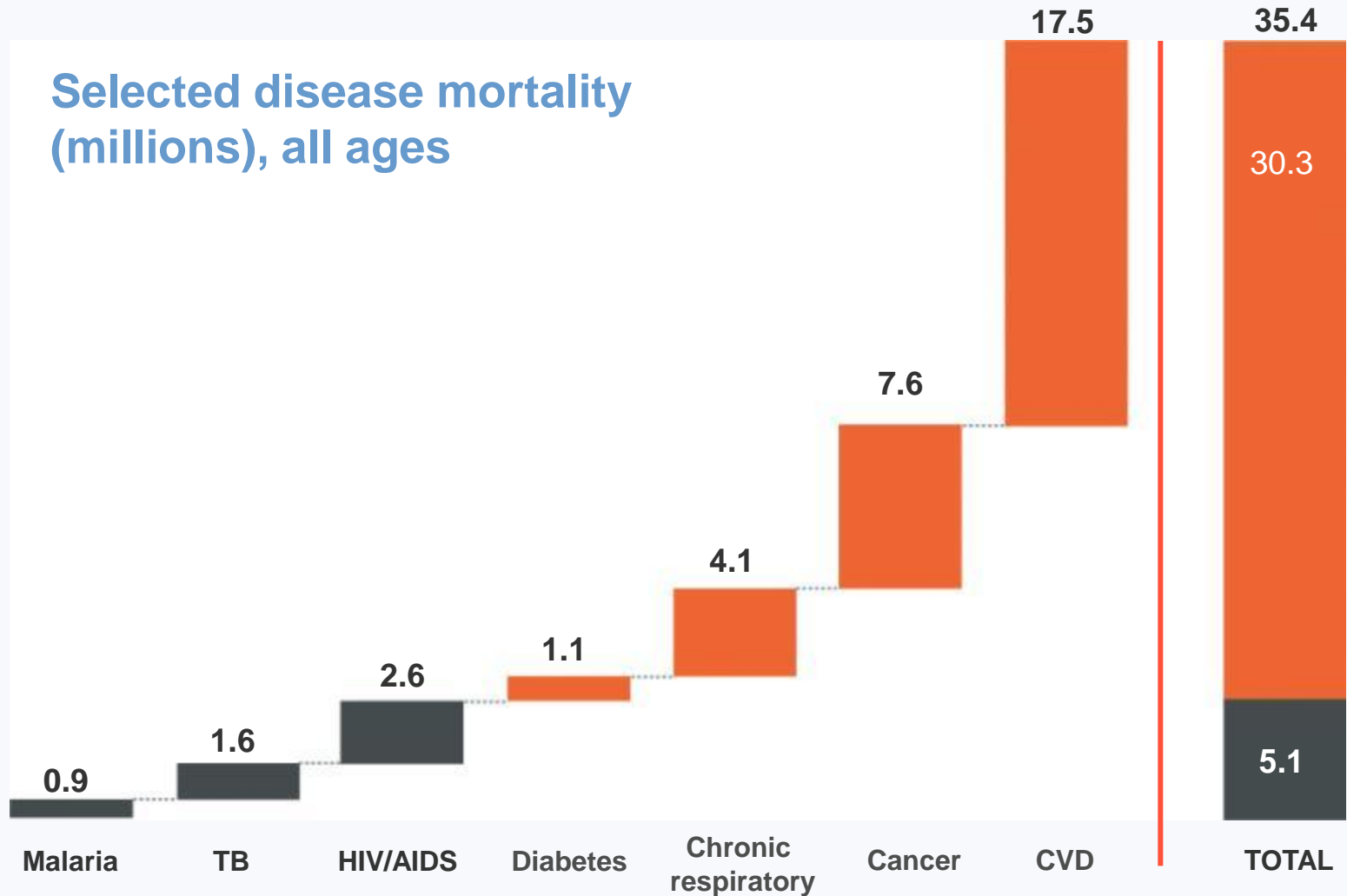


# Preventing chronic disease by design

Katy Cooper,  
C3 Collaborating for Health

# Global deaths by cause (2005)

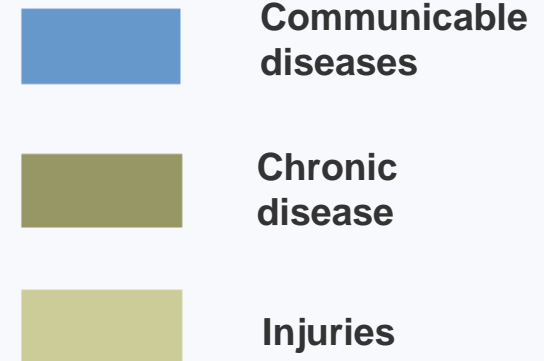
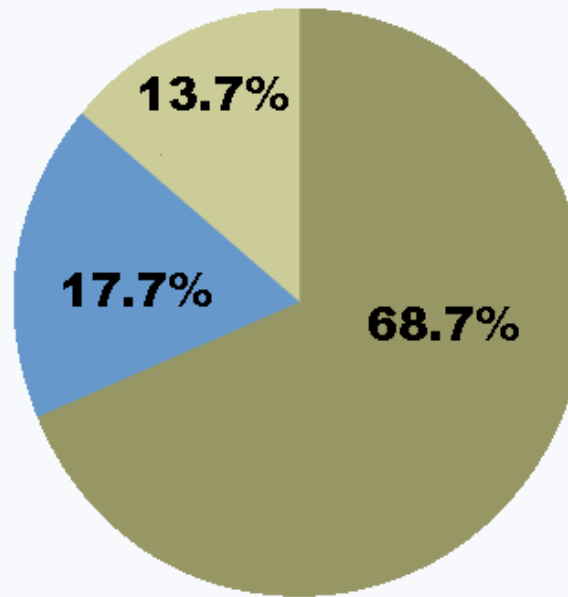
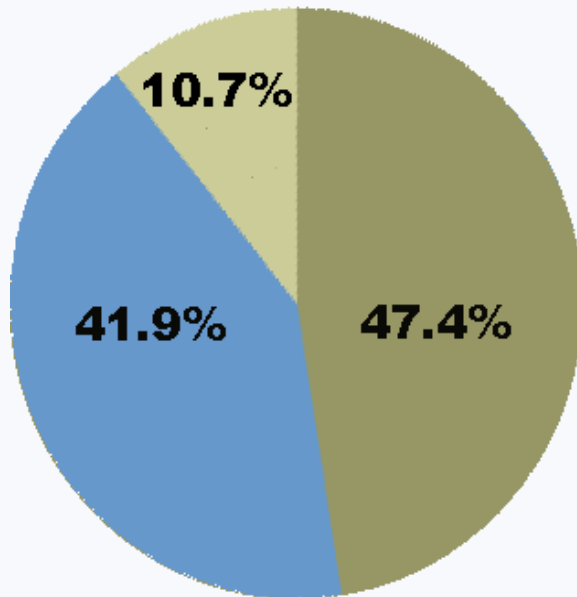
## Selected disease mortality (millions), all ages



# Global burden of disease

1990

2020



80% of the deaths from NCDs occur in developing countries

Source: Harvard School of Public Health

# Why it matters

- These are not ‘diseases of affluence’ – they often fall hardest on those least able to afford it.
- Many of the cases of NCD are premature, striking people of working age.
  - There are 9 million deaths a year from NCDs in people aged under 60 – 9/10 in developing countries
  - Early death and disability has serious economic repercussions for families and national economies
- Funding does not reflect the severity of the crisis.

## We can prevent much of the burden...

- Up to:
  - 80% of cases of heart disease and stroke
  - 40% of cases of some cancers
  - the majority of cases of type 2 diabetes
- can be prevented or delayed.

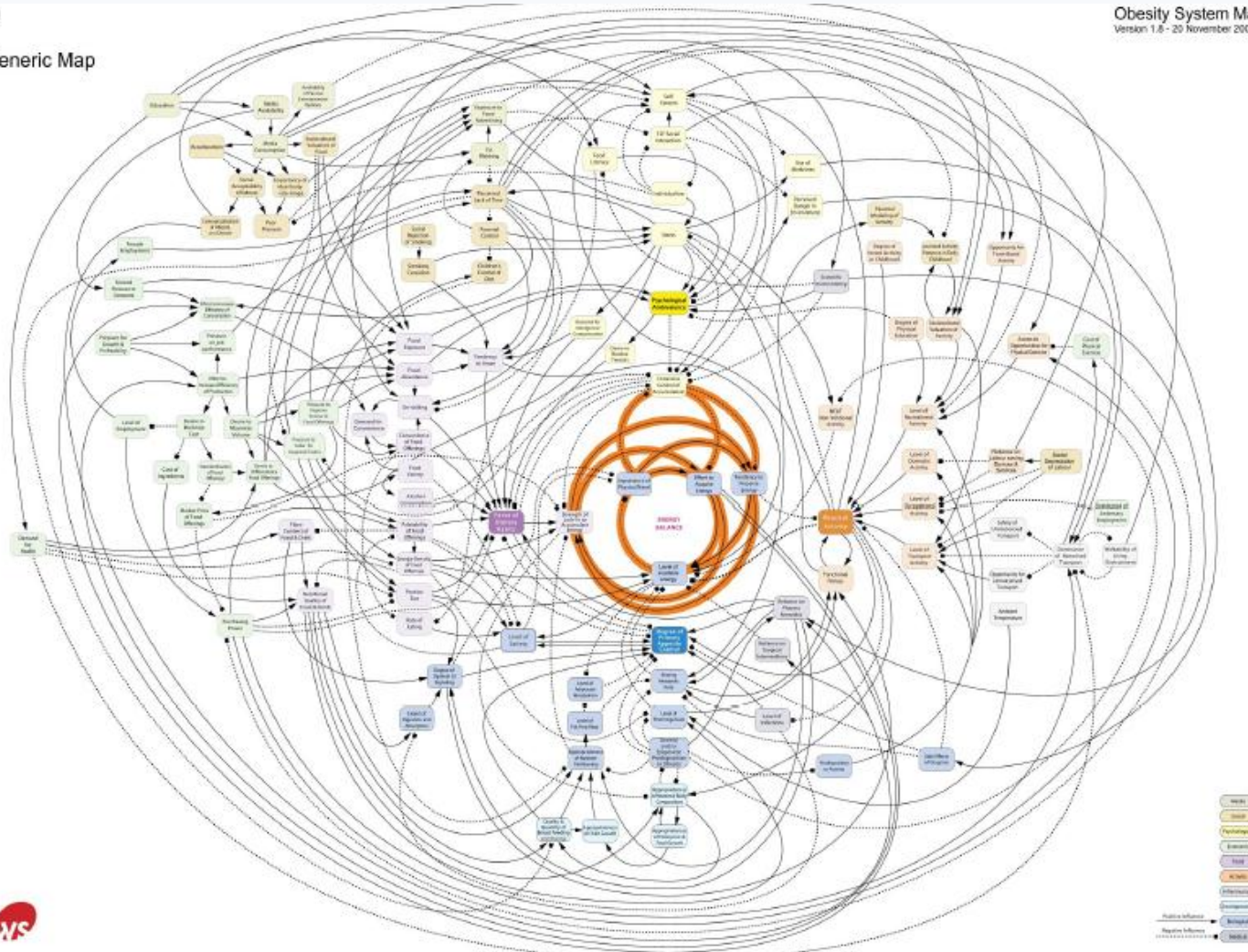
...so how can we prioritise health, not sickness?

# Is it complicated to fix?

0

Generic Map

Obesity System Map  
Version 1.6 - 20 November 2006



## Or is it simple?

- **3** risk factors cause **four** chronic diseases (cardiovascular disease, type 2 diabetes, many cancers and chronic lung disease) that cause **over 50%** of deaths worldwide.
- The risk factors are:

Tobacco use



Lack of physical activity



Unhealthy diet (including harmful use of alcohol)



It's not rocket science: we know what works...

**For example: five servings of fruit and vegetables each day can reduce the risk of:**

- Cardiovascular disease by 28%
- Type 2 diabetes by 24%
- Some gastrointestinal cancers by 20%



## Physical activity reduces the risk of:

- **breast cancer** by approximately 20–40% among those who do vigorous physical activity for 30–60 minutes on 5 days each week;
- **colon cancer**: the most active people are at 30% lower risk than the least fit;
- **stroke** by 25–30% among active individuals;
- **coronary heart disease**: physically inactive people can have as much as twice the risk;
- significantly reduces risk of **diabetes**;
- plus benefits for **musculoskeletal** and **mental health**.



...so why don't we do it?

# Negative consequences are distant

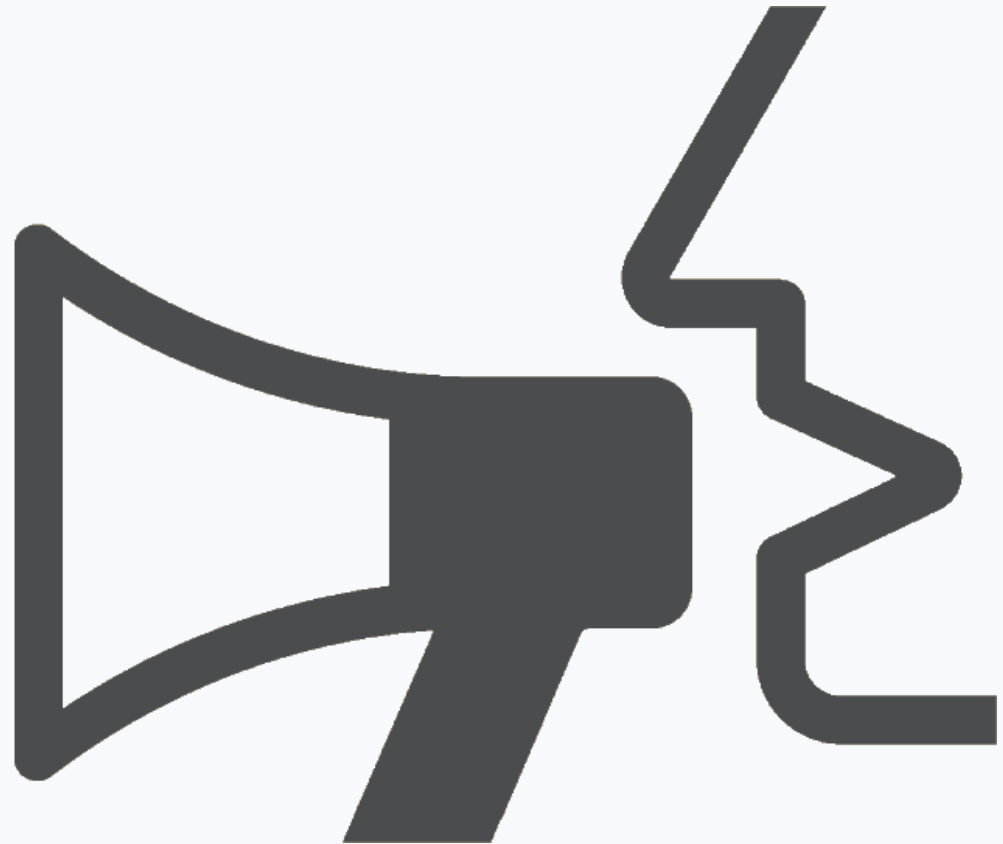


# There is confusion and mixed messages

**Low fat**  
**Balance**  
**Low carb**  
**High protein**  
**Physical activity**  
**Cut fat**

**Diet**

**Moderation**  
**Light**  
**Balance**  
**Fat is fine**  
**Sugar free**

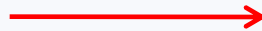


# Health 'nanny' messages are problematic



# Make it easier to be healthy!

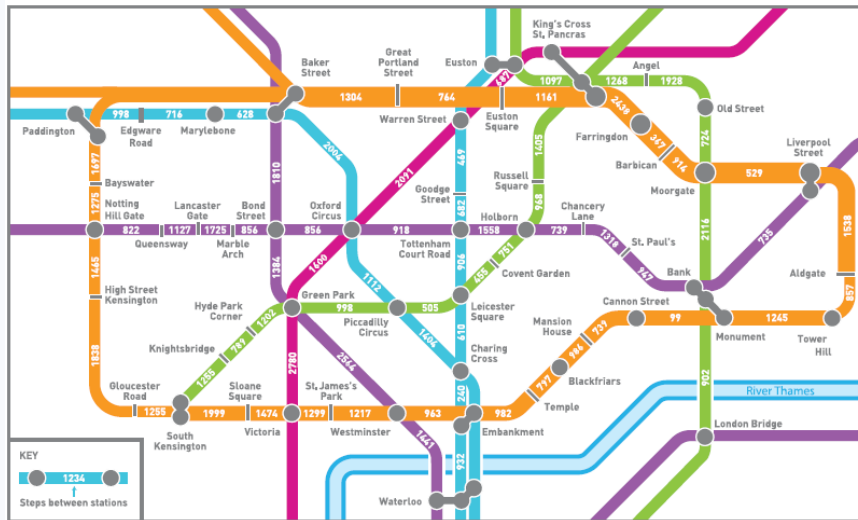
- Create an environment that is designed to be attractive, safe and sustainable, that fosters physical activity and gives access to healthy food.



# Making it easy: physical activity

- Walking tools

Step by step Tube map



A to B Circular

Walk in London

from w1w 8fz

to charing cross station

Distance	Time	Calories	CO <sub>2</sub> Saved
1.1 miles	17 mins (fast)	117 Cal (fast)	0.11 kg tube
1.8 km	23 mins (med)	104 Cal (med)	0.30 kg car
2650 steps	34 mins (slow)	100 Cal (slow)	0.19 kg bus

1. Start out along LITTLE PORTLAND STREET, heading east.
2. After 55 metres turn right onto GREAT PORTLAND STREET, heading south.  
You'll pass BREAKFAST GROUP BAR OR PUB, pass CARLUCCIOS COFFEE SHOP, pass MASH RESTAURANT and then pass LEES B&O BAR OR PUB.
3. After 150 metres turn left onto OXFORD STREET, heading east.  
You'll soon pass HSBC BANK, pass BORDERS BOOK STORE, pass ETAM and then MARKS & SPENCER.
4. After 250 metres turn right onto BERWICK STREET, heading south.  
You'll pass COFFEE REPUBLIC COFFEE SHOP, pass RAJ TANDOORI RESTAURANT, pass CAFE ROMA COFFEE SHOP and then pass LE FIGALLE RESTAURANT.
5. After 1/2 kilometre continue straight onto WALKERS COURT at SOMERFIELD GROCERY STORE, heading south.
6. After 51 metres continue straight onto RUPERT STREET, heading south.

# Making it easy: physical activity

- Urban cycling



A screenshot of the Transport for London website's 'Cycling routes &amp; maps' page. The page features a search bar at the top right, a navigation menu with options like 'Cycling home', 'Barclays Cycle Hire', 'Routes &amp; maps', 'Get cycling', 'Events', and 'Photos &amp; links', and a 'Cycle Journey Planner' section. The planner includes fields for 'From' and 'To' locations, a 'Cycling options' section with radio buttons for 'Easy' (16km/hr), 'Fast' (20km/hr), and 'Leisure' (12km/hr), and a 'Search' button. On the right side, there is a map of London with various cycling routes highlighted in different colors (green, orange, red). The map includes labels for areas like Waltham Forest, Redbridge, Hackney, Newham, Tower Hamlets, and London City Airport. A scale bar at the bottom left of the map indicates 3 km.

# Making it easy: physical activity

- Prompts



# Making it easy: physical activity indoors

- Encouraging stair use



CDC Headquarters, Atlanta, Georgia

## Seeing the difference: Agita São Paulo

- Community-wide campaign in Brazil to encourage 30 min of physical activity daily, with a 'half-hour man' mascot. It focuses on active living, not 'exercise' per se.
- Impressive results – both in terms of exercise levels and health outcomes.
- The World Bank estimates Agita represents a cost saving to the health system of US\$310 million each year.



## C3 Collaborating for Health

C3 Collaborating for Health is a policy and advocacy organisation: [www.c3health.org](http://www.c3health.org)

**C3 believes that only by working together can we make it easier to be healthy.**

**C3 works with many different people and organisations to promote 3 behaviour changes: stopping smoking, eating a better diet and increasing physical activity.**

# Who do we work with?

- **C3 works globally.**
- **We work with:**
  - health professionals, government, urban planners, schools, consumer organisations, academics, nutritionists, NGOs, food companies, employers...



## Example 1: Working with business

- **C3 works with businesses to help focus their core activities in more healthy ways**
  - Coordinated and ran a series of successful consultations on PepsiCo UK's **Health Report**
  - Convening discussions with a company as part of its CSR , which we hope will lead to an initiative to make **local communities healthier**
  - With a pharmaceutical company, convened a group of stakeholders to discuss **future healthcare 'scenarios'** for 2030



# Example 2: Workplace health

- C3 helps to develop fresh approaches to promoting health in the workplace
  - Contributed to two major reports by Bupa (major insurer) on workplace health
  - Highlighted the importance of workplace health in hospitals
  - Presents to and advises companies on the benefits of workplace health both to their employees and to the company's bottom line.

## HEALTHY CHOICES IN HOSPITAL VENDING MACHINES AND CANTEENS?



ARTICLE BY CHRISTINE HANCOCK, KATY COOPER AND KAREN SIEGEL

### Abstract

Chronic diseases such as diabetes, heart disease, cancer and chronic lung disease are responsible for the majority of deaths and disabilities in developed and in most developing countries. Confronting this global epidemic requires society-wide interventions - including in workplaces and health-care settings. As part of this effort, hospitals could be taking a lead in providing appropriate food and beverages to visitors and hospital employees, as well as patients. This article is a call to action to create healthier food environments in hospitals.

Hospitals are bearing the brunt of increasing chronic non-communicable diseases such as diabetes, heart disease, cancer and chronic lung disease - diseases that are responsible for over 60% of deaths and disabilities in developed and in most developing countries. Many of these deaths could be delayed or entirely prevented by making time for doctors, lack of physical activity, poor diet and tobacco use. However, the epidemic of chronic disease is fast increasing, and the consequences for patients, their families and to health systems are overwhelming. Patients and their families - are an important site for interventions promoting healthy choices. The food environments in hospitals. The quality of the food available in hospitals is a vital part of the care of patients; good nutrition can promote speedy recovery, and healthy, freshly prepared options should be available to all patients. However, as hospitals and health care centres are at the forefront of health care, they should be encouraging primary as well as secondary prevention - in other words, taking the lead in

of this article. Offering unhealthy HFSS food in hospitals can serve to exacerbate a lack of awareness of the health implications of poor diet and obesity - but in some hospitals, the urgent need to generate substantial income may lead to the offering of less healthy choices in the canteens, vending machines and shops.

**Key messages:** Hospitals and health care centres are being asked to reach more of the world's health promotion budget. Those who might not be reached - particularly chronically disadvantaged

By 6.5 million diabetics in 2015, 10% of the world's population will be affected by diabetes. In middle-income countries, 10% of the population will be affected by diabetes. In low-income countries, 10% of the population will be affected by diabetes.



## Healthy Work Challenges and Opportunities to 2030



## Example 3: Health professionals

- **C3 works with health professionals to change attitudes to health and health-care in communities.**
  - Working with the International Council of Nurses and nursing associations from six countries to involve nurses in promoting healthy lifestyles in their communities.
  - Began with a pilot workshop in Durban, South Africa, in 2008.
  - C3 manned a Wellness stall at the ICN's biennial congress, and the ICN is prioritising NCDs for the next two years.



## Example 4: International networks

- Regular breakfast seminars in London
  - Using C3's network to bring people together to share ideas and catalyse action – with reports published on C3's website
- Major international meetings
  - New Delhi, India, April 2010: nearly 90 experts from around the world shared ideas on 'what works' in prevention



## Example 5: Using new technologies

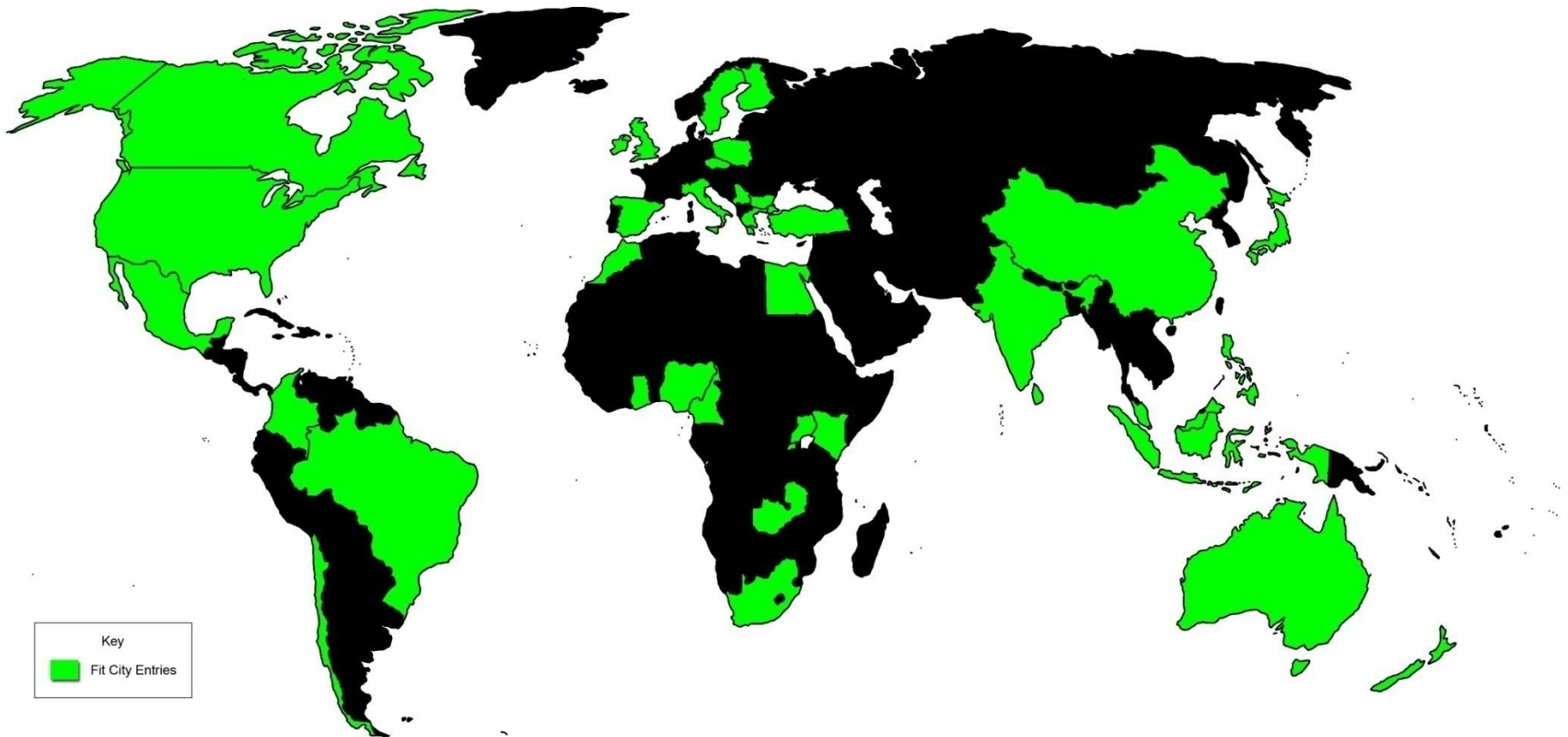
- C3 uses new technologies to get messages out, and bring together its network online to connect and collaborate to create a healthier future.
- **C3 website**, [www.c3health.org](http://www.c3health.org)
  - Regular ‘news alerts’, updates on C3 work and publications, online discussions, and information on major developments in NCDs
- **Twitter feed**: @c3health



# Fit City

- Online, international competition for 18–27 year-olds
- Video, poems, research and photos on what makes a healthy (or unhealthy) city.
- Prize: attend international conference (Sydney, Australia) to present submission





Key  
Fit City Entries



Australia • Bahrain • Brazil • Bulgaria • Cameroon • Canada • Chile • China • Colombia • Czech Republic • Egypt • Finland • Ghana • Greece • Hong Kong • India  
Indonesia • Ireland • Italy • Japan • Kenya • Malaysia • Maldives • Mexico • Morocco • New Zealand • Nigeria • Philippines • Poland • Rwanda • South Africa  
Serbia & Montenegro • Singapore • Spain • Sri Lanka • St. Lucia • Sweden • Turkey • Uganda • United Kingdom • United States • Zambia

# Fit City winners

[www.fit-city.org](http://www.fit-city.org)

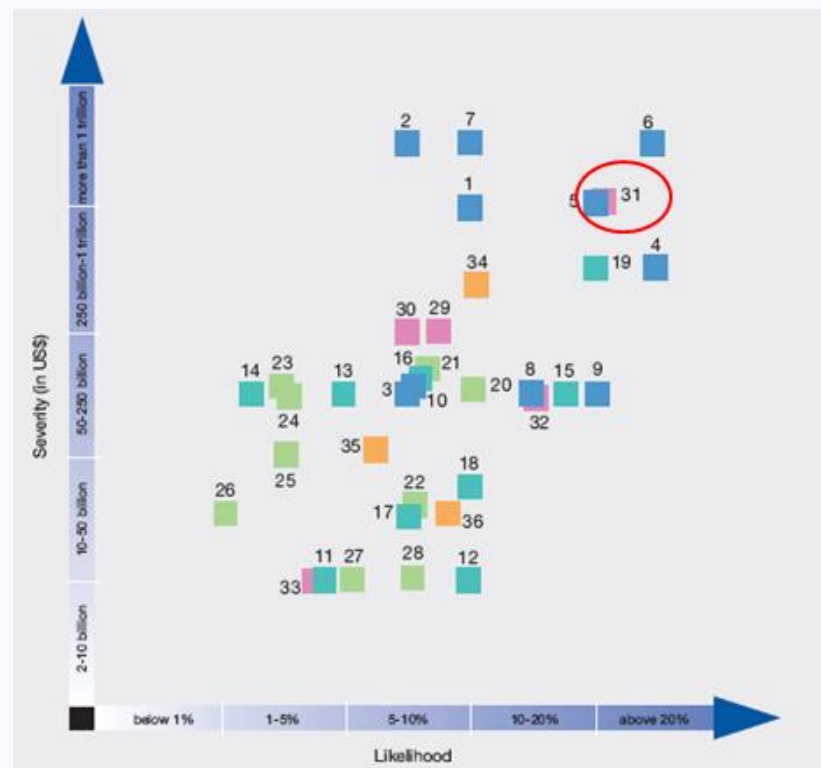
- Car-free day – video (UK)
- A bicycle story – video (US)
- Heartbeat – poem (Japan)
- Hospitalisation of public space – photos (Serbia)
- Community in the Philippines – video (USA)



Preventing chronic disease by design

# 2011: an opportunity

- There is increasing recognition of the scale of the problem, for example:
  - World Economic Forum – one of the most serious global risks in terms of likelihood **and** severity



# UN High-level Meeting

- **UN High-level Meeting on NCDs**
  - September 2011.
  - Only the 2<sup>nd</sup> such meeting on a disease-related topic
  - Heads of government will be attending, but civil society is taking part too



## A key question

- How can the architecture and design sector take advantage of the opportunity presented by the UN High-level Meeting in September?

## More information

C3 Collaborating for Health: [www.c3health.org](http://www.c3health.org)

Twitter feed: [@c3health](https://twitter.com/c3health)

Katy Cooper: [katy.cooper@c3health.org](mailto:katy.cooper@c3health.org)