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Literature Review



## FACTOR MORBIDITY OF NEGLECTED TROPICAL DISEASES

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### INFORMASI ARTIKEL

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### KORESPONDENSI

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### A B S T R A K

*Neglected Tropical Diseases* (NTDs) causes a decrease in patient activity and productivity and has an impact on the family and surrounding community. In the last few decades, *NTDs* have begun to receive attention from various countries because even though the fatality number is weak, the morbidity rate is very high. The aim of this research was to establish a literature review on Neglected Tropical Disease. The method used is literature review; uses the Pub med database as the basis for post search, the use of reviewed articles is journals or articles published in the last 10 years with a total of 30 articles. Partnerships linking key donor agencies, charities, NGOs, regulatory authorities, the pharmaceutical industry, and other essential needs managers are vital in fighting NTDs and it is possible to access the healing process for everyone in the world. The potential impacts are universal drawbacks published with the decadent changes in the air, namely in part: dispensation, most notably on vector-borne diseases. The results of data extraction it can be concluded that NTDs is a neglected disease even though this disease can last a long time and interfere with personal, family and community activities and productivity.

### INTRODUCTION

In the last few decades, neglected tropical diseases have begun to receive attention from various countries because even though the fatality number is weak, the morbidity rate is very high. The impact of the disease is not only direct both on individuals and communities, but also indirectly on the scale of the country's economy which is very detrimental. Microbiological approach is needed to support diagnosis and accuracy of treatment to suppress the consequences of the disease.[1]

NTD is said to be a neglected disease because patients who suffer from this disease will experience this disease for a long time even during their lives so that it can cause various problems. Complex problems are not only for the patient himself but also for his family and the surrounding community. NTD causes a decrease in patient activity and productivity and has an impact on the family and surrounding community. NTD is an infectious disease caused by Protozoa, Bacteria, Viruses, Helminths. In 2012 there were five

NTDs in Indonesia, namely leprosy, filariasis, schistosomiasis, yaws and worms.[2] The aim of this research is to carry out a literature review on Neglected Tropical Disease.

### METHODS

The author uses the literature review method, an abstract method derived from synthetic observations that are related to real or not real objectively generated file points, including the current place of activity in the information provided.[3] The literature of the author is the use of the Pubmed database (<https://pubmed.ncbi.nlm.nih.gov/>) as the base for searching posts. The use of reviewed articles is journals or articles published in the last 10 years with a total of 30 articles. The author uses three main words, namely forgotten, tropical, and disease. The illustration below is the author's procedure for searching for literature:

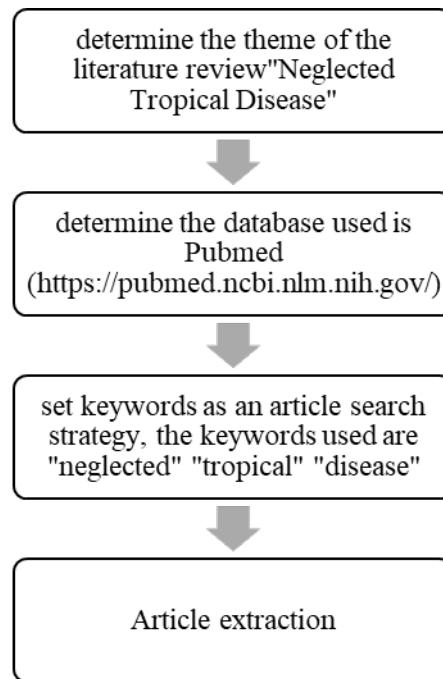


Figure 1: Literature Review Work Procedure

## RESULT AND DISCUSSION

After getting 30 posts, then trying to extract the posts, the results of the extraction from that post are as follows:

No	Title/Years	Language	Objective of Research	Type of Research	Method of Collecting Data	Population and sample	Result
1	Diseases that affect the heart are diseases that are often considered trivial and can be contagious. NET-Heart blueprints: Concept Ideas and Designs Clara Saldarriaga, Juan Farina, Lucrecia M. Burgos, Macarena Cousirat Liendro,	English	To illustrate the alibi and estimate the concept of the NET-Heart blueprint	IASC EL acara event collaboration activities	Analytical studies, Workshop ideas, results and analysis, preparation of documents and suggestions and assessment of clinical relevance.	-	The NET-Heart Blueprint was created to assess the effects and impacts of diseases, especially other infectious diseases. This is a collaborative innovation that should be the focus and cannot be ignored from the world of health or experimentation. Blueprints have the benefit of looking for evidence and reviewing urgent situations with the aim of solving problems to the efficient diagnosis and treatment of cardiovascular complications.[4]
2	Assessing the position of disinfection surgery in the canine rabies setting: An analytical review and outcomes or Malcolm Bennett1, Jenny Stavisky, Marnie L. Brennan1, Abi Collinson Rachel S. Dean2 /2020	English	A systematic review was conducted to compare the outcomes and impacts of vaccination and sterilization programs with vaccination programs alone	A systematic review	The process of searching 3 electronic databases (CAB Abstracts, Medline and Outline Health) and gray literature was attempted.	-	Promising research comparing the results and effects of the two interventions will be needed to determine the participation of additional sterilization, and the underlying methods that warrant any change. In the absence of this fact, the priority goal of rabies regulation. implementation of the recommendations of the world health organization for mass vaccination [5]

3	Monoclonal antibody innovation that acts as a specific serotype against DENV-4 or dengue virus 4, Elizabeth Hunsperger 2018	English	This study demonstrates the importance of developing the latest NS1 Ag discovery assay with increased sensitivity to DENV -4.	SUMO* functions as a cloning vector to a small form, while UMO*-DENV-4 rNS functions as a monoclonal development of certain antibodies	This recently developed MAb was subsequently maximized for use in the DENV-4 anti-NS1 containment ELISA.	-	From the recent published MAb assessment research, we identify 3 anti-NS1 MABs specifically DENV-4: 6D4B10, 3H7A9, and 8A6F2. Two of these MAb are maximum for use in DENV-4 serotype-specific NS1 capture ELISA : 6D4B10 as detection antibody and MAb 8A6F2 as capture antibody.[6]
4	The forgotten origins of action of tropical diseases /David H. Molyneux, AnarfiAsamoah-Bahb, Alan Fenwick, Lorenzo Savioli, and Peter Hoteze/2021	English	Highlight major participants from the The late Kenneth Warrens Rockefeller Foundation supports the Great Neglected Diseases of Mankind, which coined the term "neglected," through more contemporary developments following the London Declaration of 2012.	-	Kenneth Warren in his Rockefeller Foundation–supported Great Neglected Diseases	Western platform for clinical positions in endemic countries and in significant policy positions at the World Health Organization	This means that the defense is focused on generating momentum to decide on a publicly recognized brand of citizens' health as a target in the United Nations' Sustainable Development aims.[7]
5	The universal and epidemiological burden of tropical disease is underestimated, Anthony R. Mawson 2017	English	Identify important NTD risk factors, and describe the weight of the disease outline in terms of years of life matched by severity (DALYs)	-	-	-	As the general war against NTDs continues, more up-to-date public health policies and research are needed to develop effective drugs and vaccines. Partnerships linking key donor agencies, charities, NGOs, regulatory authorities, the pharmaceutical industry, and other essential needs managers are vital in fighting NTDs and enabling access to healing for millions of people around the world. Several colleagues have published recent funding to mix efforts to prevent and create new treatments for NTDs. Although further progress is being made against NTD, the lasting success is related to the area of policy, considerable political support, and the cooperation of all participants

							When the ordinary war against NTDs continues, citizens need new vaccines that are effective and efficient in drug development for health policy. Partnerships linking important donor agencies, charity bodies, NGOs, regulatory authorities, pharmaceutical manufacturers, and other meaningful service administrators are vital in fighting NTDs and enabling access to treatment for millions of people around the world. Some friends have published recent budgets to combine efforts to avoid and produce new maintenance for NTDs. Although further developments were made to NTD, its lasting success is linked to the aspects of wisdom, supportive political participation, and similar activities of all members. [8]
6	Underrated tropical diseases and climate change	English	An introduction to terms and methods used in modeling air changes and a description of the state of the art in research on how air changes may affect future NTD transmission is related to experimentation, namely the way air changes and affects NTD transmission	A systematic Literature review	The 34 inflammations listed in this paragraph are obtained from the NTD World Health Organization records as well as the World Health Organization priority disease blue stamp records	-	For most inflammations, some facts exist regarding areas of the area that contribute to the survival of populations of zoonotic hosts, vectors and parasites. published research is lacking regarding the potential effects of air changes, namely dispensation, most notably on vector-borne diseases.[9]
7	Mental Health and tropical illness that is taken for granted: Forward and integration Partners, Freddie Bailey, Julian Eaton, David H. Molyneux 2019	English	Pay attention to pevelopments in mastering the whole of the psychological health consequences of NTD and the innovative applications that arise in this aspect	-	-	-	A person's mental and physical health will be checked and have the opportunity to integrate with NTD.[10]
8	About the advanced handling of a severe and widespread pandemic is a tropical disease that is taken for granted	English	-	Review	-	-	The fact from the WHO states that the benefits of chemotherapy have been felt by more than one billion people in all countries in 2014. The research conducted by the author shows that affordable products are very much in demand. however, this condition remains weak in underdeveloped or developing countries which puts a limit on

							achieving the Roadmap. [11]
9	Reduction and eradication: tropical diseases taken for granted, David Mabey 2019	English	-	Review	-	-	The elimination and eradication of NTDs that have occurred recently is a significant progress, achieving these goals and objectives has been criticized as an unexpected challenge. [12]
10	The global community responds effectively to diseases that occur in poor countries: tropical diseases that are taken for granted, Xiao-Nong Zhou 2020	English	-	Scoping Review	-	-	The year 2020 will be very meaningful for the future of the general answer to NTD. Progress towards the 2020 track plan goals will be assessed, a new 2021–3030 NTD track plan will be released, and London Information commitments will need to be updated. It is hoped that over the next decade, outline answers will be able to build on today's successes, in line with the current framework of health and development activities, but also continue to focus attention on NTDs and mobilize sufficient sources of energy to view the business in a more light-hearted way. Efficient until 2030.[13]
11	Role of oral rabies vaccines in the elimination of dog-mediated human rabies deaths/2020	English	-	-	-	-	ORV of dogs is one of the most underutilized methods in the battle against rabies. ORV is a critical instrument in the global elimination of dog-mediated human rabies mortality, and particular recommended efforts should be followed quickly to promote safe and cost-effective adoption of ORV. [12]
12	Incidence and Mortality from a Neglected Tropical Disease (Rabies) in 28 African Countries/ 2020	English	The objective of this study was to present the incidence and mortality rates from rabies in 28 African countries from 2005 to 2018	-	Second-ary data were obtained from the World Organization for Animal Health Database.	-	In the time period (2005—2018), the greatest combined rabies incidence and fatality was 1601 in 2006, while the lowest was 157 in 2005. Only five countries (Angola, Central African Republic, Kenya, Mozambique, and Senegal) accounted for 65 percent of rabies cases and deaths. Notably, the numbers on incidence and mortality were

							exactly the same. [13]
13	Challenges of rabies serology: Defining context of interpretation./2021	English	-	-	-	-	The high fatality rate of rabies, the virus's unusual pathogenesis, which allows for vaccination both before and after exposure to effectively protect, and laboratory testing capabilities all have an impact on the interpretation of rabies serology. The cut-off level chosen for a laboratory is determined by the laboratory method, the objective of testing, and the sample under research.[14]
14	Function of host protein stau1 in rabies virus replication/2021	English	-	-	-	-	This study reveals that the host protein STAU1 was recruited to the NBs in RABV-infected cells and may play a role in host antagonism against rabies virus proliferation.[15]
15	Rabies epidemiology, prevention and control in nigerian: Scoping progress towards elimination/2021	English	-	scoping review	-	-	Studies conducted in areas distant from rabies diagnostic facilities accounted for more human rabies cases and fewer dog rabies cases. [16]
16	Public health implication towards rabies elimination in Sri Lanka: A systematic review/2021	English	conducted a systematic review of scientific literatures and data to assess current human and animal rabies control and prevention strategies in Sri Lanka.	Systematic review	-	-	Despite the nationwide standard of dog to human ratio of 1:8, there are huge disparities or unknown of dog ecology in regions. Awareness raising including has been enhancing for both general public and school children. Surveillance system is poorly operated so that simultaneous data analysis for decision-making is impractical [17]
17	Limited brain metabolism changes differentiate between the progression and clearance of rabies virus/ 2014	English	-	-	-	-	We believe that the increase in corticosterone is part of RABV's attempt to prevent the development of immunological responses that would otherwise impede its spread. In support of this idea, we show that in the absence of vaccination administration, pharmaceutical intervention to suppress corticosterone

							production greatly reduces RABV pathogenicity. [18]
18	Underrated Tropical Diseases: an analytical survey design, and Peter J. Diggle 2020	English	-	-	The benefits of correlation in model-based prevalence can result in survey and design analysis	-	This activity framework can be used to develop a predictive probability plan that can inform policy holders within the country about the the possibility of having met their elimination goal, and in the bonus illustration collection must invest. We assessed our methodology using research into the problem of lymphatic filariasis in Ghana, demonstrating that the geostatistical approach exceeds the currently used approach to determine the exclusion status of the assessment section.[21]
19	Can Neglected Tropical Diseases Compromise Human Wellbeing in Sex-, Age-, and Trait-Specific Ways?/David C. Geary/2016	English	-	-	Review	-	Inclusion of this type of action in neglected tropical disease research has the ability to provide a more colorful description of how these diseases compromise people's safety and can provide useful tools for exploring the efficacy of related treatments.[22]
20	Ebola and Marburg Hemorrhagic Fevers: Neglected Tropical Diseases?/Adam MacNeil, Pierre E. Rollin Viral/2012	English	Discuss aspects of EHF and MHF disease, in comparison to the "classic" NTDs,	-	-	-	Those most at risk to MPAs and MPAs are rural central Africans, many of whom are among the lowest-paid. Outbreaks of EHF and MHF are usually linked to limited public health surveillance and inadequate medical countermeasures, both of which are partly due to poor conditions. Effective ways to avoid and manage EHF and MHF are well understood. While challenging, attempts to mix the management of this disease with other NTDs, through methods such as structured surveillance and health system improvements, will provide the combined benefits to populations in rural central Africa. While several candidate vaccines and antiviral treatments for EBOV and MARV are currently under development, traditional public health surveillance and outbreaks.[23]

21	Relation of people with disabilities to tropical diseases that are underestimated Philip Downs 2019	English	-	-	Review	-	There is an opportunity and a desire to scale up, incorporate and fund in an inclusive, health system-centred NTD program. The realization of the Sustainable Development Goals, the Outreach of Public Health, and the regulation and elimination of NTDs all depend on ensuring that persons with disabilities are not neglected.[24]
22	Prevention and Control of Tropical Diseases Underestimated David Mabey 2014	English	-	-	Review	-	The need for better analysis for NTD regulation and allowance should be the attention of policy creators and funding bodies.[25]
23	Tropical diseases that are taken for granted now and in the future, Clarissa Prazeres Da Costa 2019	English	EHR advances in information technology that are able to communicate so as to create opportunities and obstacles	-	Multi-methods ethnographic study in two teaching hospitals focused on general medical inpatient units	-	The existing communication technology and the way of providing information on the EHR platform are considered as obstacles to the assessment. In particular, the lack of face-to-face and communication the reliance on the paging system between physicians create barriers to prolonged viewing and dialogue of diagnostic determinations. Next, EHR results in information overload and fragmentation of information, making integration for assessment difficult. To improve assessments, doctors recommend changing pagers with 2-way communication features, restructuring EHR to provide access to important data, and upgrading nurseries to EHR systems.[26]
24	Underrated Disease Prevention and Transmission Pilot P. Galvani 2010	English	Advances in disease modeling, including incorporating the latest insights into vector and bacterial environmental science, incorporating evolutionary answers to intervention, and to achieve robust results by expanding the range of sensitivity analysis	-	Review the participation that has been made by mathematical modeling to maximize the intervention strategy of vector-borne neglected diseases	-	Modelers need to consider various factors, such as bacteria and vector development, mixed intervention strategies, recent interventions, and the temporal nature of disease outbreaks in order to carefully estimate the efficacy and cost of interventions, and to calculate outcomes. We have described approaches for shape parameterization and sensitivity analysis which are essential for understanding modeling results. [27]



25	Diseases that are taken for granted and Lorenzo Savioli's 2017 chemotherapy endeavors	English	Presents the protective nature of the chemotherapy intervention shown in a variety of diseases that are targeted in updates regarding the implementation of a given status across the globe.	-	-	-	All drugs in 201 and beyond are used for pain relief and management of lymphatic filariasis (albendazole, ivermectin and DEC) will be available in sufficient quantities to meet the general demand and in most cases as donations [28]
26	Chitosan-plated the process of distributing particulate drugs or vaccines to prevent and treat diseases that are often underestimated areas diseases/SevdaŞenel, Selin Yüksel/2020	English	-	-	-	-	The distribution system that is considered versatile is Chitosan which has physicochemical and adhesive properties. In order to improve healing, chitosan which is bioactive is used, for example, antimicrobial regeneration tissue. [29]
27	reductions to manage partnership programs in controlling understated tropical diseases	English	Escribe selected Outline and end-to-end surveillance initiatives, regulatory arrangements, and financing procedures, include an aggressive drug participation program	-	-	-	In conclusion, we address the challenges posed by peaceful disease control approaches and forms of governance regulations – both nationally and internationally – and share some recommendations for the future. [30]
28	The intent of developing trivial or other diseases: artificial versus fact, Mwele N Malecela 2011	English	The aim for the regulation, elimination or eradication of this condition has been stated in the statement of the Earth Health Agency while the strategy for the regulation or elimination of human disease has been defined in various World Health Organization deeds.	-	-	-	This paper recognizes that in running any health program in an environment such as post-conflict countries, there are always challenges. It is also recognized that NTD control must always be carried out in the context of the health system. However, it is important to emphasize that the availability of donated drugs, the multiple impact of these drugs, the willingness of countries to distribute them, thereby giving their own resources to these programmes, and the outcomes that have proven to be beneficial are greater than problems encountered. in an environment where the community is often beyond the reach of health services. Given the availability of these interventions, broader development impact, their cost-effectiveness . we believe it would be unethical to discontinue programs with such long-term benefits into the “bottom billion”. [31]

29	Vaccines, biopharmaceuticals: Diseases that are underestimated Jonathan Ersching 2015	English	-	-	Review	-	This success opens a new pathway for conventional strategies that could greatly facilitate the vaccine innovation that can be used as a medium to attack viruses and as a medicine and prevention of tropical diseases that are underestimated.[32]
30	Agenda set: Diseases underestimated on diagnosis and roadmap, Patrick J. Lammie 2021	English	-	-	-	-	The World Health Organization created the Diagnostic Technical Advocates Group (DTAG) as a collaborative method to encourage developments in this area. Here, the purpose and position of DTAG is described in the challenging conditions experienced by the NTD program.[33]

To calculate the effects or consequences of NTDs on the spread of other diseases, it is necessary to have innovative collaborations such as the NET Heart activity. In human health care, NTDs must be prioritized as disease management and cannot be ignored. Promising research that equates the outcomes and effects of the two interventions will be needed to determine the participation of the sponsorship bonus, and the underlying method that prompts any change. Implementing mass vaccination is a form of rabies control rate that is currently recommended by WHO. From the recent published MAb assessment research, we identify 3 anti-NS1 MAbs specifically DENV-4: 3H7A9, 8A6F2 and 6D4B10, needed to create effective drugs and vaccines. Partnerships linking key donor agencies, charities, NGOs, regulatory authorities, the pharmaceutical industry, and other essential needs managers are vital in fighting NTDs and enabling access to healing for millions of people around the world. For most inflammations, some evidence exists regarding areas of the area that contribute to the survival of populations of there is a dispensation from the weakness of published experiments regarding the effects of changing air, most notably on vector-borne diseases.

All people in 88 countries have benefited from chemotherapy; this data is from WHO in 2014. Affordable products are in great demand such as medicines, insecticides and diagnostics. There are NTD plans between 2021 and 2030 to be released. Wishing everyone success in the next ten years. We must focus on NTDs and development of health related activities sources of energy to view the business in a more light-hearted way efficient until 2030.

Improving the inclusion of persons with disabilities may need to adapt to the NTD program, such as making the program

physically accessible or training employees on disability understanding; Disease, especially affecting many people living in extreme poverty, especially in the tropics. We characterize the significance of population is very at risk of tropical diseases that are often underestimated, there are deaths, total infected because there is no understanding of this matter. Tropical diseases are diseases that often occur in the tropics as a form of description of disease behavior in colonial and neocolonial times. The mention of tropical diseases should be considered in their daily use. This is because it can be used as a predictor of design and can provide information about neglected objectives in the collection of bonus illustrations.

Health surveillance in the community is still inadequate and very limited in the EHF and MHF pandemics, these conditions are very bad in medical treatment. opportunities to develop, fund, participate and improve health programs are very important and necessary. The aim of the program is to ensure that all communities, especially persons with disabilities, can be monitoredAs for how to manage MPAs and avoid tropical diseases, it is not yet fully understood between physicians create barriers to prolonged viewing and dialogue of diagnostic determinations. Next, EHR results in information overload and fragmentation of information, making integration for assessment difficult. Modelers need to consider various Intervention tactics, vector enhancement are some of the factors that have recently had a temporal nature to pandemics and disease. Therefore we are advised to be more careful in terms of disease management, costs and results. The explanation has an approach and form of analysis that is both sensitive and important for understanding modeling results.

Control and elimination were used in 2012 by considering all drugs used of lymphatic filariasis (albendazole, ivermectin and

DEC) will be available Globally, it is sufficient to fulfill what is needed and in the large majority of the cases as a donation; that some donors are willing to invest their resources in the Lymphatic Filariasis Preliminary Program (GPELF); And if more countries continue to complete mapping guidance and are MDA has been prepared and ready to start, In the next five years all experts assume that a continuous improvement in terms of computerization will occur which covers the geographical scope and may be successful in 2015 especially in co-endemic countries and co-endemic countries in 2015 and 2016 countries of oasis co endemic. ( 22)

All are confident and have ambitions that the endemic in the region will be handled properly. Availability of drugs is the main focus in the chapter on distribution and donation, especially doubling of drugs to be distributed. Provide the main source of energy for the program and there is strong evidence of intractable problems for areas especially areas that are far from the reach of health care. Frequently remembered availability of this intervention, the efficiency of payments and the impact of greater development, we believe it would be wrong to discontinue such long-term useful programs in the “bottom billion”. The The diagnostic techniques established by WHO are Advocates Group (DTAG) as a collaborative method to encourage developments in those countries. Therefore, the aim or position of DTAG is explained in the challenging conditions experienced by the NTD program.

## CONCLUSION

The results of data extraction it can be concluded that NTDs is a neglected disease even though this disease can last a long time and interfere with personal, family and community activities and productivity. The Government of Indonesia have reviewed and analyzed various efforts to prevent this disease, reduce its impact and reduce mortality. The central and local governments must work well together to find solutions to this problem, and public awareness to live clean and healthy to prevent NTDs.

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