Website address:
https://www.gesundheitsindustrie-bw.de/en/article/news/neglected-tropical-diseases-gisela-schneider-the-burden-of-disease

Expert interview on NTDs – part 2

Neglected tropical diseases - Gisela Schneider: the burden of disease

"Leaving no one behind". The motto of the 2030 Agenda with its 17 Sustainable Development Goals (SDGs) which was signed by the United Nations (UN) in 2015 makes clear that combatting poverty and its consequences is an essential part of sustainable development. The fight against neglected tropical diseases (NTDs) is defined as a major aim of the Agenda's sustainable development goals. The World Health Organisation (WHO) regards twenty poverty-related infectious diseases as NTDs. Dr. Gisela Schneider, Director of the German Institute for Medical Mission e. V. (Difäm), was interviewed by Sarah Triller from BIOPRO and explained why NTDs affect mainly the poorest people in the world, and the burden of diseases these people suffer from.

Why are poor people in particular affected by NTDs?

Dr. Gisela Schneider, Director of the German Institute for Medical Mission e. V. (Difäm), was interviewed by Sarah Triller from BIOPRO.
© Hermann Bredehorst

Many NTDs are classified as classical tropical diseases, which implies that they are caused by pathogens that thrive well in warm, humid climates. In addition, many people in these regions are poor and often can't afford an adequate supply of healthy food nor have they access to clean water or safe sanitation. People who live in poverty and are malnourished have a weaker immune system compared to well-nourished people and are more vulnerable to infectious diseases. They are exposed to a broad range of infectious pathogens, but have few opportunities to ward off or prevent disease.

In many low-income countries, the governments care little about these neglected regions. This intensifies the cycle of poverty and disease. The people in these areas have no access to education and thus cannot participate in the development of society.

NTDs result from a variety of different factors. And it is for this reason that NTDs have to be fought on many levels. In addition to all medical and technical interventions, the fight against NTDs is always a fight against poverty and for more justice.

The World Health Organisation lists a diverse group of twenty poverty-related diseases as NTDs, the research and control of which does not receive the attention required despite their prevalence in the regions where they occur: Buruli ulcer, American trypanosomiasis (Chagas disease), dengue and chikungunya fever, dracunculosis (Guinea worm disease), echinococcosis (caused by canine and fox tapeworms), trematode infections, African trypanosomiasis (sleeping disease), leishmaniasis, leprosy, lymphatic filariasis (elephantiasis), mycelium/chromoblastomycosis and other soft tissue mycoses, onchocerciasis (river blindness), rabies, scabies and other diseases caused by ectoparasites, schistosomiasis (bilharzia), soil-transmitted helminth diseases, snakebite poisoning, cysticercosis/taeniasis (pork tapeworm infection of the intestine and central nervous system), trachoma (Egyptian grain disease), yaws.

These parasitic, bacterial and viral diseases occur mainly in tropical and subtropical countries and affect the poorest sections of the population in particular. Worldwide, more than a billion people in more than 100 countries suffer from one or more NTDs. The consequences range from permanent disabilities, exclusion and stigmatisation to death.

People who suffer from NTDs usually suffer from more than one simultaneously. Why does multimorbidity occur so often?

This is because poverty is multidimensional. Poor people often experience a variety of deprivations in their daily lives. For example, people who have a weakened immune system, usually as a result of the poor quality and quantity of the food they eat, are unable to fight diseases caused by the pathogens to which they are exposed day in and out: worms that are ingested

with the food people eat, pathogens that are transmitted via insect stings or by walking around without shoes. It is quite common for people to suffer from multiple diseases simultaneously, and diseases that have become chronic. The diseases are often diagnosed at a very late stage, i.e. when complications of the disease are experienced. These include growth disorders in children, which can be caused by chronic worm infestations, people with elephantiasis who become excluded from society, or the consequences of nerve cell destruction in leprosy, which can lead to disfigurement, to name but a few examples.

What role do comorbidities play in the effort to combat NTDs?

With preventive measures through appropriate footwear, Difäm fights against the penetration of silicates into the skin and thus against the development of podoconiosis.
© Christel Ahrens

People who suffer from multiple NTDs are often very weak, and recovery and treatment can take a long time. Some of the NTDs are difficult to diagnose; sometimes only one or two diseases can be diagnosed and those that escape diagnosis are left untreated. People who suffer from NTDs often take drugs against several diseases. As a result, interactions between the different drugs can occur.

It is therefore extremely important that NTDs are treated systematically and that NTD treatment is integrated into the local healthcare system, for example into the guidelines for the preventive screening of children or pregnant women. It is also important to involve the general population in the fight against NTDs.

However, the most important aspect in the fight against NTDs is the ability to recognise and do something against the determinants of disease. For example, good footwear is needed where podoconiosis is common. Podoconiosis is a disease of the lymphatic vessels of the lower extremities caused by the entry of silicates through the intact skin, which might lead to elephantiasis. It is equally important to improve people's diets so that children grow up healthy. It is about improving food quantity ("eat enough"), but above all about improving food quality ("healthy food"). Education needs to be improved, in particularly that of women and girls. They need to know about the potential dangers of infections and appropriate preventive measures. In addition, they need to have access to all that is necessary, including money, so that preventive measures can be taken.

What goals does Difäm have with regard to fighting NTDs, and how can these be achieved?

The fight against NTDs is part of all our health programmes. We are working with our local partners to provide access to comprehensive healthcare, especially for the poor, in a way that not only provides them with medicines, but also with the information they need to prevent and successfully treat diseases. Strengthening adequate nutrition and access to water, sanitation & hygiene (WASH) plays a key role in our projects, as does health education.

It is important to identify the NTDs that are common in certain countries or environments, for example, worm diseases such as trachoma, which is a chronic infection of the eyelids or filaria. Health personnel must be trained well in order to be able to recognise and treat NTDs. NTD-affected countries usually have guidelines in place to provide appropriate treatment. Appropriate drugs and diagnostic agents must be available. It is a very complex process to treat NTDs in the areas where they occur and prevent new infections from occurring.

Difäm is keen to involve the local communities in improving health and identifying the causes of their poverty. We are, for example, running a basic health programme in Malawi with the goal of providing every family with access to a toilet in order to contribute to solving hygiene and sanitation problems. The toilets, which are being built by the villagers according to specific instructions and guidelines, help reduce the risk of infections. In Ethiopia, we worked together with local partners to train volunteers who can then help people with podoconiosis. The aim was to give the people appropriate footwear that would prevent the entry of silicates into the skin and teach them foot hygiene in order to protect them against infections.

Many people who suffer from NTDs often suffer from a stigma because they are often disfigured and have to live with disabilities. The goal is therefore also to combat stigma and restore the dignity of these people. Appropriate education that helps prevent people from being discriminated against needs to be provided.

The fight against NTDs requires a holistic approach, a lot of patience and the participation of all concerned. Only then can the fight against NTDs really be won.

This interview with Dr. Gisela Schneider is the second of a series of four. The interviews were conducted with experts from the fields of health, science and economy who participated in the "Neglected tropical diseases – impulses from Baden-Württemberg" conference held in Stuttgart on 7 February 2019. More interviews to follow.

Article

29-May-2019
Sarah Triller
© BIOPRO Baden-Württemberg GmbH

Further information

Dr. Gisela Schneider
Deutsches Institut für Ärztliche Mission e. V. (Difäm)
Phone: +49 (0)7071 7049017
E-mail: schneider(at)difaem.de

- German Institute for Medical Mission

The article is part of the following dossiers



Human infectious diseases: new threats

Expert interview on NTDs – part 1

Neglected tropical diseases – Carsten Köhler: impulses from Baden-Württemberg

More than one billion people worldwide suffer from neglected tropical diseases (NTDs). NTDs are mostly poverty-related infectious diseases that prevail in tropical countries due to lack of research and measures to detect, prevent and control them. Dr. Dr. Carsten Köhler reports on the political, economic and scientific contributions Germany and Baden-Württemberg can make to successfully change this situation.

Expert interview on NTDs – part 3

Neglected tropical diseases – Franz-Werner Haas: the role of technology and pharmaceutical companies

Neglected tropical diseases (NTDs) are poverty-related infectious diseases that suffer from scant attention in terms of research or control. NTDs exist in the shadow of the "big three": malaria, tuberculosis and HIV/AIDS. They affect many people living in poverty in the emerging and developing countries of the tropics and subtropics. Active control can only be achieved when people with NTDs are treated effectively and given information on what to do to reduce the risk of reinfection.

infectious diseases | prevention | rare diseases | basic research