

ROLE OF BEHAVIOUR IN ADOPTION OF PUBLIC HEALTH INTERVENTIONS: IMPLICATIONS FOR LAND USE CHANGE

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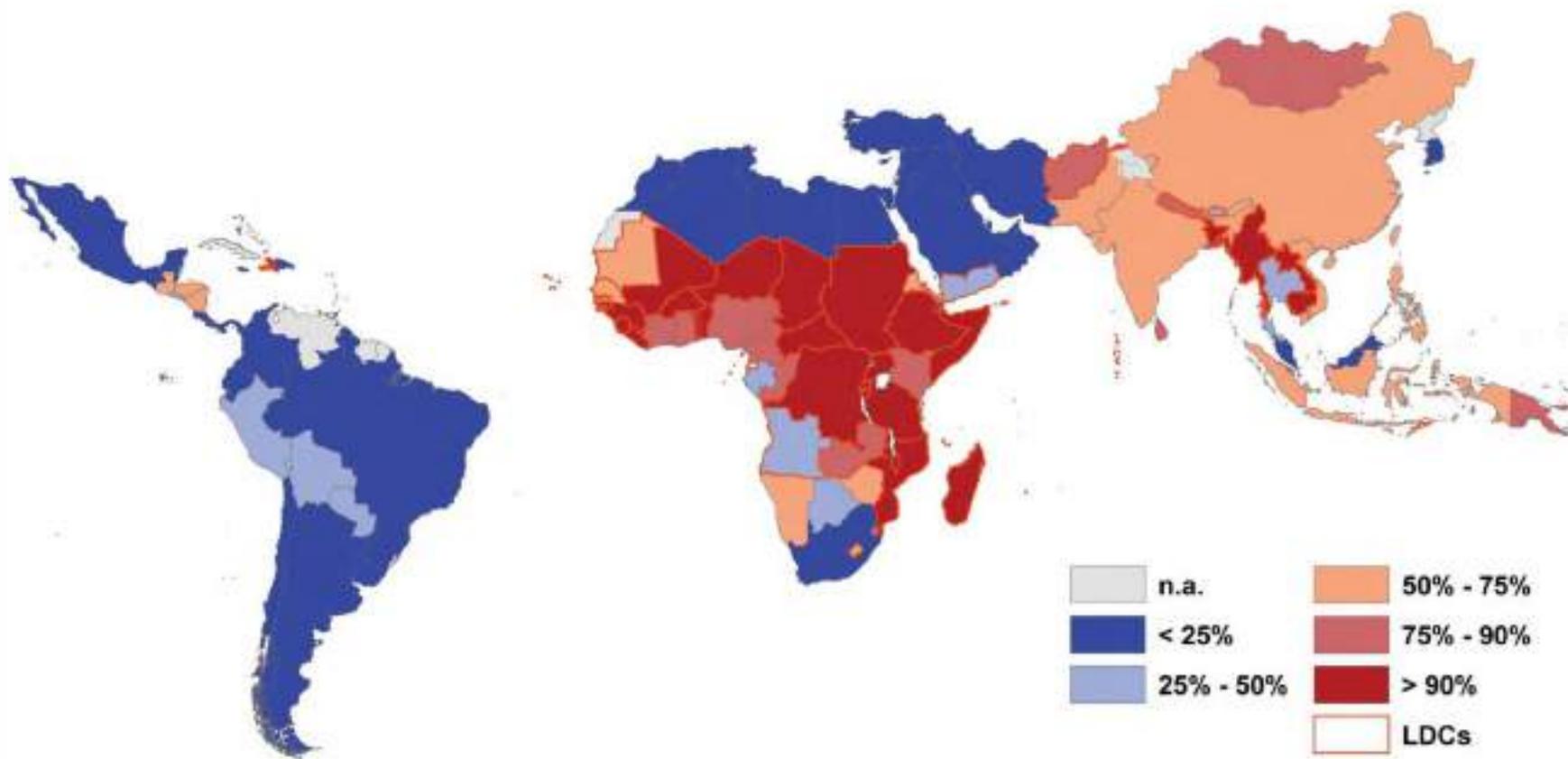
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GLOBAL LANDSCAPES FORUM

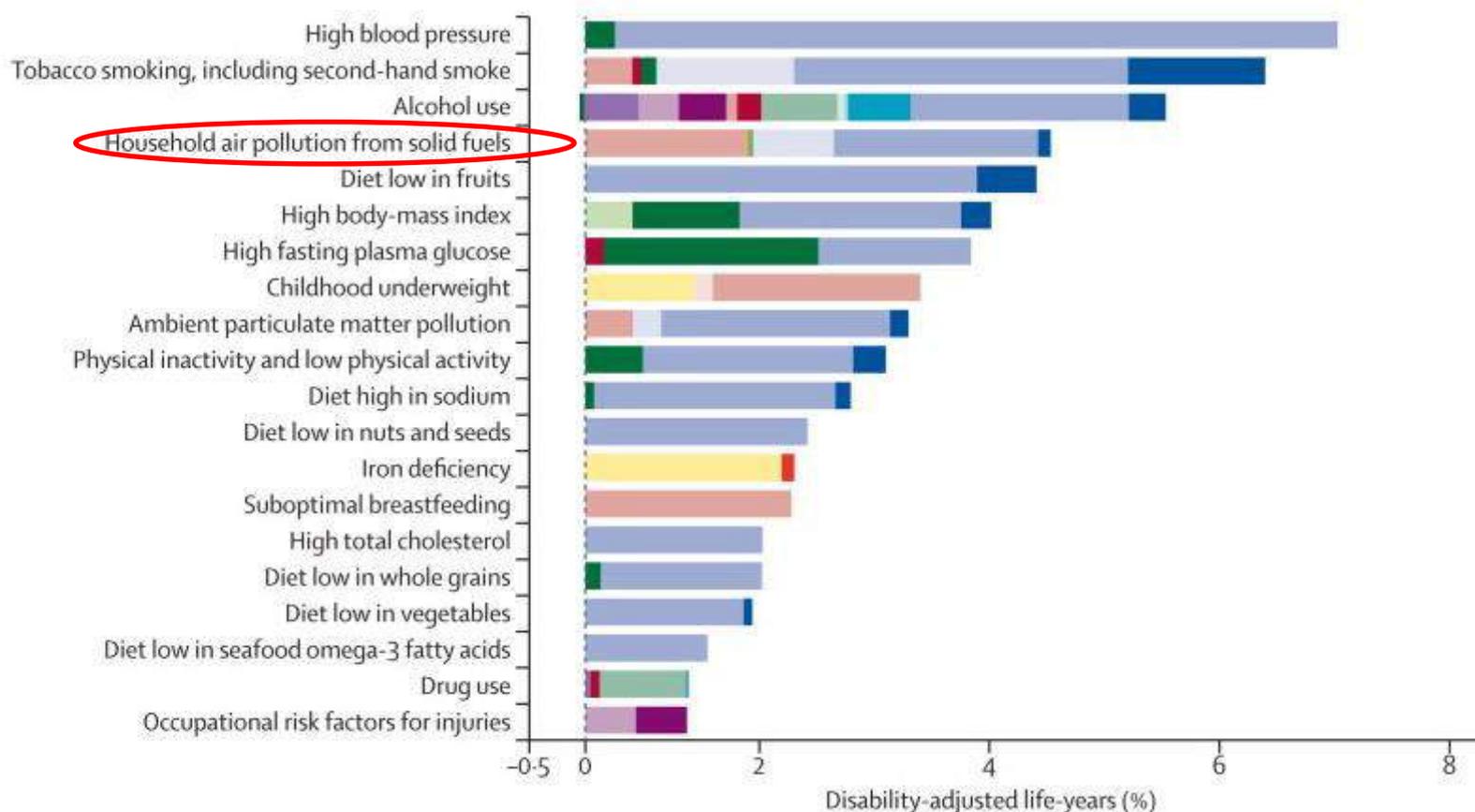
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The Problem

Global population relying on biomass for fuel

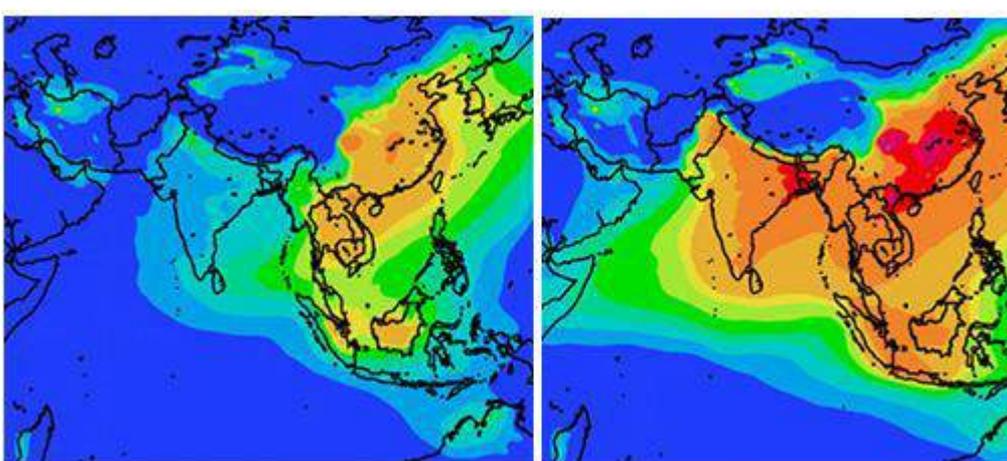
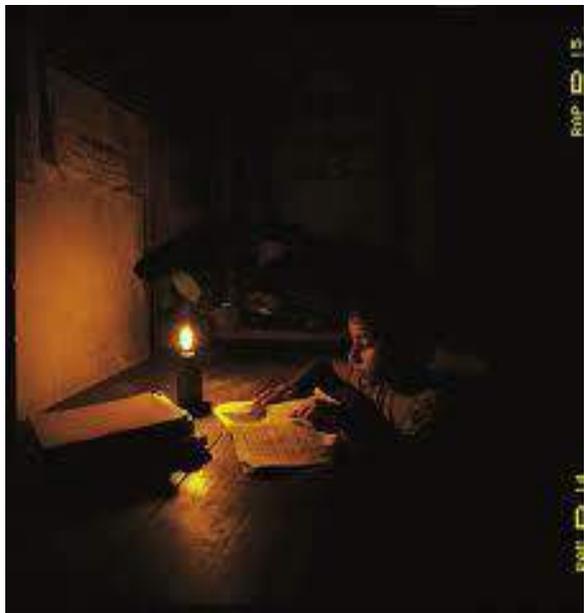


Health Impacts



Burden of disease attributable to 20 leading risk factors in 2010. Lim et al, 2012

Other Impacts



The problem in numbers

3 billion	Rely on biomass as cooking fuel
4.3 million	Premature deaths annually from exposure to household air pollution
50%	Premature deaths due to pneumonia among children under 5 are caused by soot inhaled from household air pollution
3.8 million	Premature deaths annually from NCDs that are attributed to exposure to household air pollution
12%	Of ambient air pollution globally is from household air pollution from cooking and heating stoves
25%	Of global black carbon emissions is from residential burning of solid fuels
50+ hours	Per month spent on harvesting and collection of wood
2030	SE4All target The total number of people relying on solid fuels will remain largely unchanged
Goals 7, 3, 11, 5, 13	SDGs to be achieved by improving access to clean cooking
50-90%	Particulate and CO Emissions that can be reduced by clean cookstoves

Solutions?

Failing Intervention Measures

- Improved housing & ventilation

- ~~– Windows~~
- ~~– Chimneys~~
- ~~– Hoods~~

- Better Stoves

- ~~– Fuel efficiency~~
- ~~– Combustion efficiency~~

- Better Fuels

- LPG
- Electricity
- Liquefied biomass

Short Term



Long Term

Clean Cookstoves



Sustainable Ethanol Cooking Fuel Plant Opens in Mozambique

Posted on [March 24, 2014](#) | [Leave a comment](#)

(Source: <http://www.ethanolproducer.com/article/cooking-fuel-plant-opens-in-mozambique>)



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EDWARD L. GLAESER

When helpful intentions go up in smoke

April 20, 2012 | By Edward L. Glaeser

THIS

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People often dream that better technology can solve the world's problems. There is, for example, an international movement that wants to combat indoor air pollution in the developing world. Reducing carbon

Carbon-financed cookstove fails to deliver hoped-for benefits in the field

Jennifer Langston

UW News

Replacing traditional cooking fires and stoves in the developing world with "cleaner" stoves is a potential strategy to reduce indoor air pollution and climate change.



man foibles often stymie little long-run impact on

The Cookstove Conundrum

BY VIVEK DEHEJIA APRIL 23, 2012 1:37 AM 13



Reasons for failure



Traditional stove: desirable features

- Portable
- Free and easily available
- Can have multiple stoves
- Accommodates different pot sizes
- Accommodate different fuel types and size
- Can cook and roast
- Easy to light



Similarities with other public health challenges

Pounds for Pounds



1. Participants decide how much weight they want to lose and how long they want to keep it off, and receive a personal incentive plan. Plans range from 15 pounds to 50 pounds, and 'maintenance' periods can extend plans to over a year. Rewards start at £70 and increase with more challenging goals to £425.
2. Participants measure their official starting weight at any local pharmacy, their doctor's or gym.
3. Then they start losing weight through healthy eating and exercise – Weight Wins provides weight loss tips in the Welcome Pack.
4. Participants weigh in conveniently once a month – Weight Wins credits their earnings for every pound they lose and keep off from their starting weight, up to a safe maximum.
5. Participants complete their plans and receive their earnings in cash or vouchers for holidays and shopping. They earn a big bonus if they are on target.

Employer Gives \$500 Bonus To Workers Who Quit Smoking

While many employers are ref
takes a softer approach.

By Dan Fastenberg



Pregnant women given vouchers if they quit smoking

Published: 6:21PM Friday September 20, 2013 Source: ONE News

Pregnant women in a South Auckland suburb now have a new incentive to stop smoking.

They are being rewarded with hundreds of dollars worth of vouchers for food and baby goods if they can kick the habit.

As medical costs have soared, some employers have tried various approaches to get smokers to quit. Some have instituted wellness



Low utilisation of maternal health services



- Challenge



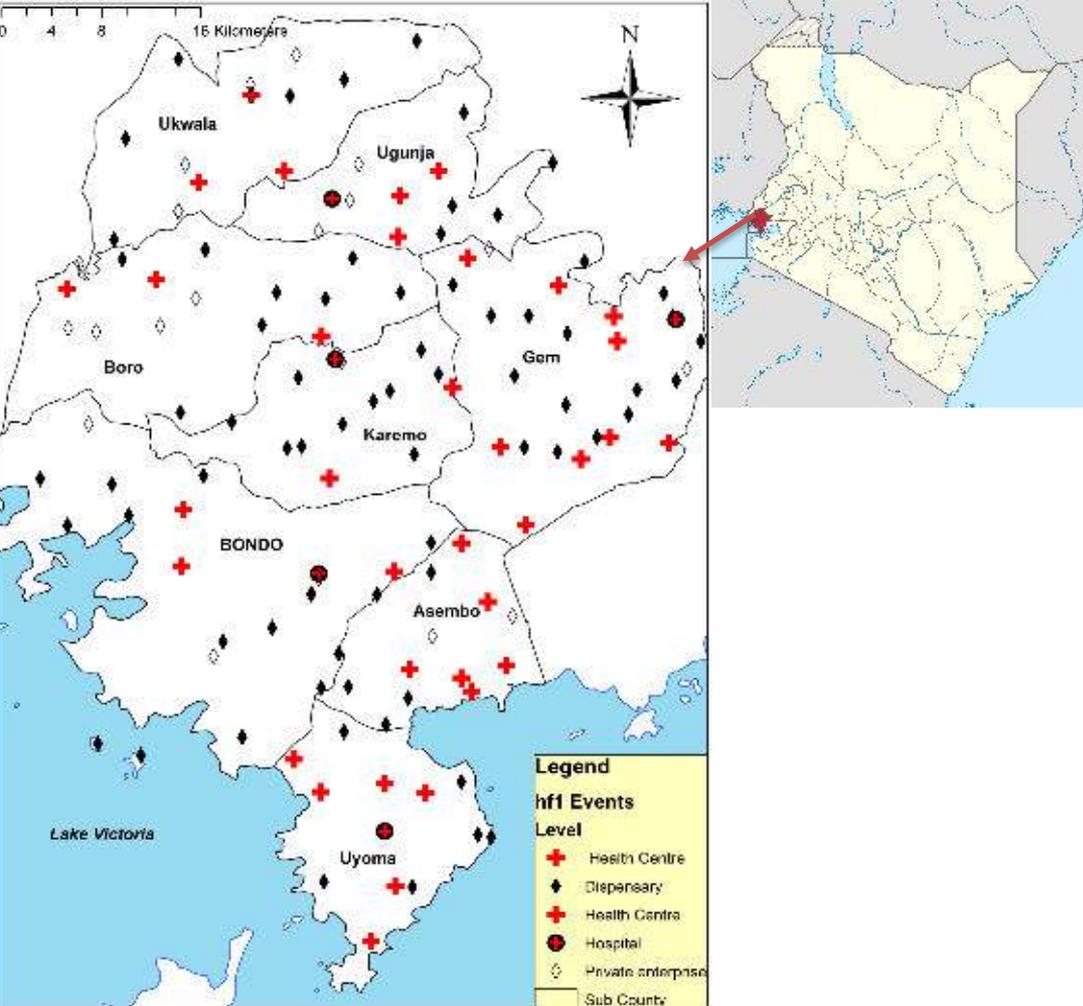
Bill and Melinda Gates Foundation, Grand Challenges Explorations

Topic: Inciting Healthy Behaviors: nudge, disrupt, leapfrog, reach

- Response

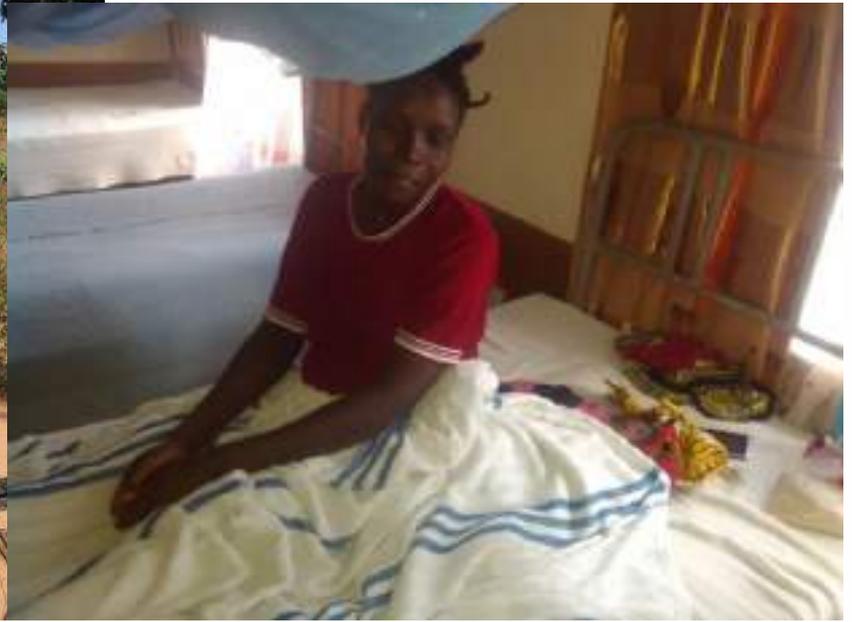


Afya credit incentive for improved maternal and child health



- Randomised Control Trial with 7200 participants in 48 health facilities
- 18-month followup of mother-child pair
- Remote tracking of participants through a Card + Reader system
- Automated cash transfer to participant's mobile bank account after each health visit

Preliminary Results



Lessons learnt and implications for land use change

- Understanding user behaviour is critical and should precede any intervention
- Qualitative research methods that go deeper than traditional survey methods and apply an interpretative approach are needed
- Need for a systems approach that focuses beyond the solution being introduced
- Intervention should focus on benefits prioritised by users, and careful analysis of trade-offs
- Financial incentives (e.g. payment for ecosystem services, food for work programmes etc) as a broad-based solution are effective when there are complex factors that hinder adoption of positive behaviour
- Payment incentives can help in internalisation of the benefits of positive behaviour change, but also in understanding what people are willing to trade-off
- Sustainability of payment incentives remains a challenge

Further information

- SEI behaviour and choice initiative
<https://www.sei-international.org/behaviour-choice>

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