

## Editorial (English version)

## Evolutionary trend of the significant decrease in histopathological conditions associated with neglected tropical diseases at the Kinshasa University Hospital in 51 years: fake or reality?

Neglected tropical diseases (NTDs) are a group of preventable and curable diseases that affect approximately 1.65 billion people worldwide, 40 % of whom live in Africa (1). They affect the poorest people living in sub-Saharan Africa (SSA) and together produce a disease burden that is up to half that of malaria in SSA and more than double that of tuberculosis (2). These are communicable diseases that occur in poor countries and affect exclusively poor populations in rural areas and poor urban neighborhoods in low-income countries (3). The most affected populations often live in tropical and subtropical areas of the world. According to the World Health Organization (WHO), NTDs "blight" the lives of more than one billion people worldwide and jeopardize the health of many millions more (1). One billion people (one in 6 or 7 of the world's population) suffer from one or more NTDs at the same time: more than 70 % of countries are affected by two or more of these diseases, while 28 countries are afflicted simultaneously by more than six of them (4). However, while the big three diseases of HIV/AIDS, tuberculosis, and malaria have attracted worldwide attention, these other disabling and sometimes fatal infectious diseases that affect poor populations have received relatively little attention from donors, policymakers, and public health officials. With a few exceptions (leprosy, human African trypanosomiasis, and onchocerciasis), NTDs have received low priority on the agendas of development institutions and funds (3). There are 2.7 billion people in the world living on less than 2 US dollars (\$US) per day, of whom more than 1 billion suffer from one or more NTDs (3).

Most of these diseases have gradually disappeared from many parts of the world as living conditions and hygiene, especially access to safe drinking water, have improved (3).

After the second meeting in Berlin in 2005, WHO proposed to replace the vague term "other communicable diseases" with the more precise term "neglected tropical diseases" (5). Unprecedented progress has been made in recent years against NTDs, a group of about 20 poverty-related diseases that weaken, disfigure, and can kill (6-7).

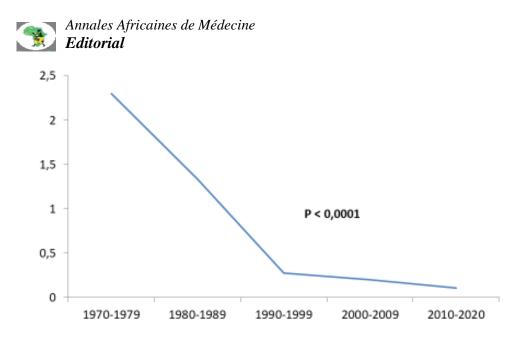
The London Declaration on NTDs was signed on January 30, 2012. In May 2021, the 74th WHO World Health Assembly officially endorsed the recognition of January 30 as World Neglected Tropical Disease Day ("World NTD Day"), commemorating the simultaneous launch of the first roadmap and the London Declaration on NTDs on which one of the world's largest public-private partnerships was founded to end it (8).

Now universally and officially recognized, World AIDS Day on January 30, 2022 will also mark the 10th anniversary of the London Declaration. The Kigali Declaration, sponsored by the Government of Rwanda, will succeed the groundbreaking London Declaration on NTDs, which galvanized a wide range of NTD stakeholders, endemic countries and donors, philanthropists, private sector companies, nongovernmental organizations, universities, and research organizations to come together to commit to prioritizing NTDs.

In this new climate, there is a need to elevate NTDs and highlight positive, ambitious, and winnable control targets to keep the international community 100% committed, so "100% committed" will be the name of the global campaign to get commitments behind the Kigali Declaration, now is the time for leaders to realize this and act (9).

Unfortunately, this is far from being achieved in most of SSA, including the Democratic Republic of Congo (DRC), which is the motivation for the present editorial.

In this regard, we have collated the biopsies listed in the archives of the Department of Pathology at the Kinshasa University Hospital between 1970 and 2020. Of the 74,799 histopathological analyses performed during the above-mentioned study period, 850 were diagnostic of NTDs, i.e. a hospital frequency of 1.13%. When the evolutionary trend of this incidence of NTDs is analyzed by decade (Figure 1), a significant decrease in NTD cases over time can be observed, more marked towards the years 1990-1999 (p < 0.0001).



## Figure 1. Evolutionary trend in the incidence of NTDs per decade at the Kinshasa University Hospital

All provinces of the DRC are concerned by at least one NTD, including some African countries, namely Angola, Rwanda, Burundi, Congo-Brazza, Mali and Chad, and an isolated case in a Belgian subject. A male preponderance was observed in the different types of NTDs.

The causes of this significant decrease in NCD cases in this tertiary institution are not well understood. They would be multifactorial, the multiplicity of pathological anatomy laboratories throughout the country, the inertia of practitioners who no longer perform biopsies and the poverty of patients who no longer have access to health care in the absence of any form of social security (insurance, mutual health insurance), all pathologies with a clear clinical diagnosis not having benefited from a biopsy sample for histopathological confirmation. Another explanation would be the looting unleashed in Kinshasa in September 1991 by the military and the population, disgruntled by the lack of salary increases and the postponement of the national conference, which resulted in the destruction of several properties, both private and public, including some health centers. Another very unlikely hypothesis would be the improvement of the population's living conditions. This is not yet the case in the DRC.

The skin and upper limbs were the most common anatomical sites found.

Leprosy accounted for almost half of the NTD cases. The clinic was dominated by mucocutaneous diseases and the histopathology by simple chronic inflammation.

In conclusion, it is likely that NTDs are under-diagnosed in the DRC on the histopathological level. Hence the need to extend data collection in the different public and private pathology laboratories throughout the country. It is also necessary to consider an awareness campaign for clinicians in order to send all surgical excisions, even when the clinic seems obvious, to the Pathological Anatomy laboratory for confirmation diagnosis.

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