

Jennifer P. Wisdom^{1*}, Pamela Juma², Beatrice Mwangomba^{3,4,5}, Catherine Ndinda^{6,7}, Clarisse Mapa-Tassou^{8,9}, Felix Assah^{8,9}, Misheck Nkhata^{10,11}, Shukri F. Mohamed², Oladepo Oladimeji¹², Opeyemi Oladunni¹², Mojisola Oluwasanu¹², Saliyou Sanni¹³, Jean-Claude Mbanya^{8,9} and Catherine Kyobutungi²

Abstract

Background: The World Health Organization's Framework Convention on Tobacco Control, enforced in 2005, was a watershed international treaty that stipulated requirements for signatories to govern the production, sale, distribution, advertisement, and taxation of tobacco to reduce its impact on health. This paper describes the timelines, context, key actors, and strategies in the development and implementation of the treaty and describes how six sub-Saharan countries responded to its call for action on tobacco control.

Methods: A multi-country policy review using case study design was conducted in Cameroon, Kenya, Nigeria, Malawi, South Africa, and Togo. All documents related to the WHO Framework Convention on Tobacco Control and individual country implementation of tobacco policies were reviewed, and key informant interviews related to the countries' development and implementation of tobacco policies were conducted.

Results: Multiple stakeholders, including academics and activists, led a concerted effort for more than 10 years to push the WHO treaty forward despite counter-marketing from the tobacco industry. Once the treaty was enacted, Cameroon, Kenya, Nigeria, Malawi, South Africa, and Togo responded in unique ways to implement tobacco policies, with differences associated with the country's socio-economic context, priorities of country leaders,

Background

The background of the study is the need for a more effective and efficient way to manage the data generated by the Internet of Things (IoT) devices. The data generated by these devices is growing exponentially, and it is becoming increasingly difficult to store and manage this data. The current methods of data storage and management are not scalable and are not able to handle the large volume of data generated by IoT devices. The proposed solution is a cloud-based data storage and management system that is designed to be scalable and able to handle the large volume of data generated by IoT devices. The system is based on a distributed architecture and uses a combination of cloud storage and edge computing to store and manage the data. The system is designed to be secure and to provide a high level of availability and reliability. The system is also designed to be easy to use and to integrate with existing IoT devices and applications. The system is being developed and tested in a real-world environment to demonstrate its effectiveness and efficiency. The results of the study will be used to inform the design and development of future IoT data storage and management systems.

1. The first step in the policy-making process is to identify the problem.

Factors shaping policy implementation

2. The second step is to develop a policy proposal. This involves identifying the goals of the policy and the resources needed to implement it.

Key players

3. The third step is to gain support for the policy proposal. This involves identifying the key players who will be affected by the policy and building a coalition of supporters.

Quality of the policy

4. The final step is to implement the policy. This involves putting the policy into effect and monitoring its progress.

The authors declare that they have no competing interests.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

A

¹Wisdom Consulting, New York, NY, USA. ²African Population Health Research Centre, Nairobi, Kenya. ³Lighthouse Trust, Lilongwe, Malawi. ⁴School of Public Health and Family Medicine, College of Medicine, University of Malawi, Blantyre, Malawi. ⁵Global Health Implementation Programme, School of Medicine, University of St. Andrews, St. Andrews, Scotland. ⁶Human Science Research Council, Pretoria, South Africa. ⁷University of KwaZulu-Natal, Durban, South Africa. ⁸Department of Public Health, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Yaoundé, Cameroon. ⁹Health of Population in Transition Research Group (HoPIT), Yaoundé, Cameroon. ¹⁰Anthropology Department, Catholic University of Malawi, Lilongwe, Malawi. ¹¹Department of Anthropology, Durham University, Durham, England. ¹²African Regional Health Education Centre, Department of Health Promotion and Education, Faculty of Public Health, University of Ibadan, Ibadan, Nigeria. ¹³School of Health Systems and Public Health, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa.

1. World Health Organization. WHO framework convention on tobacco control. Geneva: 2003.
2. World Health Organization. Parties to the WHO Framework Convention on Tobacco Control. 2017. [Online]. [cited 25 Sept 2017. Available from: http://www.who.int/fctc/signatories_parties/en/.
3. World Health Organization. History of the World Health Organization framework convention on tobacco control. Geneva; 2009.
4. World Health Organization. Global action plan for the prevention and control of noncommunicable diseases 2013-2020; 2013.
5. World Health Organization Regional Office for Africa. The WHO framework convention on tobacco control: 10 years of implementation in the African region. Brazzaville: 2015.
6. Yach D, Bettcher D. Globalisation of tobacco industry influence and new global responses. *Tob Control*. 2000;9:206–16.
7. Lee S, Ling PM, Glantz SA. The vector of the tobacco epidemic: tobacco industry practices in low and middle-income countries. *Cancer Causes Control*. 2012;23(1):117–29.
8. Sebrie E, Glantz SA. The tobacco industry in developing countries has forestalled legislation on tobacco control. *Br Med J*. 2006;332:313–4.
9. Green E. Land concentration, institutional control, and African agency: growth and stagnation of European tobacco farming in Shire Highlands, c 1900-1940, African economic history working paper series. Sweden: African Economic History Network; 2012.
10. Townsend L, Flisher AJ, Gilreath T, King G. A systematic literature review of tobacco use among adults 15 years and older in sub-Saharan Africa. *Drug Alcohol Depend*. 2006;84:14–27.
11. Nturibi EM, Kolawole AA, McCurdy SA. Smoking prevalence and tobacco