and aging risks and mechanisms in the context of project grants and research consortia. The research infrastructures and information obtained from the comparative cohorts will promote institutional and cross-disciplinary development of partner networks and provide unique opportunities for careers of young talents from different research domains. Evidence obtained and expertise gained from the cohorts and biobanks are brought into policy planning, systems evaluation, education and training and capacity strengthening.

3.2.2 Laboratory Sciences

Swiss TPH develops and fosters broad expertise in laboratory-based biological and immunological research supporting basic and translational science and capacity strengthening, for infectious and non-communicable diseases with a particular emphasis on diseases of poverty.

Broad expertise in laboratory-based biological and immunological research is highly relevant to support basic and translational science as well as capacity strengthening in the field of infectious and non-communicable diseases. Laboratory-based expertise is a fundamental component in supporting the multidisciplinary expertise areas at Swiss TPH, and contributes by providing molecular tools for epidemiological studies and diagnostic techniques for clinical trials, as well as maintaining high-level basic research expertise.

With constant adaptation of methodologies developed to real-world needs and by addressing clinically relevant research questions, laboratory science promotes internal and external collaborations to enhance research outputs of Swiss TPH, and improves health worldwide.

Swiss TPH harbours a wealth of competence in the field of laboratory science due to its modern infrastructure and collective expertise. Facilities include a worldwide unique collection of parasite life cycles that are maintained using standard operating procedures. The life cycles are linked to drug discovery and development and diagnostic reference test development. Swiss TPH conducts world-leading research in tuberculosis, malaria, viruses and helminths. Swiss TPH maintains highly specialised vector biology facilities that are linked with international vector biology research in our partner institutions at the Ifakara Health Institute (IHI) in Tanzania and the Centre Suisse de Recherches Scientifiques en Côte d'Ivoire (CSRS). Swiss TPH hosts a fully accredited national diagnostic reference laboratory for tropical and travel related diseases, next-generation sequencing (NGS) platform at Swiss TPH and in Tanzania with antimicrobial resistance (AMR) activities and outbreak surveillance potential, and have senior staff and students with a broad range of expertise in education, research and innovation.

3.2.3 Epidemiology and Health Social Sciences

Swiss TPH excels in innovating, applying and promoting the best possible combination of methodological approaches grounded in different disciplinary perspectives to understand the occurrence, causes and determinants of local, national and global public health problems, and to identify effective, equitable, just and sustainable solutions in a rapidly changing world.

Population health at local, national and global levels is shaped by social, cultural, ecological, economic and political contexts, as well as human and pathogen biology. Sustainable improvements in population health must be based on an in-depth understanding of these contextual dimensions. Rapid and sometimes fundamental changes in social, ecological, economic and political conditions require a deepened understanding of the reasons why certain changes do or do not occur, how they may play out in the future, and how they affect people's health and well-being. Single-disciplinary approaches often fail to capture the complexity of factors contributing to illness, health and well-being, an issue that is also increasingly recognised by funding agencies and scientific research bodies.

Scientific approaches that combine different methodologies are urgently required to monitor, understand and address health problems and strengthen population health in increasingly complex and rapidly changing environments. Quantitative, qualitative and new innovative data analysis methods are needed that make the best use of different and newly emerging data sources, such as routine health system data or data from social networks. Whenever possible, communities and citizens should be involved from the very beginning in transdisciplinary research and interventions.

By applying and promoting different epistemological approaches and an innovative mix of methods from various scientific disciplines, conscious of historical experiences and contexts,

Swiss TPH will contribute to high quality research, strengthened interdisciplinary research capacity, and sustainable solutions to current and future health problems.

3.2.4 Clinical Research and Medical Services

Swiss TPH is a centre of excellence for clinical research, including clinical trials and observational studies primarily focused on low-resource settings. Swiss TPH is a world-leading organisation in translational medicine and evidence-based patient care.

Drugs, diagnostics, vaccines and vector control represent major health care interventions for infectious and increasingly non-communicable diseases worldwide. Swiss TPH performs high-quality evaluations and generates evidence on the performance or efficacies of these clinically relevant interventions to provide measurable impact in preventing death and improving health globally. Currently, in light of inequity, LMICs are insufficiently involved in research and development (R&D) of, and access to, essential medical interventions. Swiss TPH aims to make a difference thanks to established and productive partnerships.

The unique multidisciplinary expertise at Swiss TPH supports the development of clinical study capacity in LMICs, especially clinical research partnerships and platforms. Swiss TPH and its network of partners combine valuable expertise in diagnostic, drug and vaccine development, as well as academic and regulatory trial expertise. The established Swiss TPH diagnostic capacity currently covers diagnostic services for hospitals and physicians and increasingly supports clinical epidemiological studies and trials. Establishing clinical expertise related to common diseases in LMICs, such as tuberculosis, malaria, schistosomiasis and other neglected tropical diseases, as well as non-communicable diseases, is pivotal to achieving the UN Sustainable Development Goals.

These efforts are continuously augmented through tailored training and integration of data management, quality management, clinical trial design and/or clinical pharmacology into the platforms. By accelerating the development of these issues, Swiss TPH will contribute to improving individual and community health, and strengthen institutional clinical research capacity.

3.2.5 Computational and Digital Health Sciences

Swiss TPH leads the development and application of innovative computational approaches and digital tools to improve health outcomes for individuals and populations with a particular focus on LMICs.

Swiss TPH is a recognised provider of computational and digital health solutions in many fields of infectious diseases with a strong focus on malaria, neglected tropical diseases and non-communicable diseases, as well as clinical decision support systems. Swiss TPH can provide these services by fostering a sustainable environment for further developing capacity, leveraging established collaborations to enhance the application of computational methods and digital tools within projects, and increasing visibility, as witnessed during the COVID-19 pandemic. These initiatives will increase awareness and understanding of the potential of computational and digital health solutions and strengthen the capacity of our partners in the health sector to integrate them into their programming, which will lead to improved health services and outcomes.

3.2.6 Capacity Strengthening and Learning

Swiss TPH is a centre of excellence for capacity strengthening and competence-oriented learning for sustainable and equitable public and global health.

Switzerland is lagging behind in international goals for equity, diversity and sustainability as well as a diversity in the student body and faculty. With the COVID-19 pandemic, participation in life-long learning activities decreased, and especially individuals aged 50+ years and those with a migration background fell behind.

To increase the competitiveness of Swiss TPH's graduates and Switzerland as a leading innovation and economic force, it will systematically include the strengthening of digital competences, creativity, innovation and the development of an entrepreneurial mindset in teaching offers. Moreover, Swiss TPH will include sustainability and leadership knowledge, skills and attitudes in the curricula, assessments and evaluations. Swiss TPH will expand efforts to explore and implement digital and innovative pedagogical methods that will facilitate the acquisition of these competences. Swiss TPH will also implement an Open Science Desk that will support open access publications, research data and codes. Swiss TPH will introduce a major for Health Data Science in our MSc Epidemiology and aims to generate additional funds to support structural professorships for women. Swiss TPH will create scholarships for excellent international students from LMICs and will increase the international mobility of our students, scientists and lecturers through international internships leveraging our long-standing partnerships and networks. Swiss TPH will continue to increase the modularity and flexibility of life-long learning programmes tailored to the needs of employees and employers.

By 2028, Swiss TPH will have created a global community of students who excel as researchers, experts and leaders for digital transformation and sustainable change in public and global health. We will have delivered excellent teaching and training at graduate and post-graduate level for lifelong learning. Swiss TPH will have created a diverse teaching faculty fostering innovation, creativity, entrepreneurship, digitalization and sustainability. Swiss TPH will have innovated and advanced learning methods using digital and other technologies for enabling mutual learning. Swiss TPH will have created a rich and highly attractive learning environment, integrating the open-space and activity-based working design of our new headquarters with the emerging opportunities of digital and hybrid learning. Swiss TPH will have contributed to making science more accessible, inclusive, equitable and sustainable for the benefit of all. Swiss TPH staff will have collaborated with partners and alumni and institutional networks to create an interconnected, transnational knowledge society.

3.2.7 Implementation Research and Practice

Swiss TPH excels in implementation research and practice for achieving sustainable health impacts.

For achieving sustainable health impacts at the individual and population level, there is a need to establish actionable evidence along the value chain from innovation and validation to application. Implementation research and practice refers to the processes and activities involved in putting evidence-based practices, interventions, and policies into action and to sustain them over time. This essential process requires high quality applied research, contextual understanding, implementation skills as well as multi-level stakeholder approaches and iterative planning and implementation processes. A collaborative and supportive environment between researchers,

practitioners, and other stakeholders is the basis for these processes to be effective and sustainable.

3.2.8 Expert and Policy Advice

Swiss TPH provides evidence to inform policy advice and co-create best practices with relevant stakeholders, including communities, with a special focus on poverty alleviation, gender equality and equity.

Successful changes of policies, guidelines and regulations needs basic understanding of the needs, challenges and solutions. Good quality research and technical assistance can unveil key problems affecting community health as well as their underlying causes and social determinants.

Problems that tend to be masked or wicked by aggregated data or by lack of data (e.g. stigma, gender violence and mental health), are therefore brought to light. The knowledge generated, through robust methods and high quality data collection, is used to inform decision-makers at all levels as well as civil society at large to promote policies and practices that are effective and appropriate and at the same time discourage practices that are ineffective or harmful. Hereby, strong communication skills and effective dissemination practices are essential for carrying forward policy relevant findings to decision-makers and the general public.

With a mutual learning attitude, a productive and collaborative environment is achieved between students, researchers, partners, government and the population at large.

4. SUCCESS FACTORS[5]

Swiss TPH aims to be an attractive, fair, inclusive and inspiring employer within a multinational culture in an innovative environment with modern infrastructure. In a global context and taking megatrends into account, Swiss TPH collaborates with neighbours to promote a future-oriented ecosystem for the University of Basel, the life science cluster and biotech industries and their start-ups in the community of the BaseLink area in Allschwil and Basel. Swiss TPH's global network serves as a springboard to carry out its vision, mission and values into the world.

Swiss TPH is a key player in the national and global health sector, with the majority of research projects, service deliveries and education and training programmes being achieved through competitively acquired third-party funding. Strengthening the institute's success factors contributes to the implementation of the institute's strategy and to the achievement of the 2030 Agenda for Sustainable Development. This happens at the Swiss, European and global levels throughout the five STOs and the eight CCs. Swiss TPH has the ability to react to the ever-changing conditions and new challenges.

The success factors are critical to supporting Swiss TPH in achieving its overall goals and mission[6]. In the 2025-2028 strategy period, our main focus is on investing in the following six success factors (**Figure 3**).

[5] All the support management functions maintain separate strategies aligned with the overall strategy

[6] The strategy's implementation is closely monitored using an STO and CC excellence matrix, based on EFQM standards.

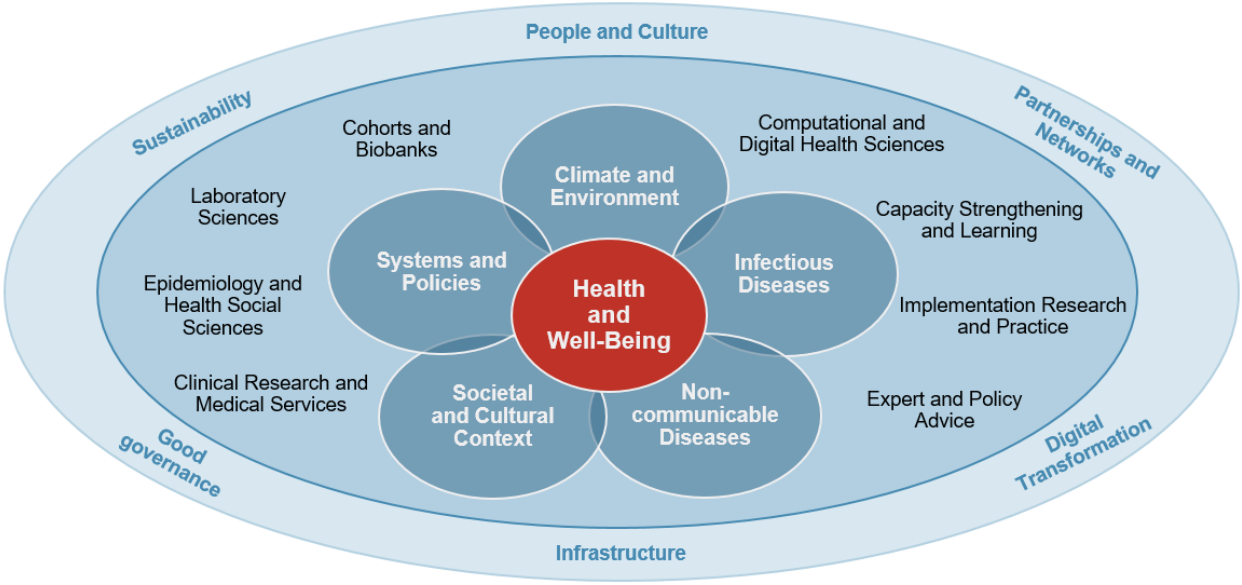

Figure 3. Success factors with efficient processes are crucial for Swiss TPH's backbone to sustainably maintain and develop STOs and CCs.

4.1 People and Culture

Swiss TPH employees and students with their diverse backgrounds and perspectives are the most important success factor. It is therefore Swiss TPH's responsibility to create an attractive and fair working environment where innovation and creativity can emerge Swiss TPH invests in an environment where employees and students feel safe and comfortable, and can excel under modern working conditions. Investing in the development of talent, encouraging diversity, equity and inclusion, and providing opportunities for professional growth and recognition are essential for attracting and retaining talents. Staff and students receive the best possible and affordable tools for their work, while Swiss TPH management utilizes vital data to steer the institute, fulfilling the common mission and ensuring economic stability. Swiss TPH has a zero-tolerance policy towards discrimination and condemns any form of discrimination, harassment or unequal treatment ("Tell-us system"). Challenges and needs of all employees and students are measured and continuously improved during the strategy period (e.g. biannual employee engagement survey).

4.2 Partnerships and Networks

Swiss TPH forms strategic alliances with other institutions, centres of excellence[7] and WHO at the local, national and international level. Projects, programmes and policies are developed in an inter- and transdisciplinary manner and are anchored in long-term, trusted partnerships. Swiss TPH has committed to the 11 principles for transboundary research partnerships elaborated by the Commission for Research Partnerships with Developing Countries (KFPE). Swiss TPH respects equity, ecological principles, the highest ethical, scientific and technical standards, and global human rights for access to health, education and other social services. Swiss TPH pursues all activities in a spirit of mutual trust, bringing together networks of research and public health experts in Switzerland and abroad.

[7] See Annex 2 for strategic alliances and partnerships, including global long-term partnerships

4.3 Digital Transformation

Swiss TPH ensures that employee and student can collaborate easily, efficiently and securely with their internal and external partners. This is achieved through optimal, efficient and comprehensive digital tools. Swiss TPH is committed to continuously empowering employees and students to enhance their digital skills.

The conscious handling of knowledge and experience is invaluable. Swiss TPH invests in optimising knowledge transfer and dissemination management. Newly produced knowledge and know-how is effectively managed, protected and actively shared within Swiss TPH as well as externally communicated.

4.4 Infrastructure

Swiss TPH aims to create ideal conditions and clear structures and processes in which new insights and innovative solutions to solve local, national and global health problems can be developed now and in the future. Swiss TPH will continuously invest in improving and modernising IT systems and infrastructure. Swiss TPH will ensure that the IT infrastructure is state-of-the-art, can adapt quickly to changing conditions and guarantees data integrity and security at the highest level.

Swiss TPH is dedicated to providing a high-quality and sustainable working environment and modern work equipment so that the various activities can be carried out with the highest quality and safety. To this end, Swiss TPH will continuously ensure the maintenance and modernisation of laboratories and equipment as well as future-oriented office concepts.

4.5 Good Governance

Good governance ensures that Swiss TPH operates transparently, ethically, and in compliance with the latest regulations. Establishing robust governance frameworks, including clear policies, procedures and ethical guidelines, helps maintain the integrity of research outcomes and protects against misconduct. Quality assurance mechanisms, such as rigorous peer-review processes, adherence to international standards and continuous improvement initiatives, are crucial for maintaining high research standards and credibility.

Strategic decisions are made by the Swiss TPH management and efficient processes are in place, readily taking recommendations from the External Review Board (ERB) and the European Foundation for Quality Management (EFQM) on board. Impact evaluations in the form of a sustainability report are based on the Global Reporting Initiative (GRI) standards. The Swiss TPH management system is regularly evaluated and certificated by EFQM.

4.6 Sustainability

Sustainable practices across all activities are vital for the long-term success and impact of Swiss TPH. Therefore, all of the research, implementation, teaching as well as administrational practices address and monitor societal challenges with the UN SDG framework to ensure a positive impact on society. Emphasising environmental sustainability through travelling, energy efficiency, waste reduction and responsible resource management helps minimize our ecological footprint.

5. ANNEX

A.1 Strategic objectives and expected outputs of Core Competences and Strategic Topics

The strategic objectives and expected 4-year outputs for the five **Strategic Topics (STOs)** and the eight **Core Competences (CCs)** have been elaborated through active collaboration with our key stakeholders. This iterative process took place during and after the **Project Leader Retreat** in January 2023. Indicators will be defined for all expected outputs and baseline measurements will be available before the start of the 2025-2028 strategy period.

To ensure the successful execution of the Swiss TPH Strategy 2025-2028, quality management is mandated to develop a monitoring an evaluation plan and document progress. Swiss TPH's performance is annually tracked on behalf of the Board of Governors to help steering the institute.

Strategic Topics

Climate and Environment

Strategic objective	Expected output
STO 1.1. Understanding exposures, vulnerabilities, observed impacts and projected risks for health and well-being associated with climate and environmental changes in complex social and cultural contexts	STO 1.1.1. Generated results on the climate change-environment-health nexus STO 1.1.1. Developed and established new theories and concepts of health capable of demonstrating synergistic benefits of integrated approaches
STO 1.2. Developing and using advanced research methods and tools for better understanding links and trends and integrated approaches for facing climate and environment related heath challenges, from research to action	STO 1.2.1. Generated new theories, concepts, methods, best practices and approaches on the climate change-environment-health nexus STO 1.2.2 Conducted case studies with integrated approaches in Africa (e.g. South Africa, Côte d'Ivoire, Ethiopia) and Latin America (e.g. Peru) STO 1.2.3 Established sustainable environmental health studies in Europe, including Switzerland STO 1.2.4 Developed and made us of innovative exposure assessment tools
STO 1.3. Contributing in finding and implementing multi-sectoral mitigation and adaptation responses and solutions for building climate-resilient and low-carbon health systems, healthy ecosystems and clean environments for better health and wellbeing	STO 1.3.1. Implemented projects on health adaptation to climate change and extreme events (e.g. heat, flooding, drought) and mitigating effects of environmental degradation and pollutions (e.g. water, soil and air pollutions, noise)
STO 1.4. Using multiple channels of communication with local communities and institutions, sustain stakeholder engagement, partnerships, science-policy dialogue, and improving policy and legal frameworks, with a focus on most vulnerable places and population groups	STO 1.4.1. Contributed in setting-up important partnerships and science-policy dialogues STO 1.4.2 Engaged in transdisciplinary co-production of knowledge between academic and non-academic actors for societal problem solving STO 1.4.3 Transferred knowledge from scientific community to the public
STO 1.5. Initiating and promoting innovative new education and training opportunities, capacity building programs at both institutional and individual levels, and dissemination of results and lessons, on the climate-environment-health nexus	STO 1.5.1. Contributed to training and education on climate change-environment-health nexus STO 1.5.2. Provided expertise, engaged in translational and policy activities, and contributed to dissemination activities, in Switzerland and on a global scale

Infectious Diseases

Strategic objective	Expected output
STO 2.1.Generating new knowledge on the biology, immunology, transmission, and epidemiology of infectious diseases	STO 2.1.1. New insights into the biology, immunology, transmission, and epidemiology of infectious diseases, in

	particular malaria, tuberculosis, schistosomiasis, Chagas and other neglected tropical diseases
STO 2.2. Utilizing new knowledge developing innovative new tools, interventions and strategies controlling infectious diseases	STO 2.2.1. New control tools, interventions and strategies
STO 2.3. Evaluating, validating and applying approaches for effectively deploying novel tools, interventions and strategies	STO 2.3.1 Validated approaches for the deployment of control tools, interventions and strategies
STO 2.4. Strengthening Swiss TPH capacity in basic and translational research of emerging viral diseases (such as COVID-19) and those caused by arboviruses (such as dengue)	STO 2.4.1. More basic and translational research outputs from studies focusing on emerging viral diseases
STO 2.5. Coordinating, further developing and enhancing the visibility of AMR-related activities across Swiss TPH	STO 2.1.5. Enhanced basic and translational research outputs, better coordination and more visibility of the AMR-related activities across the Institute

Non-Communicable Diseases

Strategic objective	Expected output
STO 3.1. Improving our understanding of the aetiologies and complex causal determinants of accelerated aging, impaired wellbeing, mental health and age-related chronic diseases as well as comorbidities; generating new and applying available evidence towards promotion of innovative health and wellbeing adapted to local contexts	STO 3.1.1. Produced novel understanding of causal aging, well-being, and disease determinants translated into innovative programs and policies for the prevention of age-related chronic disease and for the promotion of health and physical and mental well-being
STO 3.2. Identifying, evaluating, and implementing innovative non-communicable disease risk prevention, prediction and screening methods of personal and public health benefit, adapted to local contexts	STO 3.2.1. Number of identified novel biomarkers of personal and public health utility in non-communicable risk prediction STO 2.2.2. Number of evaluated and implemented programs for non-communicable diseases screening
STO 3.3. Identifying, evaluating, and implementing innovative non-communicable diagnostics, treatments and service delivery models of personal and public health benefit, adapted to local contexts	STO 3.3.1. Identified novel non-communicable diseases diagnostics and treatments and communication of policy relevant findings to the public STO 3.3.2. Implemented and evaluated non-communicable diseases diagnostics and treatments of utility STO 3.3.3. Number of non-communicable diseases control measures and service delivery models for non-communicable diseases control introduced, evaluated and sustained
STO 3.4. Capitalizing on the synergistic expertise and the broad knowledge and methods available at Swiss TPH for translational science maximizing impact in non-communicable diseases control	STO 3.1.4. Collaborations across units and departments to harness the full synergistic in-house potential for translational science toward innovative non-communicable diseases understanding and control
STO 3.5. Advocating for and promoting non-communicable diseases control by engaging in science-to-policy activities, as well as dissemination of education and training activities	STO 3.5.1. Applying scientific evidence, expertise, and innovation to policies and guidelines for improved non-communicable diseases control STO 3.5.2. Apply scientific evidence and expertise in education and training of future research, care and policy workforce

Societal and Cultural Context

Strategic objective	Expected output
STO 4.1. Developing and applying cutting-edge transdisciplinary approaches for researching key societal challenges for health, addressing context-specific guidance for policies and interventions	STO 4.1.1. Acquired and conducted innovative, transdisciplinary research projects on the intersection between social, cultural and structural determinants of health in different societies in the fields of (i) sexual and reproductive health; (ii) disease control and elimination (e.g. neglected tropical diseases, non-communicable diseases and vaccination); (iii) strengthening of sustainable healthcare systems; and

	(iv) non-disease-oriented interventions (community-driven interventions, health promotion and prevention, health literacy, UHC), globally and in Switzerland
STO 4.2. Studying societal challenges in global crisis contexts, including issues of forced migration and violence	STO 4.2.1. Conduct research on preparedness and crisis management relevant for implementation of mitigation measures in humanitarian contexts during disease outbreaks, or following other hazardous events
STO 4.3. Developing state-of-the art approaches studying knowledge production and circulation in the field of public health, including the study of social media	STO 4.3.1. Conduct research on knowledge production and circulation of health-related information considering social media and artificial intelligence, and its use in different groups (cultural, gender, race) in the population
STO 4.4. Studying social health protection at the regional and global level; developing, implementing and validating innovative solutions to close equity gaps	STO 4.4.1. Conduct research on the comparative effectiveness of different formal and informal social health protection such as health insurance systems or other supply- or demand-side financing approaches
STO 4.5. Considering diversity and inclusion at all steps of the innovation, application, validation cycle	STO 4.5.1. Fair and equitable collaborations in terms of gender and diversity within research and implementation teams are ensured through guidelines and other measures

Systems and Policies

Strategic objective	Expected output
STO 5.1. Swiss TPH applies multi-sectoral approaches and principles arising from system thinking to address humanity's major challenges including climate change and planetary health, global health security, pandemic responsiveness, urbanization, lifestyle and food systems	STO 5.1.1. Multisectoral policy advice (health in all policies) and systems thinking approaches have led to improved planetary and population health
STO 5.2. The impact of Swiss TPH activities on the health-related Sustainable Development Goals emphasizes synergies /reducing the dualism between global health security and Universal Health Coverage in health system strengthening efforts	STO 5.2.1. Effective contributions to progress towards Global Health Security and Universal Health Coverage are made
STO 5.3. Swiss TPH enhances the quality of health care services by improving the skills and knowledge of healthcare professionals through training and development programs, implementing evidence-based practices, and utilizing innovative technologies	STO 5.3.1. Innovative interventions have been embedded and sustained in health systems thereby contributing to improved quality of care and health service operations
STO 5.4. Swiss TPH's contribution to strengthening health systems (HSS) is visible at global, regional and national fora (e.g. World Health Summit, Health Systems Global, Social Health Protection Network - P4H, RBM Partnership to End Malaria, Global Health Initiatives, WHO collaborating centres etc.)	STO 5.4.1. Visibility of Swiss TPH in health systems and multisectoral policies is enhanced

Core Competences

Cohorts and Biobanks

Strategic objective	Expected output
CC 1.1. Maintaining and expanding Swiss citizen cohorts and biobanks established at Swiss TPH as a high quality research infrastructures of national value	CC 1.1.1. At least 5,000 Swiss cohort participants have been deeply characterized and phenotyped (data, bio specimens, images) and the information is available and applied internally and externally for translational research of high scientific and policy impact
CC 1.2. Implementing and maintain multigenerational cohorts of high quality in Lao PDR, Peru, and Côte d'Ivoire in sustainable partnership and allow for institutional strengthening, scalability and for knowledge transfer to additional countries	CC 1.2.1. At least 2,000 international cohort participants and their families have been enrolled, characterised (data, bio specimens) and sites' geographies, socio-ecological and societal conditions described and comparable information is available for analysis

CC 1.3. Applying cohort information, bio samples, and imaging in line with FAIR principles for generating scientific evidence on determinants and predictors of wellbeing, aging and diseases and of the course of health over the life course in specific geographic, legal, cultural, environmental, social, and health systems contexts	CC 1.3.1. Scientific output in the form of abstracts, presentations, policy-briefs, grants and peer-reviewed publications of high quality and impact is produced by Swiss TPH and non-Swiss TPH researchers from a broad range of domains
CC 1.4. Bringing cohort-derived evidence into health related policies and guidelines for impact and sustainable development	CC 1.4.1. Scientific evidence produced by Swiss TPH cohorts and biobanks is influencing local research agendas, health-related policies and practices and guidelines
CC 1.5. Making data, images, and bio samples accessible to applied and translational education and training, for young investigators careers, and for competitive grant applications at Swiss TPH and outside of Swiss TPH, nationally and internationally	CC 1.5.1. Swiss TPH and partner cohort data, bio samples are used in translational graduate and post-graduate education and training nationally and internationally and form the basis of career grants of young investigators at Swiss TPH and outside of Swiss TPH

Laboratory Sciences

Strategic objective	Expected output
CC 2.1. Maintaining, improving and developing the laboratory sciences and state-of-the-art facilities to support research in biology, immunology, transmission and translational aspects of infectious diseases	CC 2.1.1. Consolidation of research groups and equipment platforms
CC 2.2. Ensuring internal (Swiss TPH and external (national and international) visibility of our services, scientific expertise and platforms, increasing our attractiveness as partner of collaboration	CC 2.2.1. Increased internal and external collaborations potentiating the number of multidisciplinary, cross-institutional projects including industrial partners
CC 2.3. Providing a platform for strategic discussions and maximizing use of our services and expertise within the Swiss TPH partnership network.	CC 2.3.1. Strategic decisions and investments follow bottom-up discussions based on actual and mutual needs of laboratory scientists of all partners
CC 2.4. Increasing our attractiveness as employer for scientists to maintain and attract talents	CC 2.4.1. Reputation, financial and human resources, training and career opportunities, top-notch expertise and laboratory facilities
CC 2.5. Fostering innovation and application approaches for novel tools, interventions and strategies prioritizing drugs, diagnostics and vaccines for diseases of poverty	CC 2.5.1. Pre-clinical drug and vaccine candidates, new diagnostics entering clinical trials for FDA/EMA licensing

Epidemiology and Health Social Sciences

Strategic objective	Expected output
CC 3.1. Ensuring adequate senior level disciplinary expertise in all relevant areas, including epidemiology, biostatistics, health social sciences, health economics, and health systems research	CC 3.1.1. At least one structural position at senior scientist / professor level and in each of the key disciplines CC 3.1.2. New joint Swiss TPH/University of Basel Professorship in Medical Anthropology funded and appointed
CC 3.2. Offering a conducive environment for interdisciplinary and transdisciplinary research	CC 3.2.1. Regular exchanges in the form of workshops, seminars or other continuous education events CC 3.2.2. Sustainable funding for key support services in biostatistics and qualitative research CC 3.2.3. Strategy paper on interdisciplinary research
CC 3.3. Acquiring competitive research grants through excellence in disciplinary and interdisciplinary research	CC 3.3.1. Competitively acquired research and service/implementation grants CC 3.3.2. Jointly developed interdisciplinary research proposals
CC 3.4. Informing health interventions, programmes and policies through evidence generated by strong interdisciplinary and transdisciplinary research	CC 3.4.1. Translation of interdisciplinary and transdisciplinary evidence into policy and practice
CC 3.5. Training future generations of researchers and professionals in state-of-the-art disciplinary,	CC 3.5.1. Revision of MSc / PhD teaching curricula to ensure dedicated teaching and increased visibility of

interdisciplinary and transdisciplinary approaches for public health	interdisciplinary and transdisciplinary approaches, including relevant theories CC 3.5.2. Specialised review of both statistics and qualitative methods during submission of research proposals to the research commission (RC) CC 3.5.3. Adequate representation of health social science expertise in PhD committees, where required

Clinical Research and Medical Services

Strategic objective	Expected output
CC 4.1. Conducting high–quality phase I-IV clinical trials and observational studies – as sponsor, sponsor-investigator or service provider – addressing key health challenges primarily in low- and middle-income countries	CC 4.1.1. High-quality phase I-IV clinical trials and observational studies that address primarily key health challenges in low- and middle-income countries, as sponsor, sponsor-investigator or service provider
CC 4.2. Strengthen clinical research capacity and ensuring equitable collaboration with scientists in partner organizations in low- and middle-income countries	CC 4.2.1. Sustainable clinical research network between Swiss TPH and partners mainly in Tanzania, Côte d'Ivoire, DR Congo, Lao PDR and Peru, with equal partnership and solid joint portfolio of clinical research projects and broad training opportunities CC 4.2.2. Equal and fair cooperation of all partners in joint clinical project in terms of design, planning, implementation, funding, analysis and dissemination
CC 4.3. Maintaining, adapting and constantly improving high-quality standards in medical care and diagnostic services at Swiss TPH	CC 4.3.1. Up-to-date medical services with focus on travel-related and tropical infectious diseases. CC 4.3.2. State-of-the-art diagnostic services with focus on parasitic diseases fulfilling existing and in the future required mandatory quality standards, e.g. ISO17025, IvDV (IVDR)
CC 4.4. Providing competent teaching and training using the latest teaching methods in the field of tropical and travel medicine, diagnostics and clinical research and operations forming future experts in tropical medicine, public and global health	CC 4.4.1. Building a community of clinical researchers and future leaders in tropical medicine, public and global health
CC 4.5. Publishing and disseminating medical research findings as a basis for policies and practices improving health outcomes and reducing health inequalities	CC 4.5.1. Contribution to change in policy and medical practice
CC 4.6. Fostering and strengthening synergistic interactions between medical and diagnostic services and supporting clinical research activities	CC 4.6.1. Provision of robust diagnostic endpoints for diagnosis of parasitic infections CC 4.6.2. Participation in clinical expert advice and medical monitoring service provision

Computational and Digital Health Sciences

Strategic objective	Expected output
CC 5.1. Providing a sustainable and ethical environment for developing and maintaining expertise in state-of-the-art computational and digital health methods	CC 5.1.1. Expanded collaboration with scientific computing providers CC 5.1.2. Accessible and expanded Research-IT CC 5.1.3. Expanded network of trusted contractors CC 5.1.4. Improved communication and collaboration between Core IT and Swiss TPH departments CC 5.1.5. Expanded provision of teaching, training and consulting in computational and digital health methods to students and staff
CC 5.2. Applying state-of-the-art computational and digital methods improving health outcomes locally and globally	CC 5.2.1. Continued development and application of mathematical and statistical models of infectious diseases CC 5.2.2. Continued development and application of statistical and mathematical models of non-communicable disease risk and burden

	CC 5.2.3. Expanded scope and expertise in molecular epidemiology using state-of-the-art technologies CC 5.2.4. Expanded appropriate application of machine learning and causal inference techniques
CC 5.3. Leveraging institutional collaborations and partnerships promoting development and implementation of appropriate digital health solutions across geographies	CC 5.3.1. . Increased integration of computational methodologies and digital health tools within external institutional collaborations CC 5.3.2. Increased visibility and recognition of Swiss TPH as a digital health expert
CC 5.4. Fostering seamless integration of laboratory, computational and field methodologies across disciplines	CC 5.4.1. Increased integration of scientific disciplines including laboratory and field sciences using computational methodologies

Capacity Strengthening and Learning

Strategic objective	Expected output
CC 6.1. Training a diverse and inclusive community of Public and Global Health researchers, experts and leaders fostering sustainable change	CC 6.1.1. Created a global community of students who excel as researchers and leaders for sustainable change in public and global health
CC 6.2. Fostering competence and student oriented research– and practice-based learning and teaching of excellent quality	CC 6.2.1. Delivered excellent teaching and training at graduate and post-graduate level for lifelong learning
CC 6.3. Nurturing a diverse and dedicated teaching faculty with expertise in Public and Global Health research and practice	CC 6.3.1. Created a diverse expert teaching faculty with excellent didactical skills
CC 6.4. Innovating and advancing learning methods using digital and other technologies for enabling mutual learning for change	CC 6.1.4. Innovated learning methods and digital and other technologies, and contributed to the transformation of learning
CC 6.5. Serving as a resource and service for making science more accessible, inclusive, equitable and sustainable	CC 6.5.1. Provided resources and services for making science more accessible, inclusive, equitable and sustainable for the benefit of all
CC 6.6. Contributing to the creation of an interconnected, transnational knowledge society moving towards sustainability	CC 6.6.1. Swiss TPH staff, partners and networks engage in lifelong mutual learning for sustainability

Implementation Research and Practice

Strategic objective	Expected output
CC 7.1. Applying rigorous implementation research methods identifying and validating evidence-based practices while addressing the barriers and facilitators to successful implementation of health interventions and programmes	CC 7.1.1. Documented effectiveness and impact of health interventions and implementation strategies, including enablers and hindering factors that inform the development and implementation of a number of effective strategies and policies
CC 7.2. Evaluating the feasibility, effectiveness and impact of health interventions and implementation strategies	CC 7.2.1. Documented analysis, descriptions and impact of how new practices or health interventions have been implemented in specific contexts or settings, providing insights into successful implementation strategies and challenges
CC 7.3. Developing, implementing and disseminating innovative and sustainable approaches to disease control and prevention, and to health care delivery, while leveraging technology and improving healthcare workforce training and development	CC 7.3.1. Concise summaries of the research evidence supporting new practice or health interventions/programs, which can be used to communicate the evidence to practitioners, policymakers and other stakeholders
CC 7.4. Strengthening people-centred healthcare systems ensuring that patients and populations receive timely and appropriate services while emphasizing health equity	CC 7.4.1.Good/high quality reports and assessments summarizing the results of the implementation of people-centred practice or intervention referring to health outcome measures and impact

Expert and Policy Advice

Strategic objective	Expected output
CC 8.1. Conducting high quality evidence synthesis with the focus of Swiss TPH research in collaborations with WHO, United Nations, Cochrane collaborations, expert centres, or similar	CC 8.1.1. Production of systematic reviews and evidence synthesis, which are disseminated with high visibility to the target group and are used in guidelines, norms or policies. CC 8.1.2. Policy advice products are created such as policy briefs, reports, dissemination workshops and alike within Swiss TPH research and service
CC 8.2. Local, regional, national and international health authorities, use evidence produced by Swiss TPH in evidence based new policy, guidelines and regulations.	CC 8.2.1Documented track record of the advisory role of Swiss TPH to local, regional, national and international health authorities CC 8.2.2Swiss TPH is represented in relevant board and expert commissions CC 8.2.3Evidence-based approaches and solutions produced by Swiss TPH have contributed to influence and shape policy
CC 8.3. Swiss TPH is recognized by the public and partners as a source of high quality knowledge production relevant to the policy context and to the needs of vulnerable populations	CC 8.3.1Sustainable knowledge translation plans are implemented in Swiss TPH's projects from the planning/proposal stage CC 8.3.2Communication of policy relevant findings to the public CC 8.3.3Involvement of beneficiaries in the knowledge translation activities

A.2 Partnerships and Networks

Of particular importance for Swiss TPH are the long-term partnerships established over decades at the local, national and international level. These partnerships are reflected in Memoranda of Understanding (MoUs) and other framework agreements. Additionally, Swiss TPH integrates three WHO Collaborating Centres: (i) WHO Collaborating Centre for Epidemiology and Control of Helminth Infections (since 2012); (ii) WHO Collaborating Centre for Modelling, Monitoring and Training for Malaria Control and Elimination (since 2015); and (iii) WHO Collaborating Centre for Verbal Autopsy (since 2022).

At the **local level**, the long-term associations are:

- University of Basel and its priority areas of “Life Science” and “Sustainability and Energy” and the Centre for African Studies
- Botnar Research Centre for Child Health

At the **national level**, the strategic alliances are:

- École polytechnique fédérale de Lausanne (EPFL)
- Swiss Universities (Bern, Geneva, Lausanne, Luzern, Lugano, Neuchâtel and Zurich) that provide the umbrella of the Swiss School of Public Health (SSPH+)
- Federal Office of Public Health, Federal Office of Food Safety and Veterinary Services, Federal Office of Environment and the Swiss Personalised Health Network (SPHN), where we integrate the needs of basic research, clinical medicine, health economics and health systems research. Based on leading role in running SAPALDIA, the only Swiss-wide cohort and biobank for more than 25 years, Swiss TPH coordinates a network of national public health experts that builds a civil reference biobank for promoting excellence in personalised and public health.
- Product development partnerships, such as Medicines for Malaria Venture (MMV), Drugs for Neglected Diseases initiative (DNDi), Foundation for Innovative Niew Diagnostics (FIND)
- Other partnerships and alliances with non-governmental organisations (NGOs) such as Fairmed, SolidarMed, Médecins Sans Frontières (MSF), International Committee of the Red Cross (ICRC), Swiss Red Cross, Medicus Mundi Schweiz

At the **international level**, Swiss TPH is a founding member with senior staff serving on the Board of Governors and/or Board of Trustees of key institutions in different parts of Africa:

- Ifakara Health Institute (IHI) in Bagamoyo, Dar es Salaam and Ifakara, Tanzania
- Centre Suisse de Recherches Scientifiques en Côte d’Ivoire (CSRS) in Abidjan, Côte d’Ivoire
- Centre de Support en Santé Internationale (CSSI) in Chad

Other strategic and global partnerships with long-term collaborationexist between Swiss TPH and two other institutions in Southeast Asia and Latin America:

- Lao Tropical and Public Health Institute (Lao TPHI) in Vientiane, Lao PDR
- Universidad Peruana Cayetano Heredia (UPCH) in Lima, Peru
- Papua New Guinea Institute of Medical Research (PNGIMR) in Goroka, PNG

Additionally, Swiss TPH acts as the Leading House for Africa, as mandated by the State Secretariat for Education, Research and Innovation (SERI). These deeply rooted partnerships, along with networks, public-private and product development partnerships and strategic alliances, on a local, national and international level greatly shaped Swiss TPH over the past 80 years.

Strategic relevance will be given to build up regional hubs. This approach aims at having fewer study sites, but with higher presence of local and expatriate interdisciplinary teams. The aim is to build a platform with long-term regional presence, where expertise can be grouped more effectively to maximise synergies between research projects and clinical trials, optimise cost-

effectiveness, provide training opportunities and contribute to improved impact and sustainability of large projects and programmes. Hence, the advantages of the currently available Swiss TPH networks and partnerships will be maximised for this development, to foster research, education and services in the countries where Swiss TPH is active.