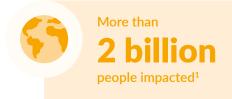
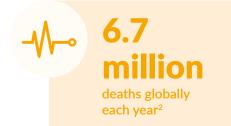
# POVERTY-RELATED AND NEGLECTED DISEASES: WHAT ROLE FOR EU RESEARCH AND INNOVATION?









### WHAT ARE PRNDs?

Poverty-related and neglected diseases (PRNDs) impose a morally unacceptable health and socioeconomic burden on individuals and societies. They comprise major diseases such as **HIV & AIDS**, **tuberculosis (TB)**, **and malaria**, as well as a range of neglected tropical diseases (NTDs), which include:



Parasitic diseases such as hookworm or Chagas disease



Viruses like Dengue and Chikungunya



Bacterial infections such as leprosy



Diseases caused by toxins, such as snakebite envenoming



Fungal infections such as chromoblastomycosis

### **DISPROPORTIONATE IMPACT**

PRNDs mainly affect populations in low- and middle-income countries in marginalised or vulnerable situations, exacting a particularly heavy toll across many African countries. They are often chronic and can result in **lifelong disabilities and deformities**, causing stigmatisation and social exclusion. PRNDs **trap children and young people in a vicious circle of poverty**, interfering with child growth and cognitive development, preventing them from going to school and from reaching their potential.



Africa accounts for nearly 40% of the billion people affected by NTDs.<sup>5</sup>



In 2020, the WHO Africa region was home to 95% of malaria cases and 96% of malaria deaths.<sup>6</sup>



In 2019, 222 million people needed, but did not receive treatment for NTDs in sub-Saharan Africa.<sup>7</sup>

<sup>1</sup> Estimation based on the WHO's figure of more than 1.7 billion people impacted by NTDs, available at:

https://www.who.int/health-topics/neglected-tropical-diseases#tab=tab\_1

Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease Study 2017 [Internet].
Results by Location and Cause, 2017 [Cited 2022 Jan 10]. Available from: <a href="https://gbd2017.healthdata.org/">https://gbd2017.healthdata.org/</a>

<sup>3 \*</sup>in low- and middle-income countries

<sup>4</sup> Ibi

<sup>5</sup> WHO Africa website Promising progress on neglected tropical diseases in Africa

WHO website Malari

<sup>7</sup> Uniting to Combat NTDs website Africa and neglected tropical diseases – profile

### PRNDs IN EUROPE

Deepening global interconnectedness, persistent poverty and inequality, growing antimicrobial resistance, and the impact of a changing climate on disease vectors are just some of the factors that have driven reemergence, and in some cases emergence of PRNDs in Europe.



# Over 16,000

deaths in the EU from PRNDs in 2017.8



14,971

new HIV diagnoses in the EU in 2020.9



## The mosquito

transmitting dengue and chikungunya has been reported in many parts of Europe. 10



## One in five

new TB cases in the WHO Europe region is multidrug-resistant TB (MDR-TB).<sup>11</sup>

### PRNDs AND COVID-19

COVID-19 has had a massive impact on the fight against PRNDs. Testing and access to treatments have been disrupted due to overwhelmed public health systems; research and innovation (R&I) efforts shifted to COVID-19; and the pandemic has exacerbated poverty and inequalities.



HIV testing dropped by 22% between 2019-2020, with an estimated 37 million tests not taken<sup>12</sup> – holding back treatment initiation, putting people's health at risk, and contributing to ongoing transmission.



The number of people enrolled in treatment for multidrug- and rifampicin-resistant tuberculosis (MDR/RR-TB) fell by 15% between 2019-2020.13



2/3rds of the additional 69,000 deaths from malaria in 2020 compared to 2019 were linked to disruptions in the provision of malaria prevention, diagnosis, and treatment during the pandemic.<sup>14</sup>

### **UNEQUAL BURDEN FOR WOMEN IN AFRICA**

Gender inequalities compound the impact of PRNDs on women and girls, with both biological susceptibility and broader social, economic and cultural dimensions causing women and girls to suffer disproportionately.



Young women and girls account for six out of seven HIV infections among adolescents in sub-Saharan Africa.<sup>15</sup>



Around 56 million women in sub-Saharan Africa suffer from Female Genital Schistosomiasis, with 18 to 29 year olds most affected.<sup>16</sup>



In east Africa, the female prevalence of trachoma is 67%, compared to 33% in males.<sup>17</sup>

- 8 Ibid
- 9 Data for EU and three EEA countries Iceland, Lichtenstein and Norway, cf.: WHO/ ECDC HIW/AIDS surveillance in Europe 2020, 2021, available at: <a href="https://www.ecdc.europa.eu/sites/default/files/documents/2021-Annual HIV Report O.odf">https://www.ecdc.europa.eu/sites/default/files/documents/2021-Annual HIV Report O.odf</a>
- 10 Cf., European Centre for Disease Prevention and Control, Aedes Albopictus Factsheet for experts, available at: https://www.ecdc.europa.eu/en/disease-vectors/facts/mosquito-factsheets/aedes-albopictus
- 11 Cf., WHO Regional Office for Europe, Tuberculosis in the WHO European Region Factsheet, 2021, available at: https://apps.who.int/iris/bitstream/handle/10665/340277/WHO-EURO-2021-1980-41731-57122-eng.pdf
- https://apps.who.int/iris/bitstream/handle/10665/340277/WHO-EURO-2021-1980-41731-57122-eng.pdf

  Cf., The Global Fund, Results Report, 2021, available atd <a href="https://www.theglobalfund.org/media/11304/corporate\_2021resultsreport\_en.pdf">https://www.theglobalfund.org/media/11304/corporate\_2021resultsreport\_en.pdf</a>
- 13 Cf., WHO Global Tuberculosis Report, 2021, available at: <a href="https://www.who.int/publications/digital/global-tuberculosis-report-2021/covid-19">https://www.who.int/publications/digital/global-tuberculosis-report-2021/covid-19</a>
- 14 Cf., WHO, World Malaria Report, 2021, available at: <a href="https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2021">https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2021</a>
- 5 UNAIDS website Global HIV & AIDS statistics Fact sheet
- 16 McDonald, M.C., Neglected Tropical and Zoonotic Diseases and Their Impact on Women's and Children's Health, in The Causes and Impacts of Neglected Tropical and Zoonotic Diseases: Opportunities and Integrated Intervention Strategies, Institute of Medicine (US) Forum on Microbial Threats, Editor. 2011, National Academies Press: Washington (DC).
- 17 DSW, PRNDs through a Gender Lens, 2021, available at: <a href="https://www.dsw.org/en/wp-content/uploads/2021/05/PRNDs\_Gender\_Study.pdf">https://www.dsw.org/en/wp-content/uploads/2021/05/PRNDs\_Gender\_Study.pdf</a>

### THE RESULT OF NEGLECT

Important research gaps persist, and tools to prevent, diagnose or treat PRNDs are often unavailable. With today's tools, we will not reach the 2030 Sustainable Development Goals.



# Effective HIV & AIDS and TB vaccines

remain years away.



### A reliable diagnostic

that predicts the occurrence of TB disease is missing.



# Resistance risks reducing the effectiveness

of vector control interventions for malaria.<sup>18</sup>



### Only 2 out of more than 20

NTDs have adequate and accessible diagnostics. 19

### RESEARCH FUNDING FOR PRNDs IS STAGNANT

With limited market incentives for the private sector, public funding for PRND R&I is crucial.



2010 - 3.4 billion USD 2020 - 3.9 billion USD<sup>20</sup>

Funding for PRND research is stagnant.



67% public
21% philanthropic
21% private sector
- share of PRND R&I funding.<sup>21</sup>



An annual funding gap of at least \$1.5-2.8 billion

for new health technologies.<sup>22,23</sup>

### PRND R&I - AN OPPORTUNITY FOR THE EU

The EU is the third largest public funder of PRND R&I worldwide and provided around 100 million EUR funding annually to PRND R&I between 2010 and 2020. PRND research is a smart investment:



EU member states are home to some of the most renowned research organisations in the area of global health, which are involved with many candidates in the neglected disease R&I pipeline.<sup>24</sup>



When the EU invests in European SMEs to undertake PRND R&I, this leverages co-investments from these SMEs, international organisations, and EU governments.<sup>25</sup>



The EU's investment in PRND R&I creates high quality European jobs.<sup>26</sup>

<sup>18</sup> WHO. Global report on insecticide resistance in malaria vectors 2010-2016, (2018) available at: https://apps.

<sup>19</sup> Cf., WHO, Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical

<sup>20</sup> Cf., Policy Cures Research, G-Finder, Neglected Disease Research and Development, 2021, available at: <a href="https://policy-cures-website-assets.s3.ap-southeast-2.amazonaws.com/wp-content.">https://policy-cures-website-assets.s3.ap-southeast-2.amazonaws.com/wp-content.</a>

uploads/2022/01/27173842/2021-G-FINDER-Neglected-Disease.pdf

<sup>22 \*</sup>For neglected diseases

<sup>23</sup> Young et al., 2018, Developing new health technologies for neglected diseases: a pipeline portfolio review and cost model, available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6139384/

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24 Cf., Policy Cures Research R&D pipeline tracker. Available at: <a href="https://www.pipeline.policycuresresearch.org/">https://www.pipeline.policycuresresearch.org/</a>
25 Cf., Policy Cures Research, 2016, Saving Lives. Available at: <a href="https://www.dsw.org/en/wp-content/uploads/2016/11/">https://www.dsw.org/en/wp-content/uploads/2016/11/</a>
DSW SavingLives, making-the-case-for-EUinvestment-in-GH-RD.pdf

<sup>26</sup> 

# **SPEAK UP!**

### WHAT CAN THE EU AND DECISION MAKERS DO TO TACKLE PRNDs?



### **PRIORITISE PRNDs**

Enhance support for PRNDs in EU policies; ask questions and scrutinise policies, and hold the EU accountable for its international commitments to tackling PRNDs.



### **INVEST IN PRNDs**

Ensure that EU policies and commitments to PRNDs receive adequate funding, in particular through ensuring support for PRND R&I within Horizon Europe.



#### SPEAK UP FOR PRNDs

Give voice to PRNDs in your day-to-day work within EU institutions; raise awareness of their impact, and guarantee a focus on PRNDs in the EU's evolving R&I landscape.



### **HIGHLIGHT PRNDs**

Tackle the unequal burden of PRNDs on women and girls through promoting the importance of gender-sensitive R&I; scrutinising the implementation of Gender Equality Plans under Horizon Europe.



Deutsche Stiftung Weltbevölkerung (DSW) is a global development organisation that focuses on the needs and potential of the largest youth generation in history.

### **GET IN TOUCH**



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