

The Global Asthma Network (GAN) Overview



www.globalasthmanetwork.org

Vision of GAN

A world where no-one suffers from asthma





Mission of GAN

To prevent asthma and improve asthma care globally with a focus on low and middle income countries.

GAN will achieve this through enhanced surveillance, research, capacity building, and access to effective asthma care including quality assured essential medicines.

Need for improved surveillance and monitoring for asthma



Need for improved surveillance and monitoring

Dr Margaret Chan, Director of WHO, said in 2012



“Accurate assessment of the global, regional and country health situation and trends is critical for evidence-based decision making in public health.... The real need is to close the data gaps”.

For asthma who is doing this?

UN Sustainable Development Goals 2015



Target 3.4: to “*reduce by one third premature mortality from NCDs through prevention and treatment.....*”

For asthma how will we know?

Global Burden of Disease programme

Estimates:

- mortality
- prevalence
- disability adjusted life years (DALYs)
- years lived with disability (YLD)
- risk factors

Need time trends of these to understand burden of disease, risk factors and outcomes of changes

For asthma where is the next lot of data for GBD going to come from?

Global asthma data is now OLD

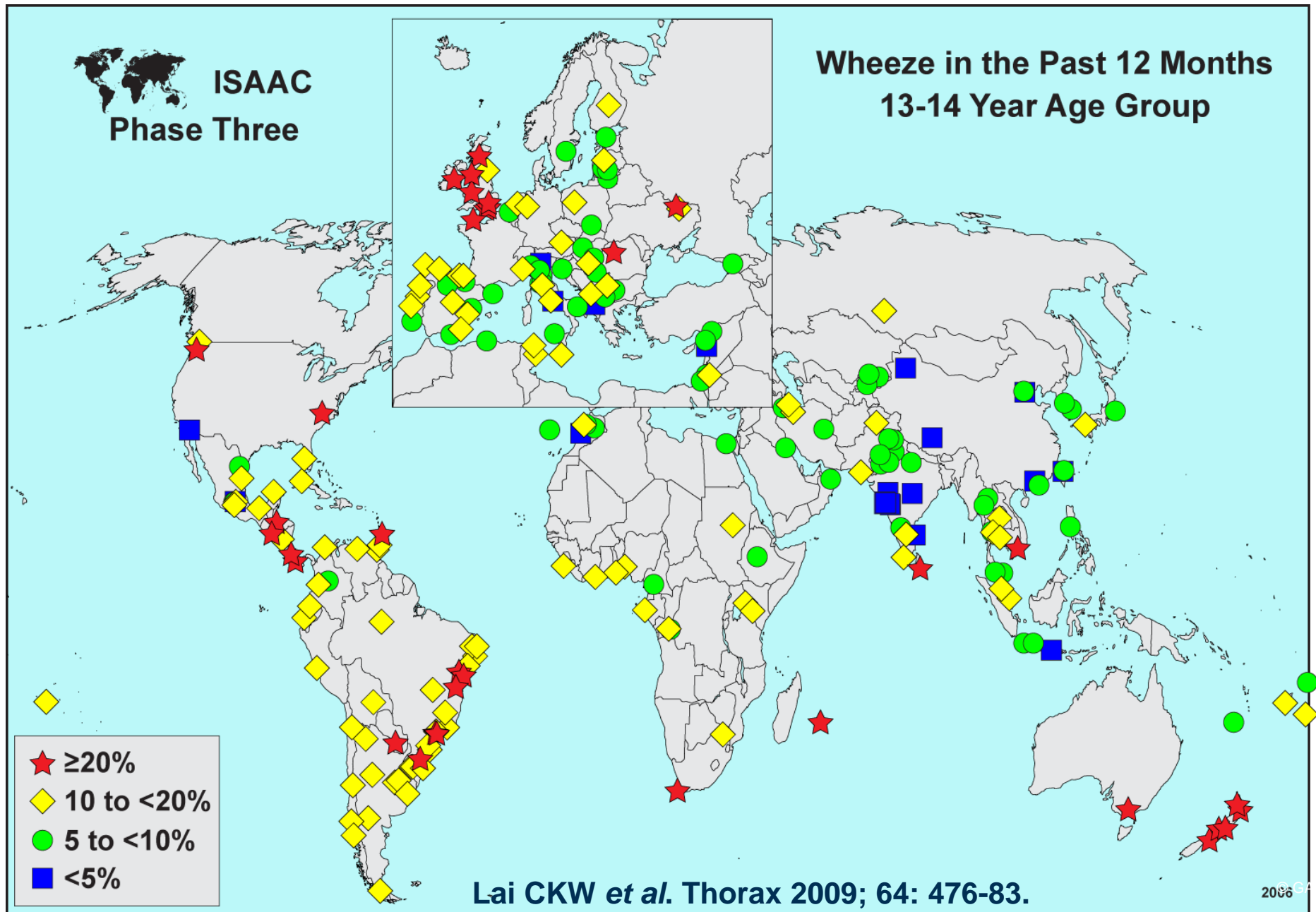
Adults - WHO 70 countries 2003

Children – ISAAC 97 countries 2002-3

Methods: ISAAC Phases I and III

- **Multicentre cross-sectional studies of children in randomly sampled schools**
- **13-14 year olds and optional 6-7 year olds**
- **3000 per age group per centre**
- **Standardised validated simple written questionnaires (optional video asthma questionnaire in 13-14 year olds)**

Asthma symptom prevalence 2002-3 233 centres in 97 countries

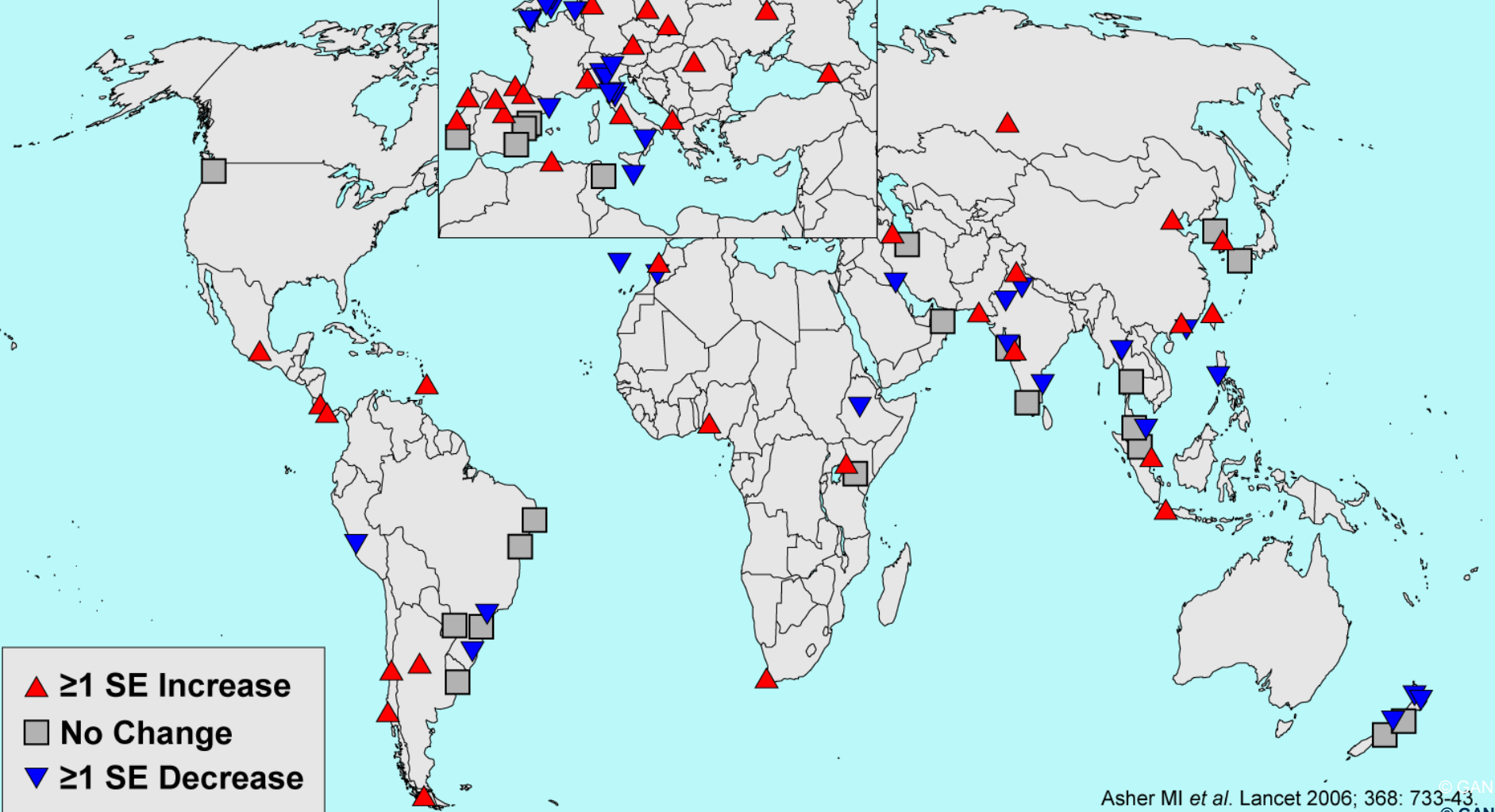
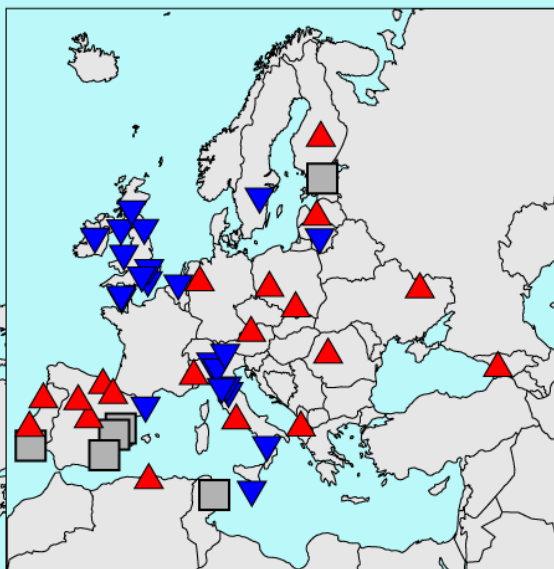


Asthma time trends 1996-2003 106 centres in 56 countries



ISAAC Phase
Three Time
Trends

Change in Symptoms of Asthma
13-14 Year Age Group



- ▲ ≥ 1 SE Increase
- No Change
- ▼ ≥ 1 SE Decrease

ISAAC found that:

- **asthma occurred everywhere in the world**
- **was more common than was thought**
- **there were large variations**
- **asthma overall was increasing**
- **increases were more common in LMICs**
- **asthma was more commonly severe in LMICs**
- **association with atopy was weak in LMICs**

Environmental exposures associated with asthma symptoms

POSITIVE

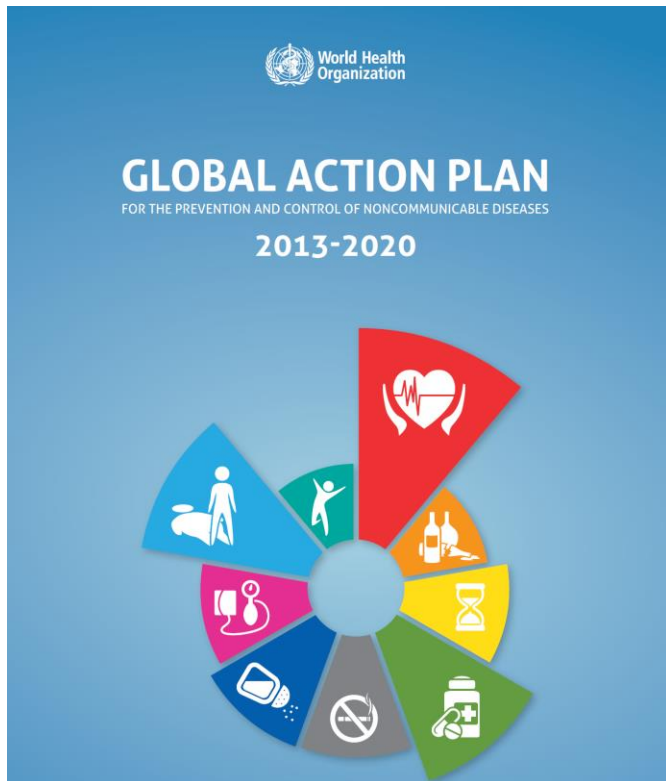
- tobacco smoke
- open fire cooking
- farm animals
- high intensity truck traffic
- dampness in homes
- burger/fast food intake
- obesity
- paracetamol/antibiotic use
- migration to higher prevalence country
- greater family size (severe asthma)

NEGATIVE

- breast feeding in LMICs
- fresh fruit and vegetables

**We do not adequately understand
the causes of asthma.**

WHO NCD Action Plan risk factors insufficient



**Tobacco control alone will
not adequately solve
asthma**

**Reduction in obesity and
increased physical activity
will not do much**

More research needed

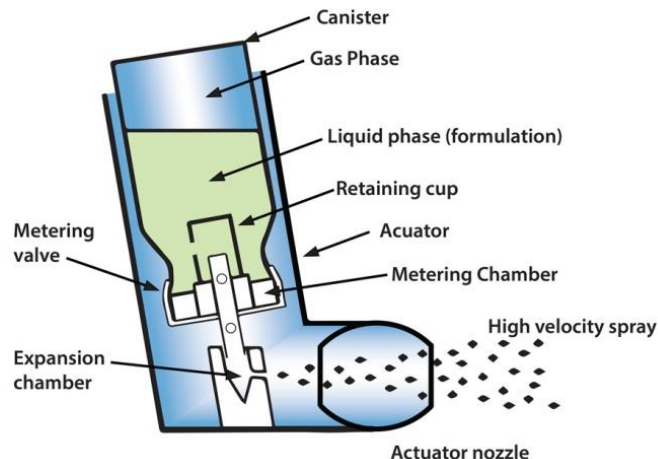
Asthma management needs to reach all people with asthma



- **Reduce underdiagnosis of asthma**
- **Asthma education**
- **Apply standard case management**

Asthma medicines are not reaching people who need them

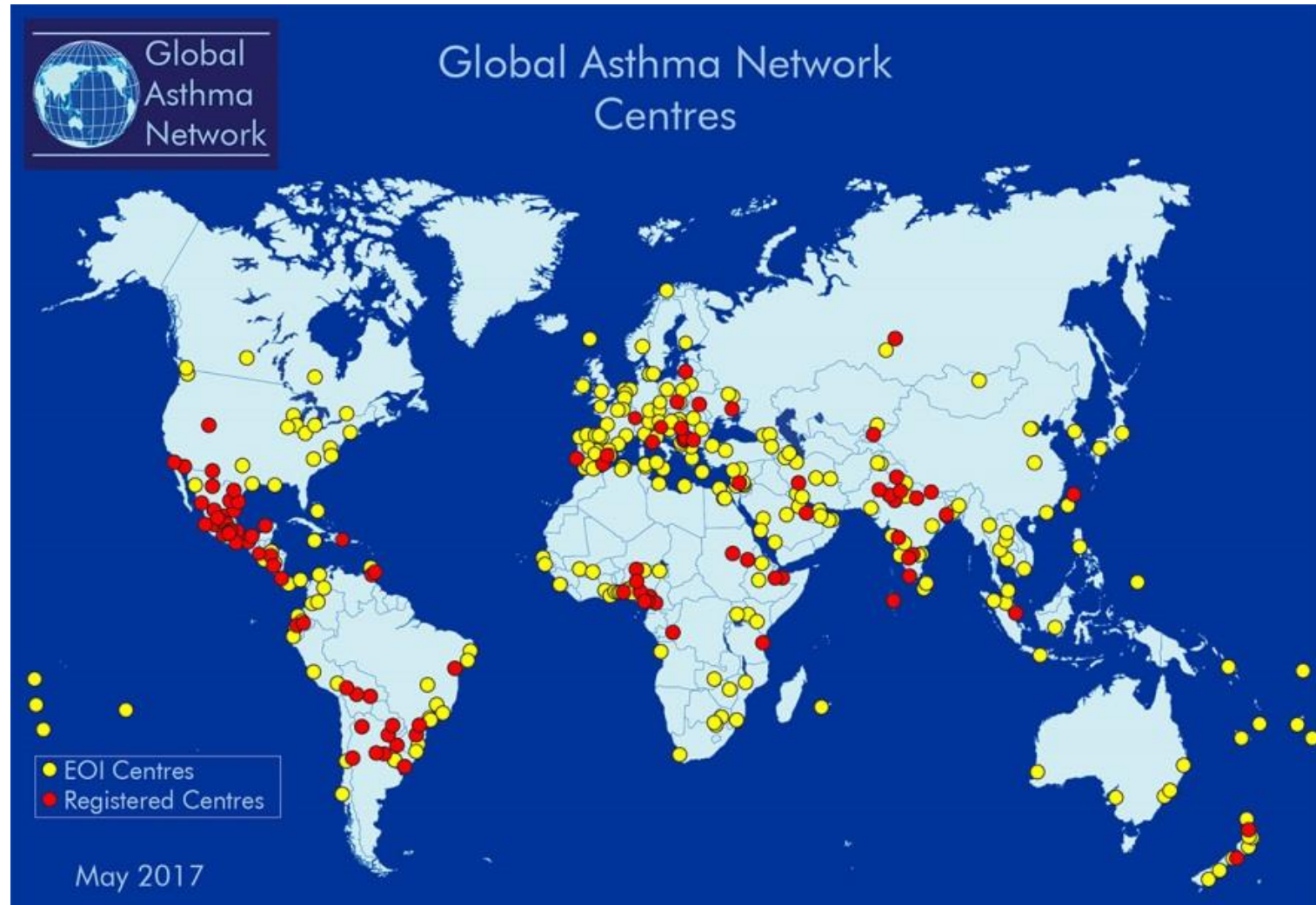
WHO and Governments need to take action to ensure essential asthma medicines (inhalers) are:



- **quality-assured**
- **available to all**
- **affordable for all**
- **these measures are monitored**

Global Asthma Network (GAN)

351 centres in 134 countries (66% LMICs)
48% ISAAC centres - time trends



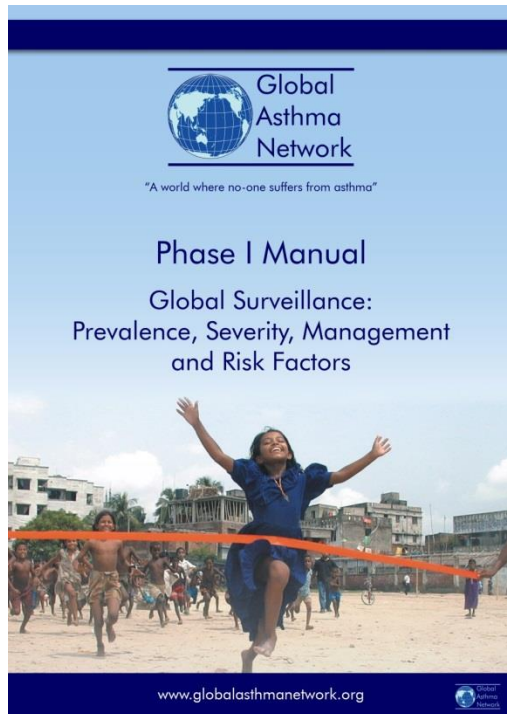
Principles of ISAAC being followed in GAN

-
- **Simple standardised methodologies**
 - **Protocol-based**
 - **‘Low cost’ & able to be followed in LMICs**
 - **Each centre owns their own data**
 - **Central methodology & data checks**
 - **Global data centre(s) do analyses**
 - **Collaborative**
 - **All investigators are authors on papers**



Global Asthma Network Phase I Surveillance

Children 6-7 yr, 13-14 yr & adults*



- Prevalence
- Severity
- Management*
- Risk factors

*new – not in ISAAC



Activities of Global Asthma Network

- **Surveillance of asthma in children and adults - prevalence, severity, management, risk factors**
- **Research**
- **Access to quality-assured essential asthma medicines**
- **Capacity building in low and middle income countries (LMICs)**
- **Advocacy**



Asthma is a hugely neglected public health problem in the world which could be solved

- **Political commitment and action are required**
- **Asthma medicines need to be affordable**
- **Raise awareness of asthma**
- **More data and monitoring is needed**