

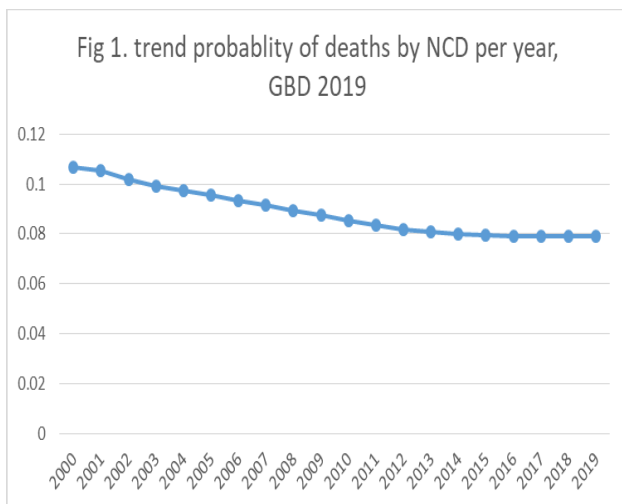


Probability of death by NCD in Ethiopia

Probability of death is the probability that a person dies during an interval of two ages given that the rates of all-cause mortality in a specified year of interest would remain constant into the future. The objective of this evidence brief is to show the current estimate of the probability of deaths by major NCDs in Ethiopia as an input for policy

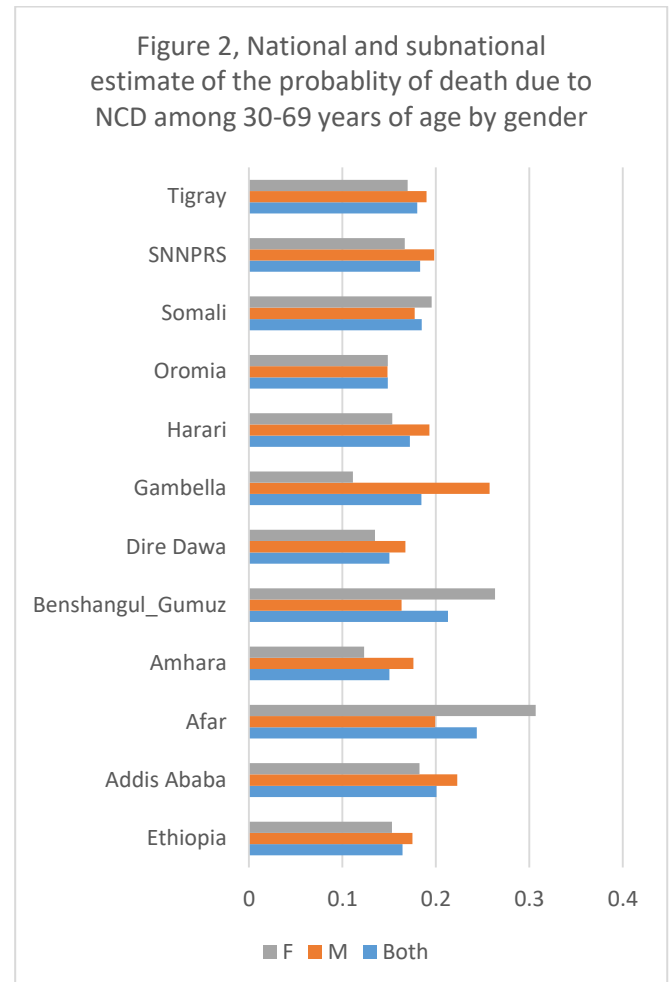
Key findings

- ✓ The crude probability of death by NCD at age45q15(15-60 years) in 2019 was nearly 8% (0.079)
- ✓ The probability of death is higher in males than females (8.8%vs6.9%)
- ✓ The trend probability of death due to NCD remains more or less constant in the past 10 years.



- ✓ The probability of death by NCD is higher in Afar as compared with national estimate. [Afar=0.24, 95% UI; 0.21-0.28) Ethiopian national estimate =0.16 (0.14-0.18)
- ✓ In Benshangul regional state, the probability of dying by NCD is significantly higher on Females than males F=0.26, 95%UI: 0.2-0.3)]

- ✓ The probability of death by NCD seems lower in Oromia and Amhara regional states (Fig 2)

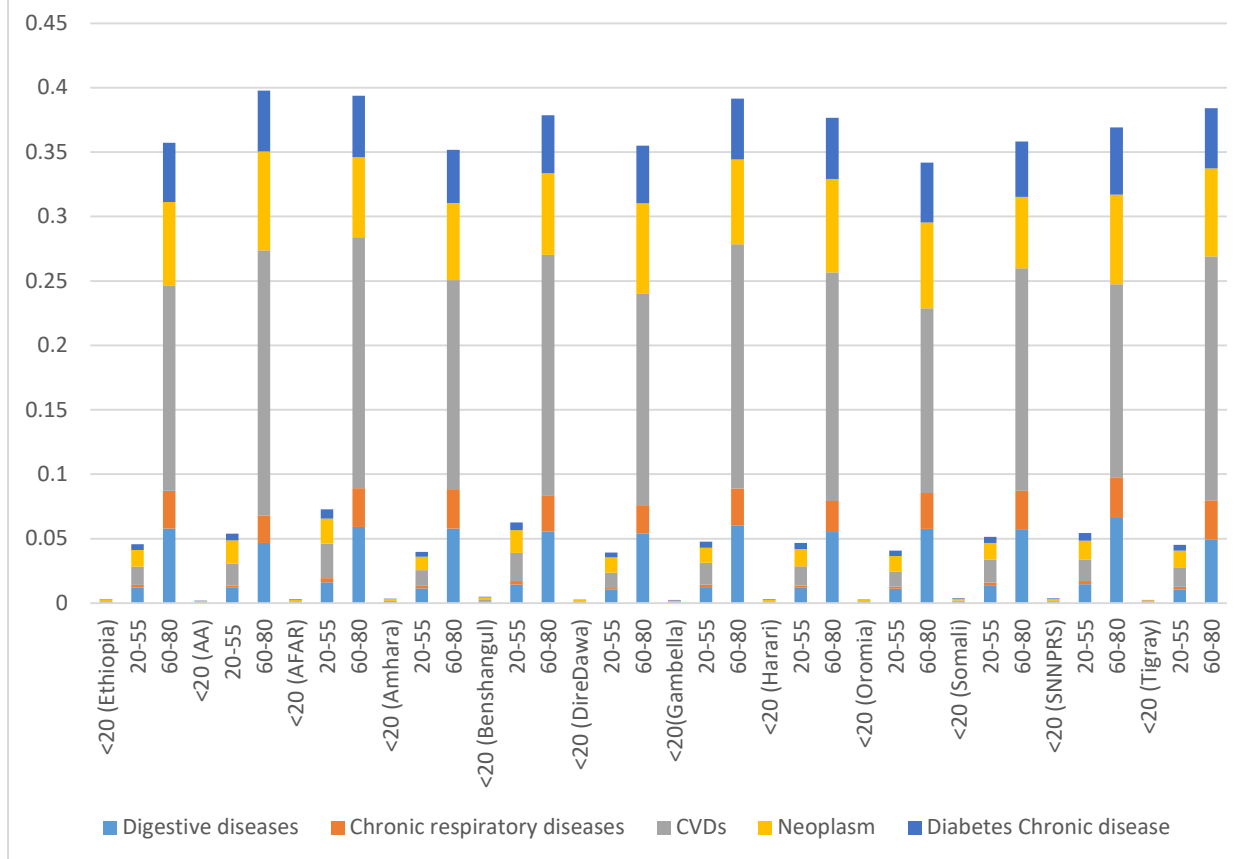


Probability of death by major NCDs by age and regional estates

- ✓ As age increases the probability of dying due to NCD is also increases
- ✓ The probability of death by CVDs, neoplasm and digestive diseases is higher across regional states (Figure 3).
- ✓ In lowest probability of death by CVDs at age more than 60 was in Oromia (0.143) and the highest was Addis Ababa (0.20) (Figure 3)

- ✓ It seems the probability of death by neoplasm is higher in urban settings (Addis Ababa, Dire Dawa and Harari) (Figure 3)

Figure 3, national and subnational estimate of probability of death by age and selected NCD, GBD 2019



Comparison of the probabilities of deaths at different ages

Probability of death at 20q0 (<20 years) GBD 2019 rank, Ethiopia	Probability of death at 35q20(20-55 years) GBD 2019 rank, Ethiopia	Probability of death at 20q60 (60-80 years), GBD 2019 rank, Ethiopia
1 Maternal & neonatal	1 Respiratory infections & TB	1 Cardiovascular diseases
2 Enteric infections	2 HIV/AIDS & STIs	2 Respiratory infections & TB
3 Respiratory infections & TB	3 Cardiovascular diseases	3 Neoplasms
4 Other infectious	4 Neoplasms	4 Digestive diseases
5 Other non-communicable	5 Digestive diseases	5 Diabetes & CKD
6 NTDs & malaria	6 Enteric infections	6 Enteric infections
7 HIV/AIDS & STIs	7 Self-harm & violence	7 Chronic respiratory
8 Unintentional inj	8 Maternal & neonatal	8 Unintentional inj
9 Nutritional deficiencies	9 Unintentional inj	9 Neurological disorders
10 Neoplasms	10 Diabetes & CKD	10 Self-harm & violence
11 Transport injuries	11 Other infectious	11 Other infectious
12 Digestive diseases	12 Transport injuries	12 Transport injuries
13 Self-harm & violence	13 Chronic respiratory	13 Other non-communicable
14 Cardiovascular diseases	14 NTDs & malaria	14 Nutritional deficiencies
15 Diabetes & CKD	15 Other non-communicable	15 HIV/AIDS & STIs
16 Neurological disorders	16 Nutritional deficiencies	16 NTDs & malaria
17 Chronic respiratory	17 Neurological disorders	17 Skin diseases
18 Skin diseases	18 Substance use	18 Substance use
19 Musculoskeletal disorders	19 Skin diseases	19 Musculoskeletal disorders
20 Substance use	20 Musculoskeletal disorders	
21 Mental disorders	21 Mental disorders	

Conclusion:

- ✓ The overall probability of deaths by NCD was 7.9%.
- ✓ The probability of death by NCD is highest at age more than 60 years.
- ✓ The probability of death by CVDs is the highest from NCDs
- ✓ Unlike other regional states the probability of death by NCD in Benshangul and Afar was higher on Females than Males

Acknowledgment

The National Data Management Center for health at EPHI works in collaboration with the Global Burden of Diseases study group at the Institute for Health Metrics and Evaluation at the University of Washington. The GBD study is a systematic, scientific effort to quantify the comparative magnitude of health loss from diseases, injuries, and risks by age, sex, and population over time. The study includes contributions of more than 400 Ethiopian researchers. The goal of the study is to provide decision-makers with the best possible and most up-to-date evidence on trends in population health. Estimates of select health outcomes and related measures, including child growth failure, vaccine coverage, malaria, HIV/AIDS, TB, diarrhea, LRI, and the pandemic potential of five zoonotic infectious diseases, at local resolution – typically 5x5 km. Learn more at www.healthdata.org/Ibd.