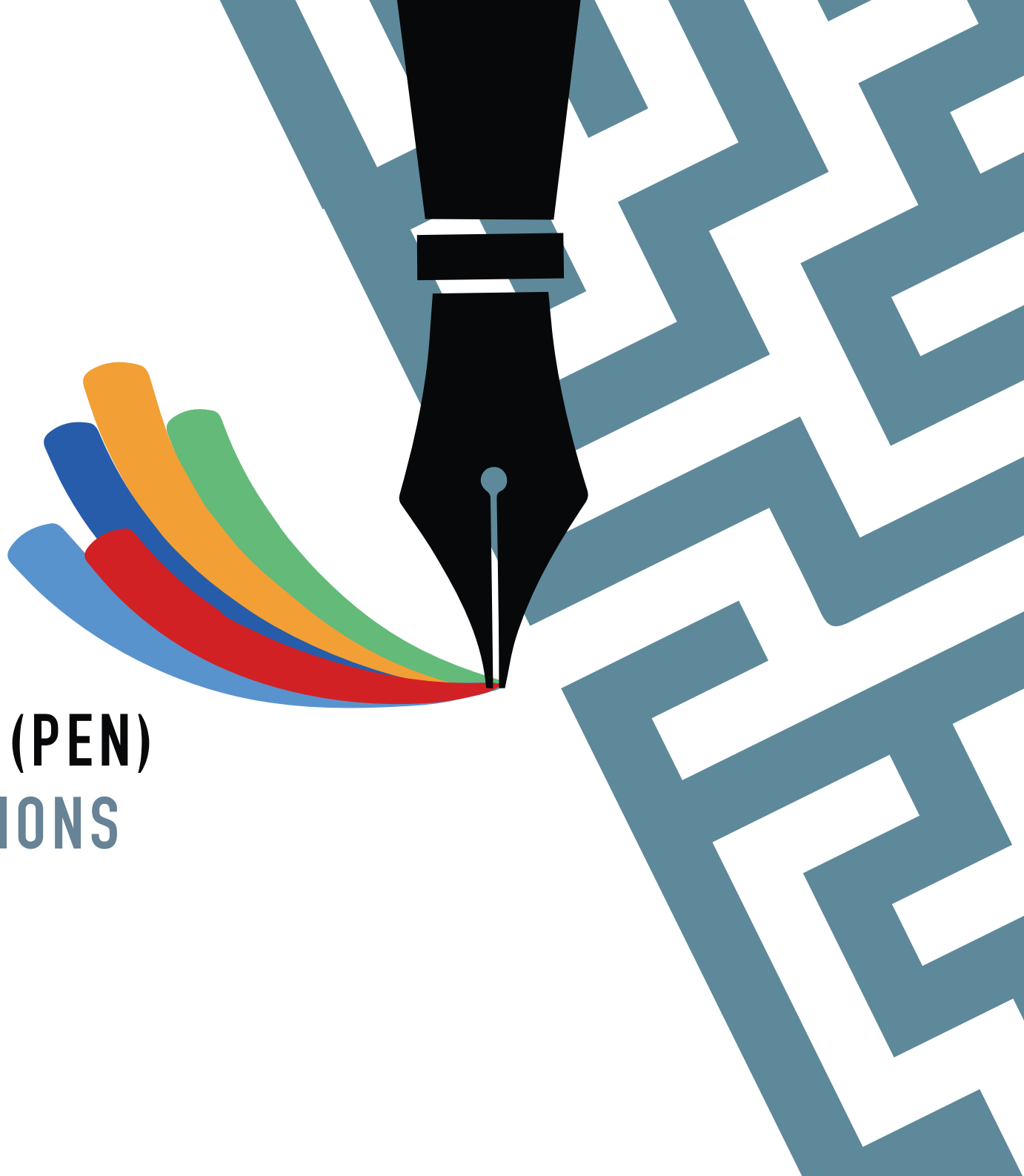


**WHO PACKAGE
OF ESSENTIAL
NONCOMMUNICABLE (PEN)
DISEASE INTERVENTIONS**

FOR PRIMARY HEALTH CARE



**World Health
Organization**



WHO package of essential noncommunicable (PEN) disease interventions for primary health care

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FOREWORD

The adoption of the Global Strategy for the Prevention and Control of Noncommunicable Diseases (NCDs) at the World Health Assembly in 2000 was an act of solidarity with the many low- and middle-income countries facing the catastrophic consequences of NCDs. It was also an acknowledgement that the long-term needs of people living with NCDs were being neglected, and was a turning point that has inspired action over the past two decades.

The risk of a 30-year-old person dying from any of the four major NCDs (cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes) before the age of 70 years declined by 15% globally between 2000 and 2012. This rapid improvement was largely due to policy, legislative and regulatory measures put in place to provide more people with access to screening; early diagnosis and treatment for hypertension (such as aspirin, beta blockers, diuretics and statins); and to protect people against tobacco use (such as through tobacco-control legislation).

Despite the important progress made in the first decade of the 21st century, momentum has since dwindled, with annual reductions in age-standardized premature mortality rates slowing for the main NCDs. Between 2000 and 2016 overall NCD risk declined only 18% globally – with the risk of diabetes showing a 5% increase. In the past two decades NCDs have killed 200 million women and men aged between 30 and 70 years, the majority living in low- and middle-income countries. Most of these premature deaths could have been avoided. Unless immediate action is taken, Sustainable Development Goal (SDG) target 3.4 (reduce premature mortality from NCDs by one third) by 2030 will not be met. It is therefore more important than ever for the global community to mobilize for accelerated action to progressively cover 1 billion additional people with essential health services and medicines for the prevention and control of NCDs.

WHO has been providing guidance to advance this work. The Package of essential noncommunicable (PEN) disease interventions for primary health care in low-resource settings was first introduced in 2010 as a prioritized set of cost-effective interventions able to deliver an acceptable quality of care, even in resource-limited settings. Information on the cost-effectiveness of the interventions helped to make limited resources go further. From 2010, many additional elements were added and in 2013 a comprehensive set of tools was developed. The total cardiovascular risk assessment charts and management of type 2 diabetes were further updated in 2019.

The result today is this user-friendly WHO package of essential noncommunicable (PEN) disease interventions for primary health care resource, which brings together all these updates as protocols that are adaptable to local settings and able to empower primary care physicians, as well as allied health workers, to contribute to NCD management. WHO PEN is not meant to be exhaustive or prescriptive, but rather to be an important first step for integration of NCD management into primary health care. WHO PEN is also suitable for emergency and humanitarian settings. When implemented, it will bring more people living with or affected by NCDs into contact with the health system and promote universal health coverage.

Dr Bente Mikkelsen

Director, Department of Noncommunicable diseases

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The World Health Organization would like to thank all the contributors external collaborators, reviewers and WHO staff whose dedication, support and expertise over many years have made possible this latest edition of the WHO PEN.

ABBREVIATIONS

CKD	chronic kidney disease
COPD	chronic obstructive pulmonary disease
CRD	chronic respiratory diseases
CVD	cardiovascular diseases
HDL-C	high-density lipoprotein cholesterol
HPV	human papilloma virus
NCD	noncommunicable diseases
PHC	primary health care
TC	total cholesterol
UHC	universal health coverage
WHO	World Health Organization

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Countries with inadequate health insurance coverage are unlikely to provide universal access to essential NCD interventions. Yet NCD management interventions are essential for achieving the global target of a 25% relative reduction in the risk of premature mortality from NCDs by 2025, and the SDG target of a one-third reduction in premature deaths from NCDs by 2030.

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An integrated approach is particularly important for low-resource settings for efficient use of limited resources. Several approaches are needed to contain the escalating costs of health care required for providing sophisticated medical services for NCDs and their complications. First, there should be more investment in prevention and primary care. Second, the cost of treating CVD, diabetes and COPD can be reduced to a minimum by carefully selecting essential evidence-based interventions. Third, the cost of treating complications of NCDs that require hospitalization (e.g. heart attacks, strokes, amputations, and blindness due to diabetic or hypertensive retinopathy, or end stage renal disease requiring dialysis) can be reduced.

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WHO Package of Essential NCD interventions will help to improve the coverage of appropriate services for people with NCDs services in primary care settings.

WHO package of essential noncommunicable (PEN) disease interventions for primary health care

The Package of essential noncommunicable (PEN) disease interventions for primary health care in low-resource settings, first published in 2010, is a prioritized set of cost-effective interventions that can be delivered to an acceptable quality of care, even in resource-poor settings. The interventions were updated in 2017 as the “best buys” and other recommended interventions for the prevention and control of noncommunicable diseases. Modules of the WHO HEARTS technical package were released in 2019–2020.

This version, WHO package of essential noncommunicable (PEN) disease interventions for primary health care (WHO PEN), is developed by integrating these additional technical guidance to serve as an important first step for integration of NCD into PHC and for reforms that need to cut across the building blocks of the national health system. It provides protocols and tools for NCDs to strengthen national capacity to integrate and scale up care of NCDs in primary health care.