

# Academic response to Addressing the challenge of nutritional security

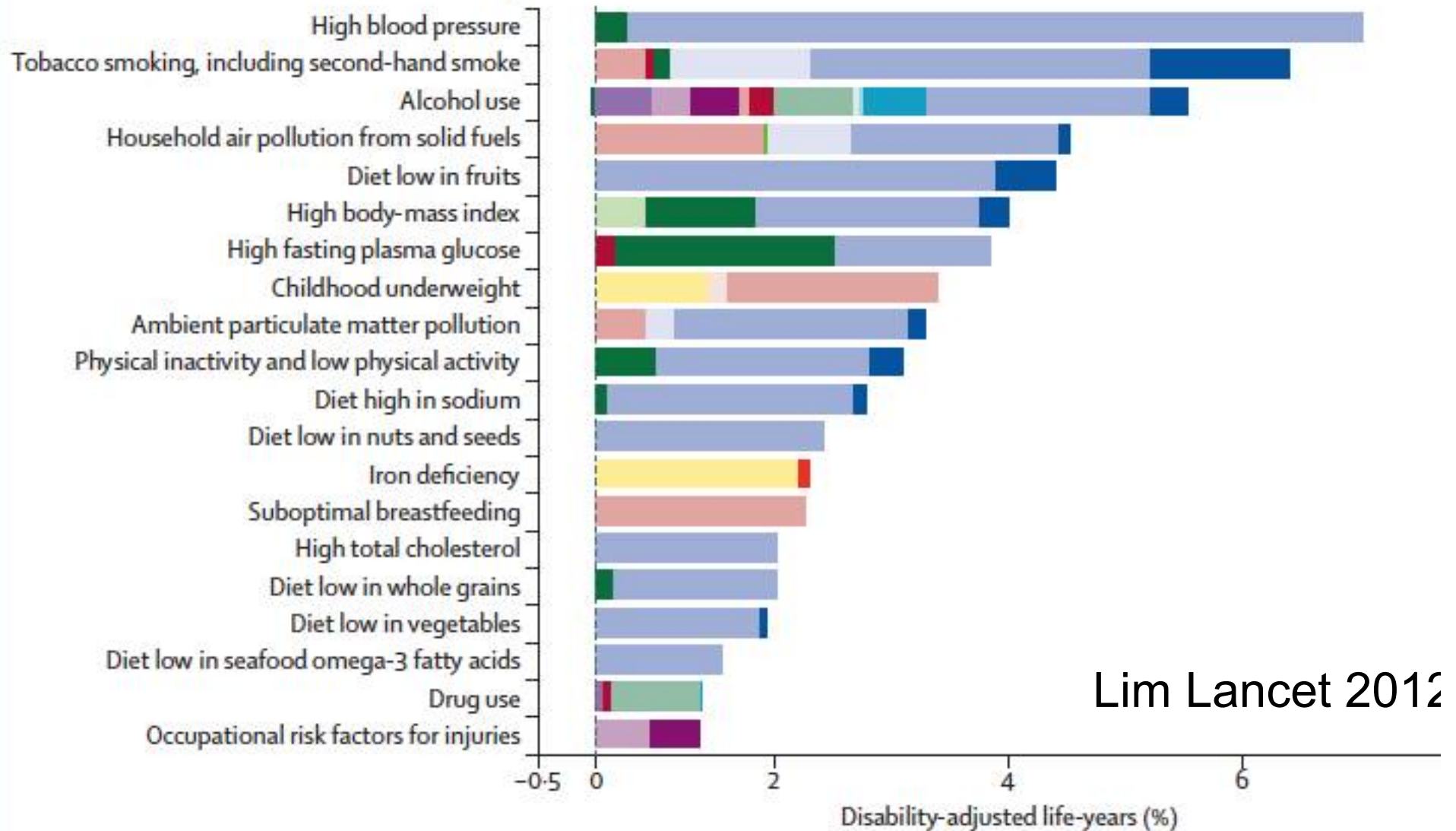
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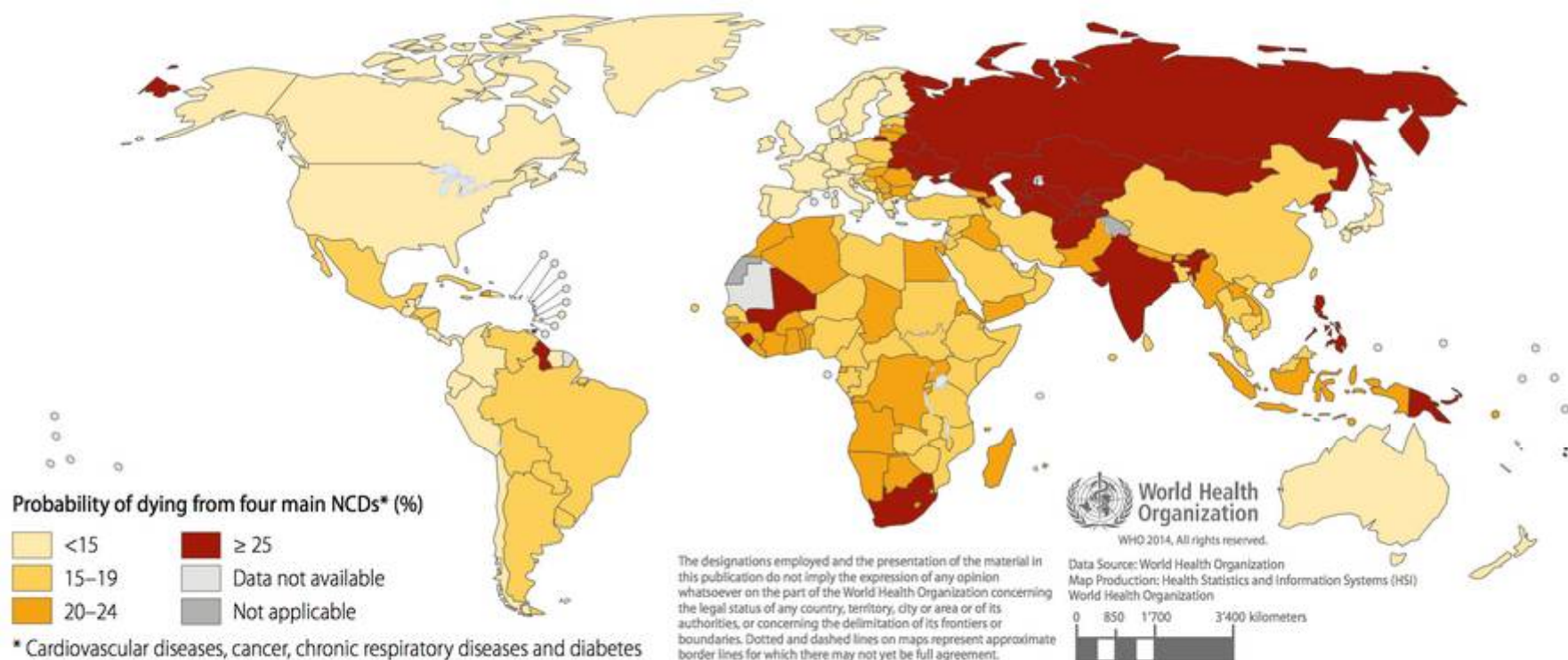
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# Global burden of disease

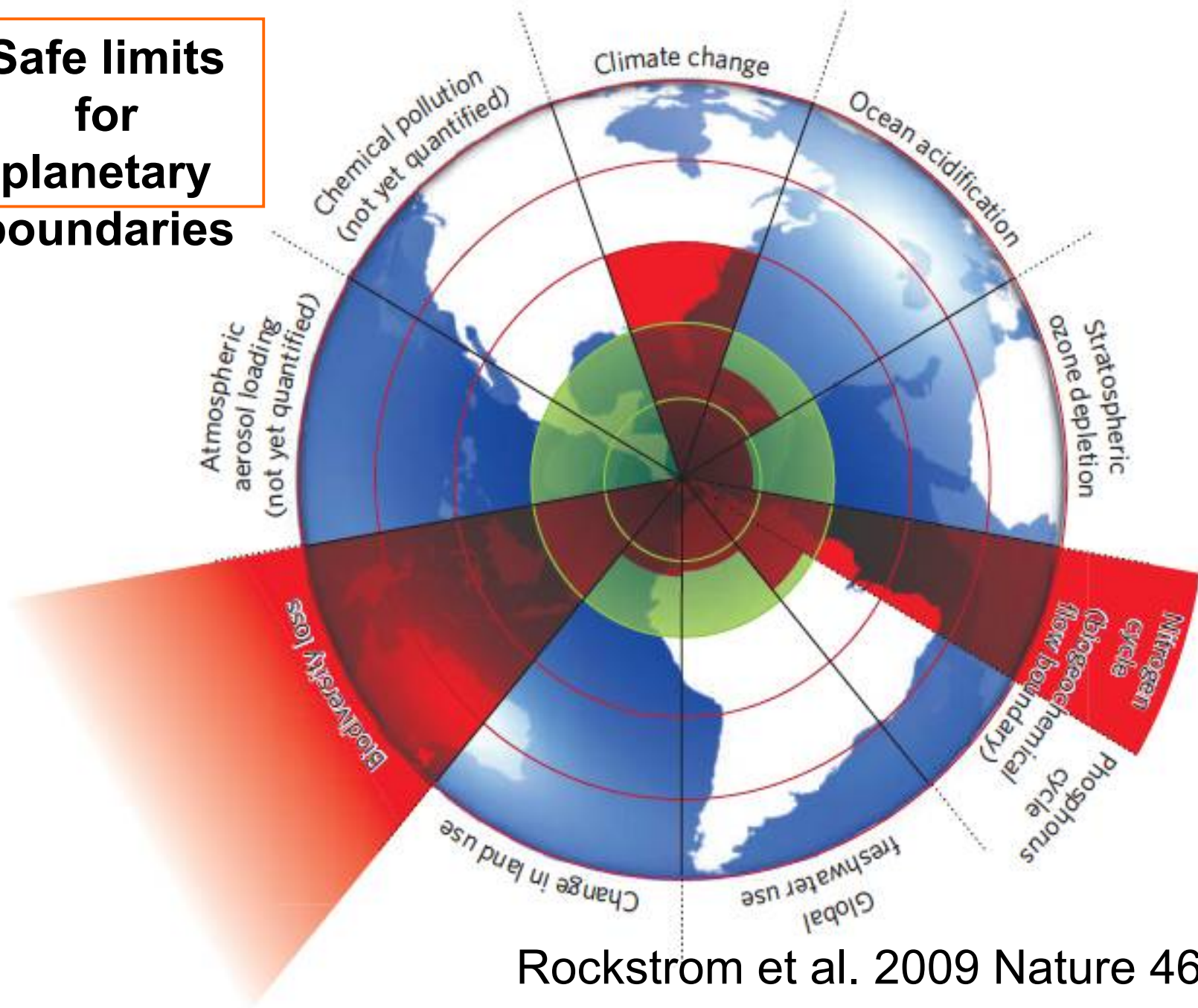


Lim Lancet 2012

**Fig. 1.5a** Probability of dying from the four main noncommunicable diseases between the ages of 30 and 70 years, comparable estimates, 2012



**Safe limits  
for  
planetary  
boundaries**



Rockstrom et al. 2009 Nature 461(24)

# Sustainable food systems and nutrition security

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## Contains per unit

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- Climate change.....✓
  - Water availability .....✓
  - Biodiversity.....✓
  - Energy and fossil fuels.....✓
  - Population growth.....✓
  - Waste management.....✓
  - Land use.....✓
  - Erosion.....✓
  - Employment.....✓
  - Public health.....✓
-





... will not be met if food and nutrition issues remain unaddressed

- 70 of the 169 targets are related to food
  - Integrate environmental, social and health issues
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## Challenges for academic training

- Multi-disciplinary approach
  - Evidence-based action
  - International collaboration
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# Multi-disciplinary approach

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## Multidisciplinary thinking

Nutrition specific interventions

- Target nutrition

Nutrition-sensitive interventions

- Agriculture
  - Development / safety net programs
  - Education / gender ..
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## Nutrition

- Recent discipline
  - Central: touches on many other disciplines
  - Specific skills & competencies (e.g. leadership) are needed
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# Evidence-based action

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- A substantial investment and effort is devoted to nutrition research
  - National government and donors require high quality evidence to prioritise nutrition interventions
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*Are we building the right capacity  
to address nutrition challenges  
effectively in the South ?*

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# Sustainable nutrition research in Africa for the years to come



# SUNRAY

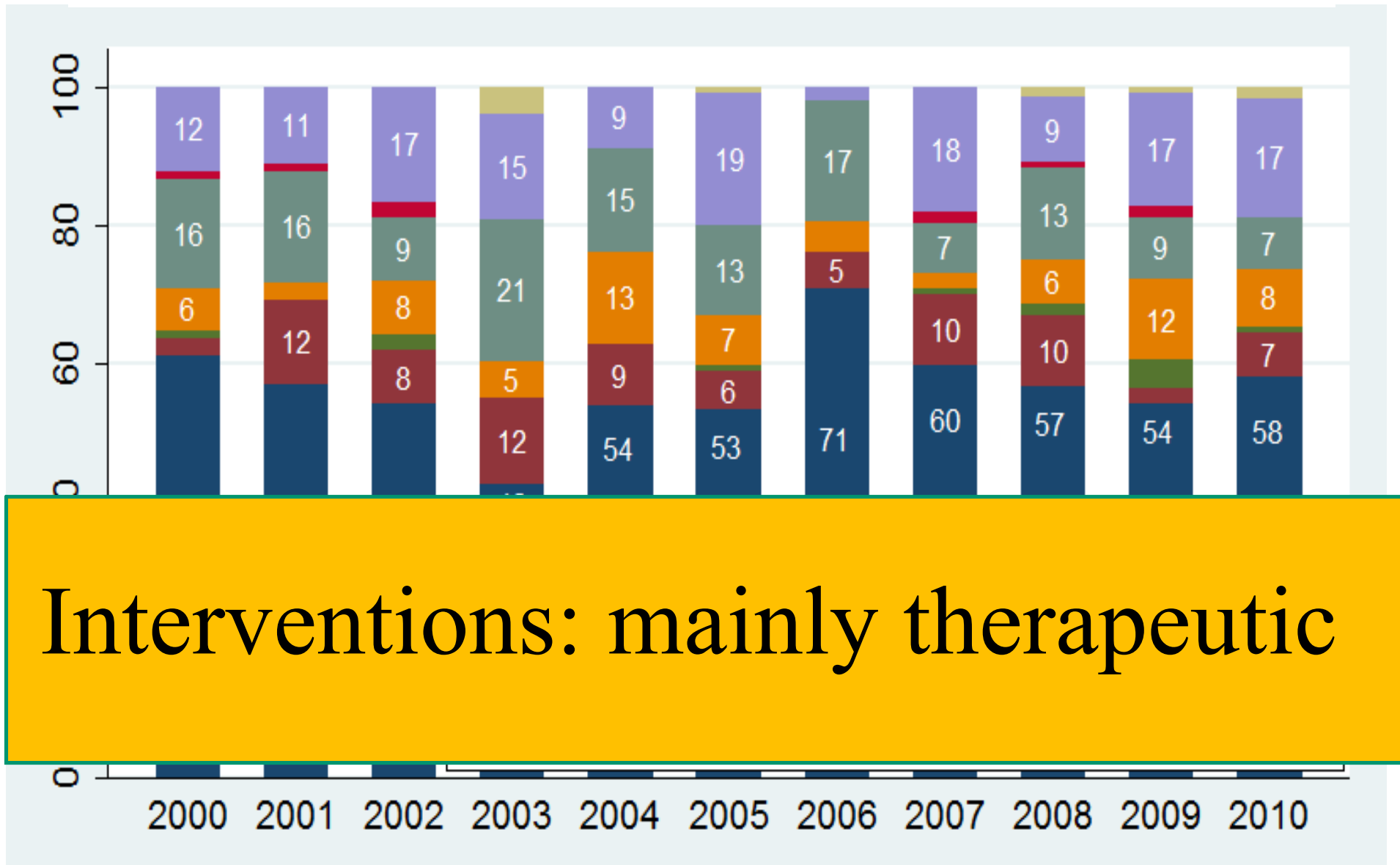
Sustainable Nutrition Research for Africa in the Years to come



[www.sunrayafrica.co.za](http://www.sunrayafrica.co.za)



# What type of nutrition research is done?



# Who publishes on Breastfeeding in Africa?

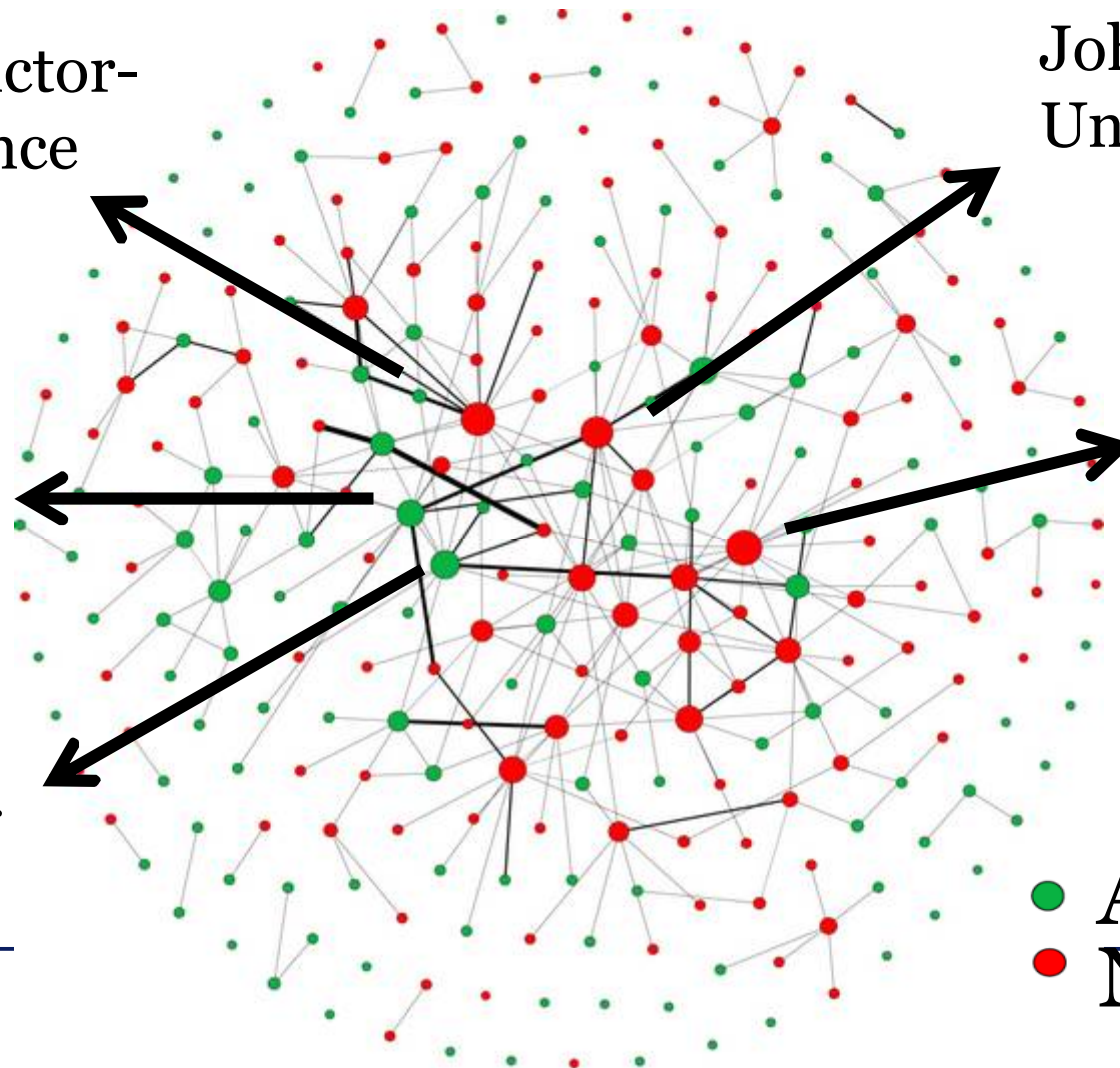
University Victor-  
Ségalen, France

Johns Hopkins  
University USA

ZVITAMBO  
Project,  
Zimbabwe

University  
of  
California,  
USA

University of  
Natal, South  
Africa



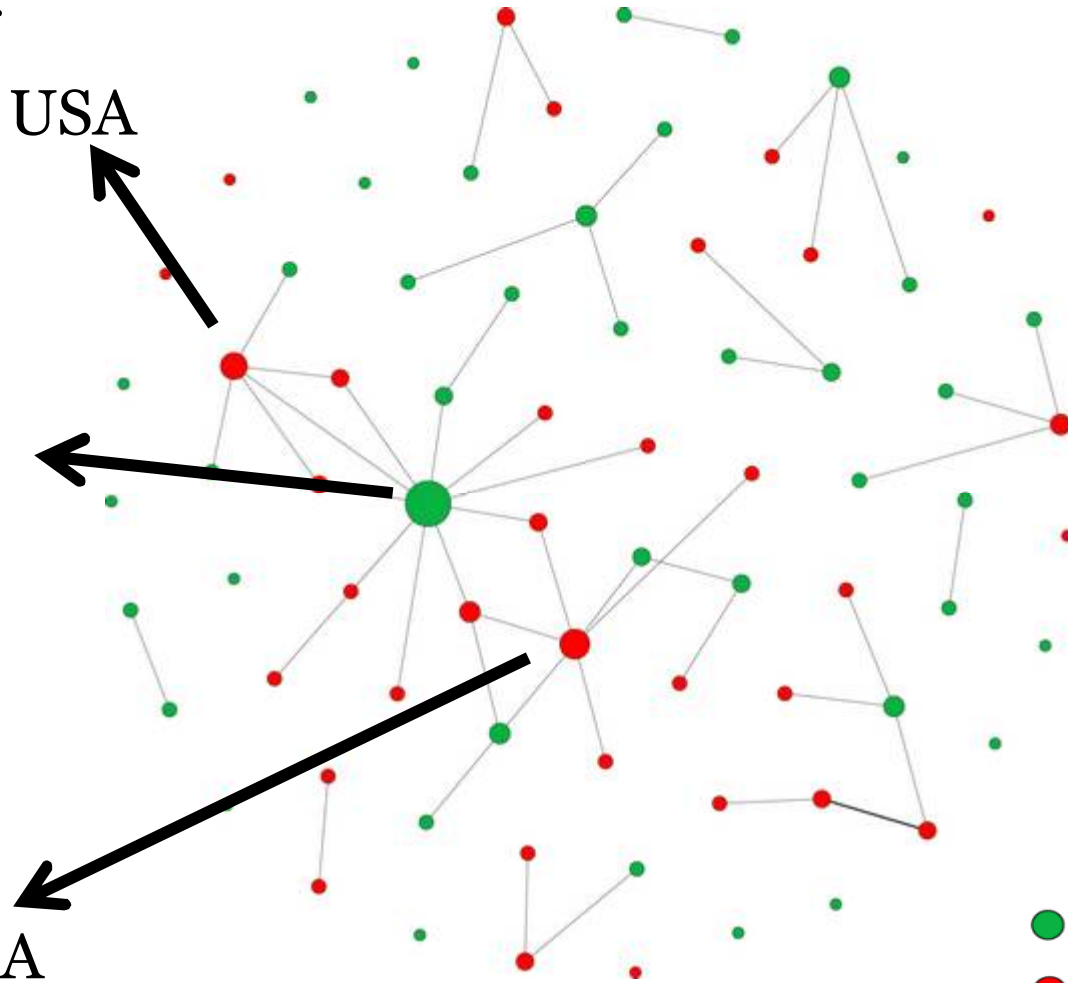
● Africa  
● Non-Africa

# Who publishes on protein energy malnutrition in Africa?

University of  
Washington, USA

University  
of Malawi

CDC, USA



● Africa  
● Non-Africa

# Renewed efforts are needed

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Current research: too little that adds value for effective action

- Great deal of research published
- Poor development of evidence base

- Descriptive

- Substantial amount of duplication

Agenda driven by high income countries

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# Capacity development?

- ▶ Individual level,
  - Sandwich PhD programmes
  - Regional mobility programmes
  - Refresher courses and specific skills (e.g. leadership | mentorship)
- ▶ Organisational/Institutional level,
  - Inventory to identify training options in Africa
  - Sustainable networks



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# International collaboration





Global challenges

Shared concerns & responsibilities

Require global perspective and response



**Genuine and equitable  
academic partnerships are  
needed**

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## How can we add value to training initiatives in the South?

- Various MSc programs in Nutrition, PhD programs are initiated
    - Complementarity of efforts
    - Scholarships and funding
    - Views and perceptions of our partners in the South
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# Making an international MSc program in Belgium fit or purpose

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# MSc Human Nutrition and Rural Development

- 1970: 1- year training programme with a Public Health Nutrition focus
  - 2006: 2-year MSc English
  - 3 main subjects 120 ECTS
    - Human nutrition
    - Rural economics and management
    - Tropical agriculture (animal + plant)
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## Students

± 35 per year, 11 with scholarship from  
VLIR

>90% LMIC

25% will proceed for PhD

Various backgrounds

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# Vision

Tackling through a multidisciplinary approach, the whole range of nutrition (security) problems in the developing world and this with special attention for the ethical, environment, socio-economic and health aspects.

‘From farm to fork’

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# Multi-disciplinary approach

- Enrolment
  - Integration in courses and exercises
  - International training centre
    - Integrate 8 MSc courses
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# Evidence based decisions

- Deal with increased number of publications and research output
  - Evaluate research papers critically (journal club)
  - Evidence based policy recommendations
  - Good research practices
  - Thesis work

# Leadership

- Group work & assignments
  - Participatory analysis and evaluation
  - Peer evaluation
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EUROPEAN  
NUTRITION  
LEADERSHIP  
PLATFORM



AFRICAN NUTRITION LEADERSHIP PROGRAMME



## International collaboration

- What do partners want from us?
  - International dimension
  - Teaching methods
- Hubs and joint programming
- Formats
  - Blended learning & e-courses
  - Modular system



International Training Centre



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[www.bioengineering.ugent.be/international-training-and-education](http://www.bioengineering.ugent.be/international-training-and-education)

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