CRDs IN MOZAMBIQUE

ELIZABETE NUNES

13TH GARD GENERAL MEETING
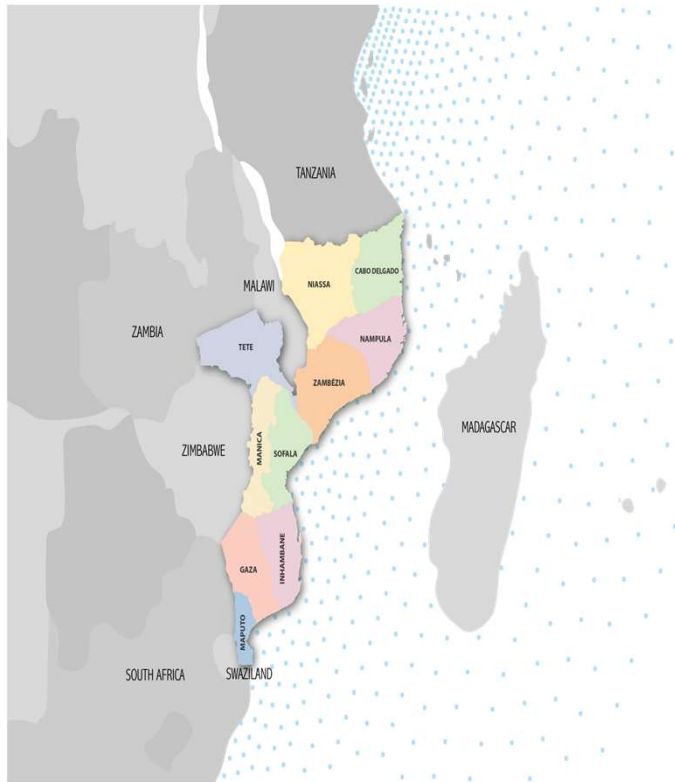
25-27 October 2019

BEIJING, CHINA

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ELIZABETE NUNES; 16/10/2019

MOZAMBIQUE

LIC

1. Population **29.7 million** ↑

2. **Life expectancy at birth of 58.9 years** ↑

3. **36% living in urban areas** ↑
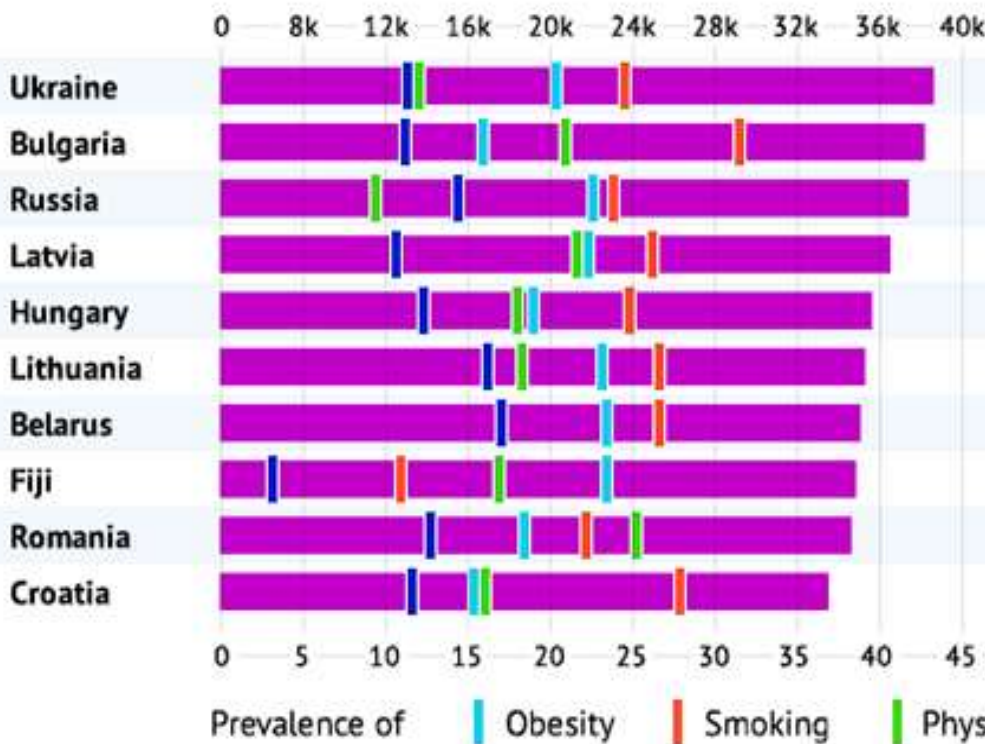
MOZAMBIQUE

**is facing a growing burden
of NCD/CRDs & A SYNERGY OF EPIDEMICS**
(*TB/TB MDR,HIV, Malaria and infections in
 young children*) that produce
complex sequelae and share common
underlying social drivers

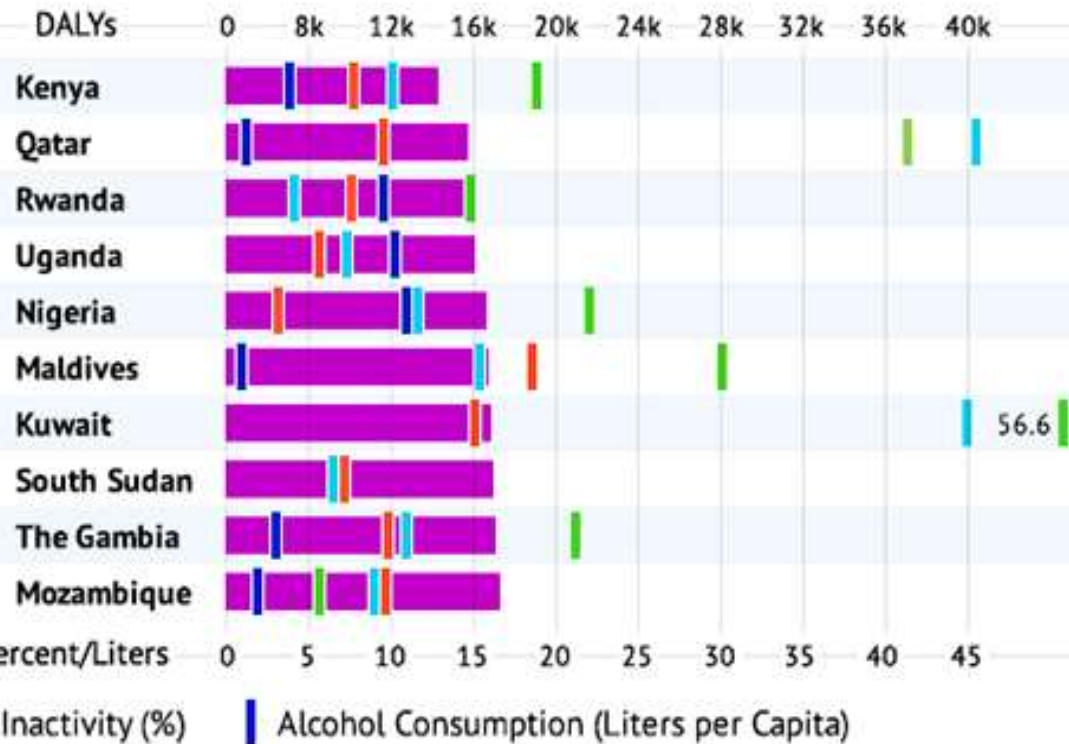# Non-Communicable Diseases: Drawing Global Attention to Major Risk Factors

NCD Burden in Disability-Adjusted Life Years per 100,000 (DALYs)
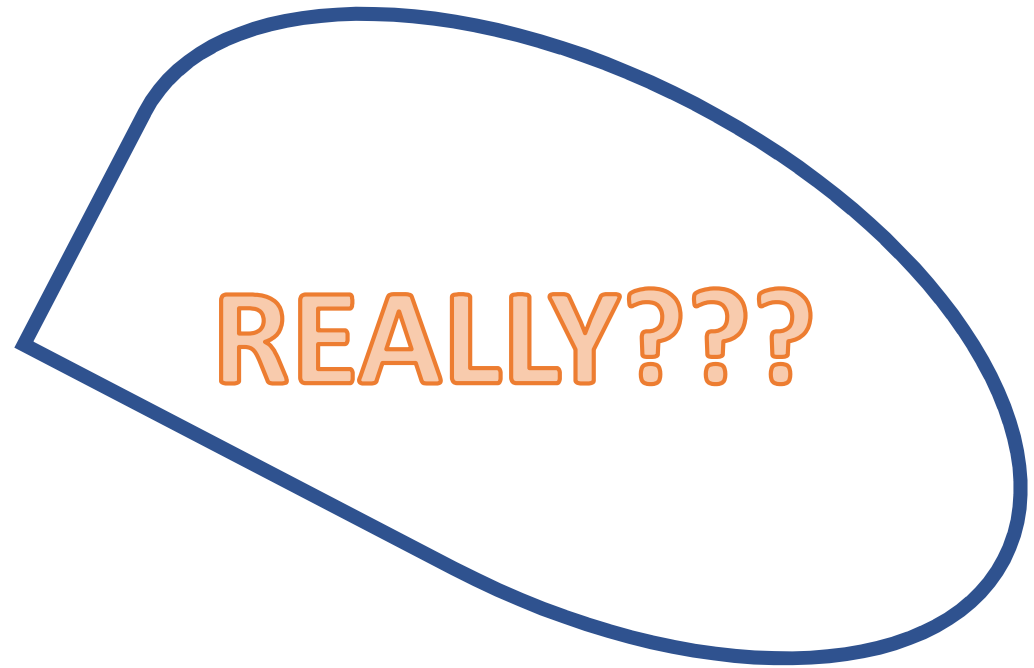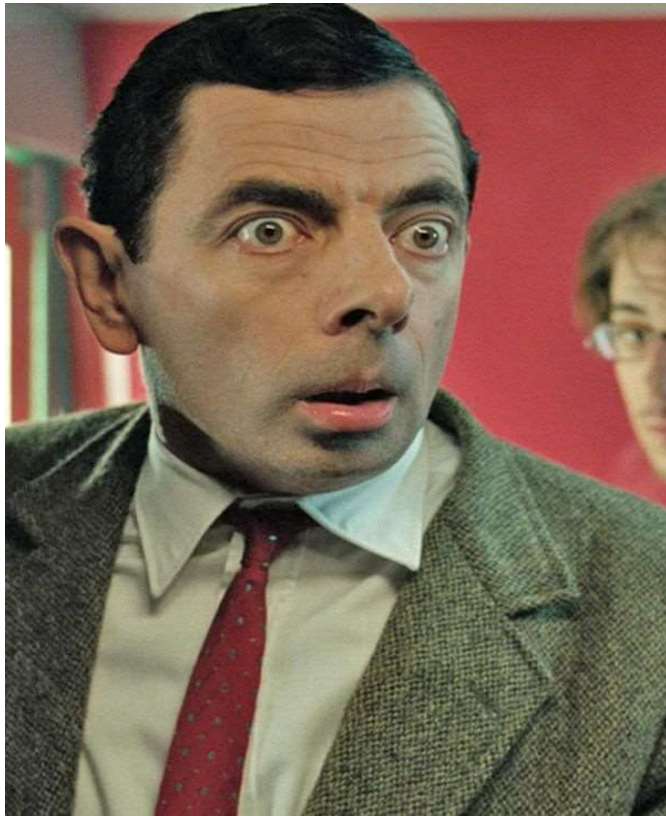
VIZ of the DAY

10 COUNTRIES WITH THE HIGHEST NCD PREVALENCE

Country	DALYs
Ukraine	
Bulgaria	
Russia	
Latvia	
Hungary	
Lithuania	
Belarus	
Fiji	
Romania	
Croatia	

10 COUNTRIES WITH THE LOWEST NCD PREVALENCE

Country	DALYs
Kenya	
Qatar	
Rwanda	
Uganda	
Nigeria	
Maldives	
Kuwait	56.6
South Sudan	
The Gambia	
Mozambique	

Prevalence of: Obesity · Smoking · Physical Inactivity (%) · Alcohol Consumption (Liters per Capita)

knoema

REALLY???

Countries with high rate in ambient air pollution attributable death (per 100,000 population), in the African Region (Data source: WHO, 2016)

Country	Percent
Liberia	69.6
DR Congo	66.9
Burundi	66.0
CAR	66.0
Malawi	66.0
Zimbabwe	62.9
UR Tanzania	62.1
Rwanda	61.8
Mozambique	61.7
Burkina Faso	60.5
Togo	60.3

Percent
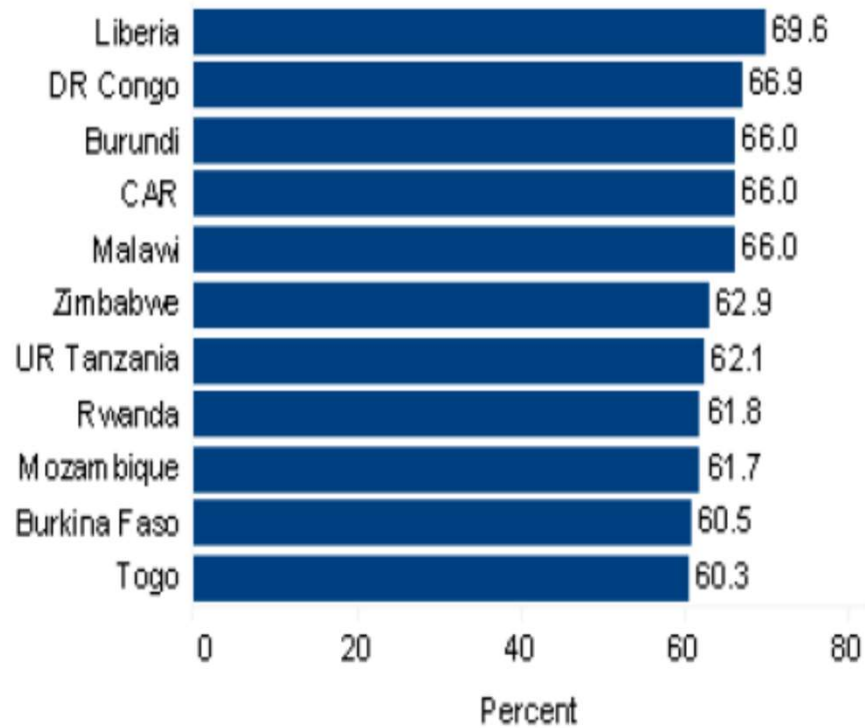
Atlas of African Health Statistics 2019

COMMON RISK FACTORS FOR THE CHRONIC RESPIRATORY DISEASES

TB + HIV

95% of households in Mozambique burn solid fuels for cooking, contributing to elevated indoor and outdoor fine particulate matter (PM2.5)

Predictors of personal exposure to black carbon among women in southern semi-rural Mozambique

Ariadna Curto[a,b,c,*], David Donaire-Gonzalez[d,e], Maria N. Manaca[f], Raquel González[c,f,g], Charfudin Sacoor[f], Ioar Rivas[h,i], Mireia Gascon[a,b,c], Gregory A. Wellenius[j], Xavier Querol[h], Jordi Sunyer[a,b,c,k], Eusébio Macete[f], Clara Menéndez[c,f,g], Cathryn Tonne[a,b,c]

- Mozambican women using kerosene lamps, as the main source of energy for lighting, have higher exposure (81%) to **black carbon particles** compared to those who use electricity.

- These women **are breathing air with higher concentrations of black carbon !!**

Environment International 131 (2019) 104962
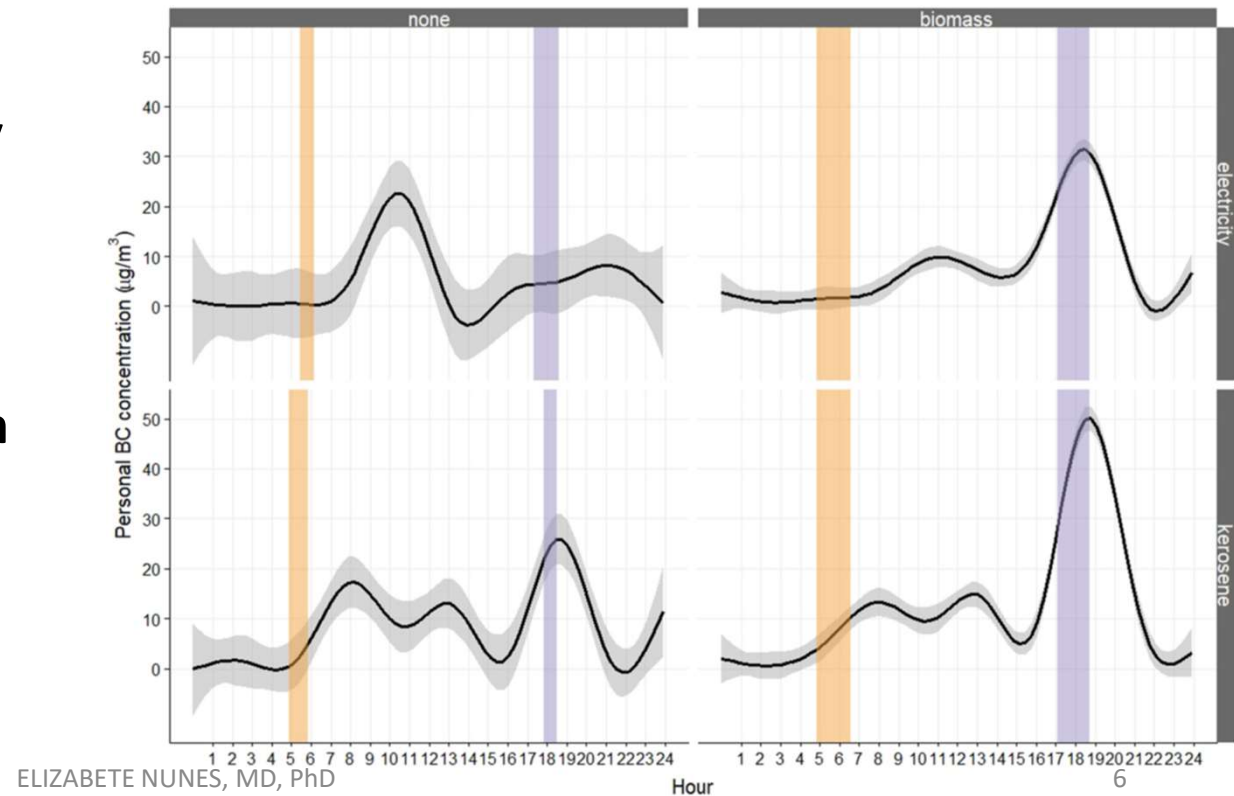
ASSESSMENT OF ROAD TRANSPORT GAS EMISSIONS IN MAPUTO CITY

• **Evaporative Emissions**

• **Exhaust Emissions**

- **CO_2 (Carbon dioxide) is the most emitted pollutant** in the city by **all vehicle categories**,

- **Lead is the metal most emitted by all types of transport using gasoline**, accounting for about 95% of total metal emissions.

Source : **Magaia, Natália Isabel**

# THE FREQUENCY OF CRDS IN THE MAPUTO CENTRAL HOSPITAL (2017/ 2018)

- In 60,544 patients, 5% had a CRDs as primary diagnosis **&** mortality 1.74% (ICD-10 coding of discharge diagnoses)

- *Asthma was predominant* (61%), related to Pulmonary TB (26.%).

- *Cardio Pulmonary Ds (*6,8%)

- *Sequel of TB (4%)*

- *COPD (1,8%)*

Frequency of CRDs in hospital, 2017 e 2018
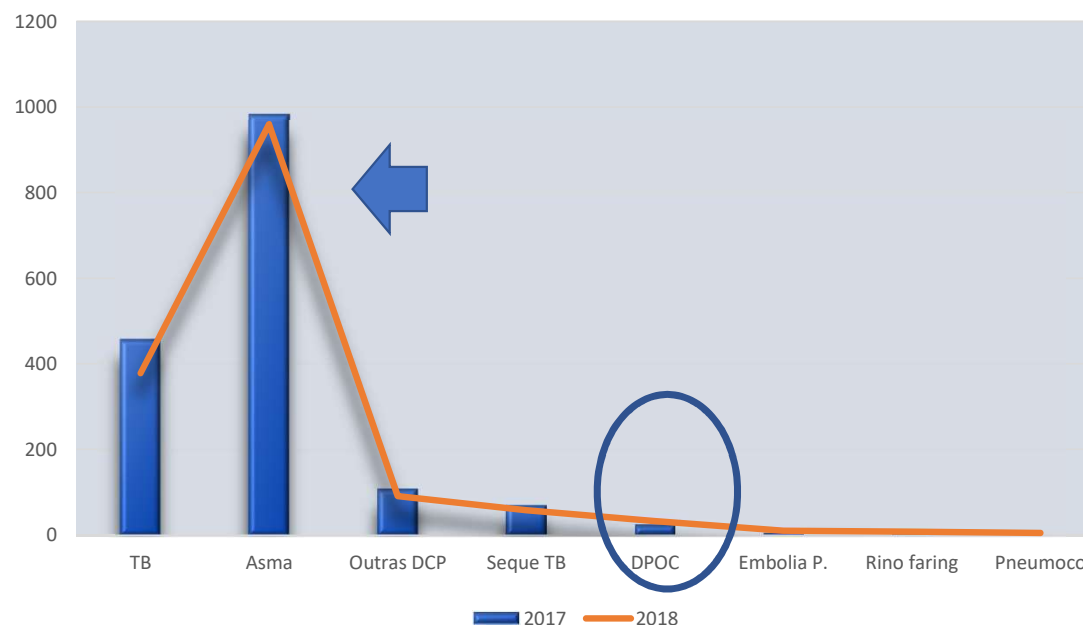
Sudy on EMERGENCY DEPARTMENT of 3 tertiary care hospitals from cities of Mozambique to identify patterns of CDs and NCDs, all age, April -October 2016/2017
7809 participants

Fig 7. Pattern of CD, NCD and injury according to age profile.
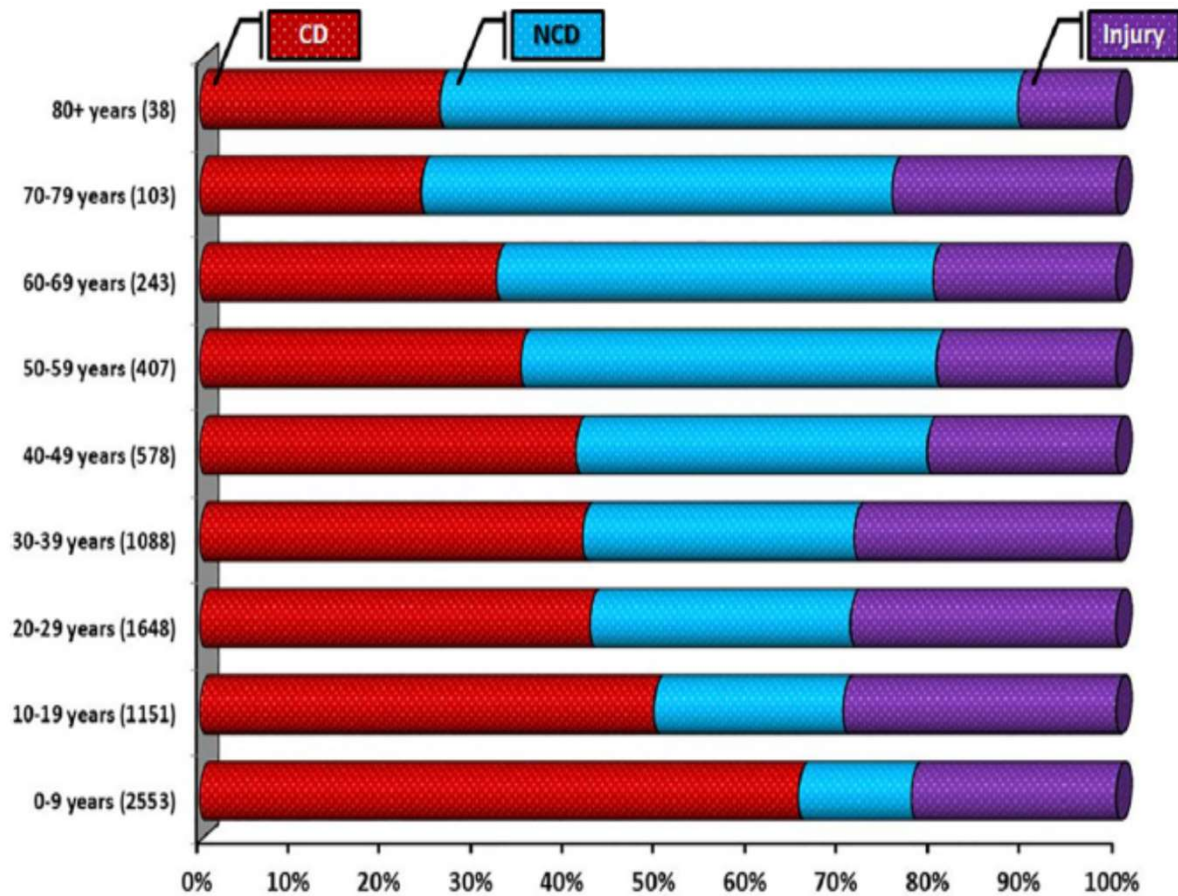
Main Forms of RDs in the emergency presentations

- **22.6% RDs;**
- *URI 60% , LRI 24.6%*
- *Asthma 12.%*
- Dual burden occurrence of infections and non-communicable RD

RISK FACTORES REFERED

- High usage of biomass fuels (90%)
- Previous TB (86,5%)
- High prevalence of HIV (21% Women)

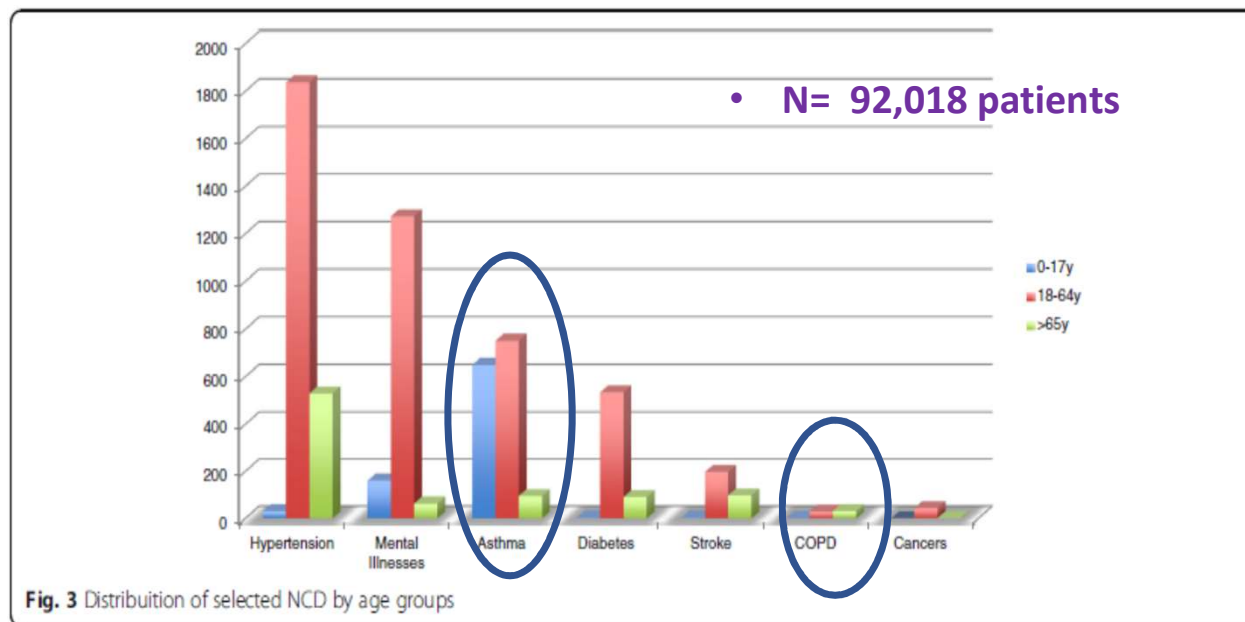**Mocumbi et al . BMC Public Health (2019) 19:147**

Incorporating selected non-communicable diseases into facility-based surveillance systems from a resource-limited setting in Africa

A. O. Mocumbi[1,2,3]*, D. C. Langa[1,3], S. Chicumbe[1], A. E. Schumacher[4] and W. K. Al-Delaimy[5]

Fig. 3 Distribuition of selected NCD by age groups

- N= 92,018 patients

- Study in a secondary level hospital (urban), (2014-2015), **12 months**

- T**he burden and profil of NCDs**

- **The profissional are training for the diagnoses and registation of NCDs**

Prevalence (%) of COPD in different countries.
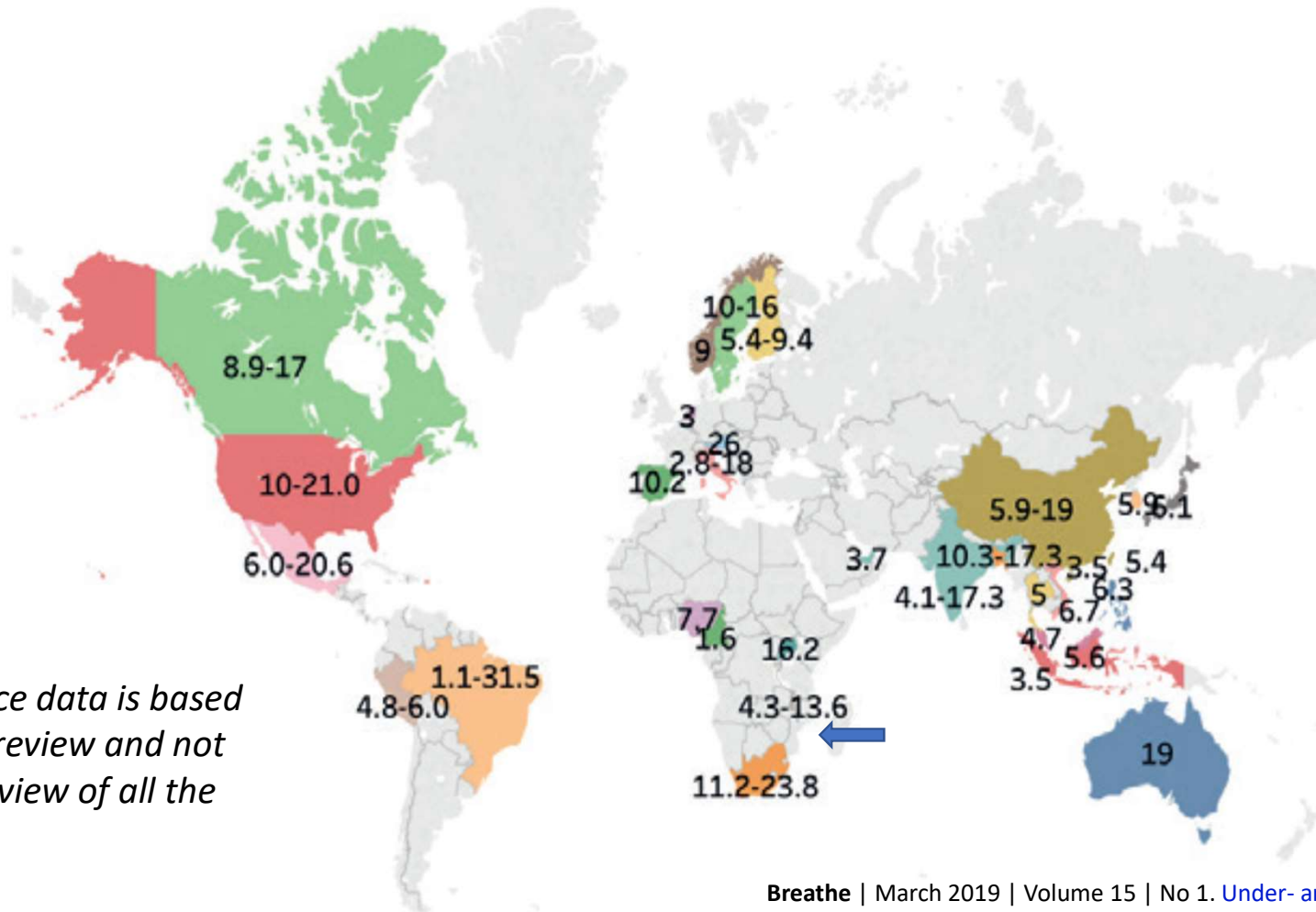
The prevalence data is based on narrative review and not systematic review of all the literature

CHALLENGES

Main causes of mortality are infectious diseases and so CRDs are important but not a priority.

Lack of nationwide, community-based data on the epidemiology of CRDs particularly on COPD

COPD:Underdiagnosis and H.Resources no prepared to **identify and treat CRD**

Difficult access to WHO essential medicines for CRDs

GARD–CPLP

- Double burden for health systems: **infectious diseases & increasing NCDs;**

- **SAME** risk factors (**RF**): **IAP; TB; TB/HIV;**

- Non epidemiological information for COPD, occupational Diseases and (**RF**) monitoring

- Difficult access to WHO' "list of essential medicines" to CRDs;

- Non availability of spirometry

- H.Resources no prepared to **identify and treat CRD**

ACTIVITIES DEVELOPED TO IDENTIFY AND STOP THE GROWTH OF CRDS

2019 Building a Spirometry Network

1. ***Supply of* spirometers** in provinces of the country by the National Programa of Occupational Diseases.

2. **Spirometry Training** to clinicians for increase capacity of diagnosis of COPD, pneumoconiosis

ELIZABETE NUNES, MD, PhD
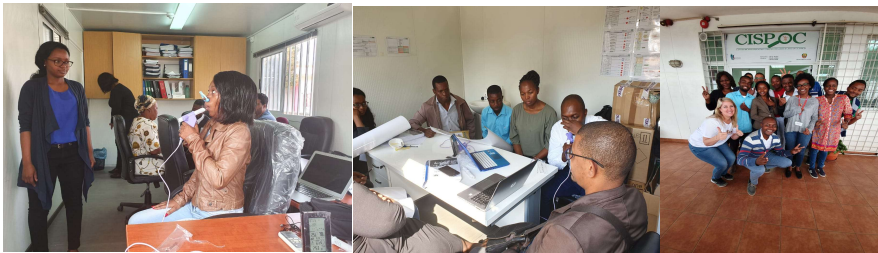
ACTIVITIES TO IDENTIFY AND STOP THE GROWTH OF CRDs

3- **NATIONAL TRAINING OF CLINICIANS OF PROVINCES AND DISTRICTS** (*Telemedicine*) :

Asthma, COPD, Pneumoconiosis.

4- **CREATED A PLATFORM OF NCDS (www.telessaude.co.mz)** *for:*

Scientific information about CRDs; epidemiological studies, guidelines, respiratory diseases programs (National and CPLP)

5. COORDENATION WITH MOH to Access & distribution of essential medicines for Asthma, COPD at different levels of health care

FUTURE APPROACH

NEXT 5 YEARS

1- IMPLEMENTATION OF PAL OR PACK AT COMUNITY

KANIMAMBO
Thank you

ELIZABETE NUNES, MD, PhD