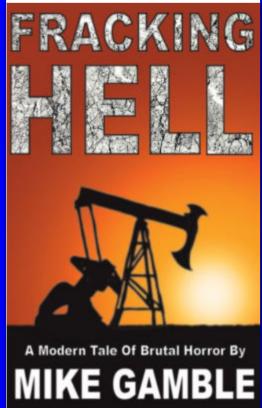
## Latin America: The First True Smokeless Region?

Kirk R. Smith, MPH, PhD
Professor of Global Environmental Health
University of California Berkeley and
Collaborative Clean Air Policy Centre
Habitat Centre, Delhi

## The Oil/Gas Industry Gets Blamed for everything

- Off-shore platform explosions
- Pipeline spills
- Tanker collisions
- Fracking impacts
- Diesel exhaust
- Urban air pollution
- Climate change

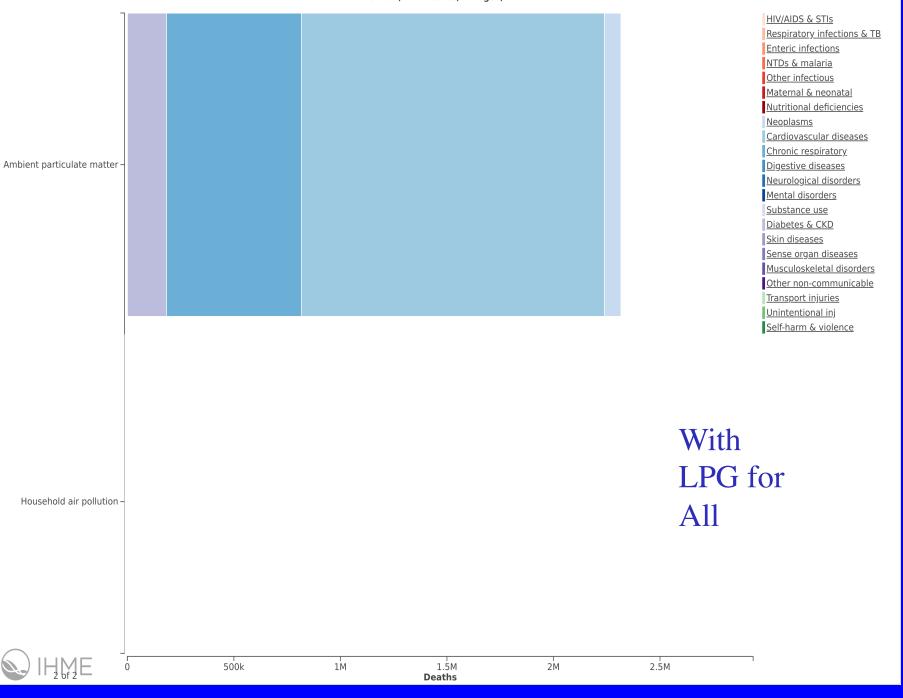






## But you should push back

You have the fuel that can save millions of lives every year among the world's poor



## Health impacts of household air pollution, i.e. not having LPG

- Chronic lung disease
- Heart Disease
- Stroke
- Lung Cancer
- Diabetes
- Pneumonia in children
- Low birthweight in babies

## Effect of reduction in household air pollution on childhood pneumonia in Guatemala (RESPIRE): a randomised controlled trial

Kirk R Smith, John P McCracken, Martin W Weber, Alan Hubbard, Alisa Jenny, Lisa M Thompson, John Balmes, Anaité Diaz, Byron Arana, Nigel Bruce

#### The Lancet, Nov 2011



## If you claim credit for the health benefits of LPG, however,

You need to support national and international efforts to make LPG universally available to the poor

## PAHO – WHO region of the Western Hemisphere

- Many global firsts among WHO Regions:
  - Smallpox eliminated in 1971
  - Polio eliminated in 1994
  - Rubella and congenital rubella syndrome eliminated in 2015
  - Endemic measles eliminated in 2016
- Now seriously considering target to eliminate primary use of solid fuel for cooking
- Target a risk factor, not a disease
- First risk factor in the world to be targeted after tobacco

## The British Medical Journal, Mar 2019

BMJ 2019;364:l330 doi: 10.1136/bmj.l330 (Published 22 March 2019)

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#### **EDITORIALS**

#### Clean household air for the Americas

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We should be aiming to eliminate polluting cooking fuels from the PAHO region

Agnes Soares da Silva environmental epidemiology adviser<sup>1</sup>, Kirk R Smith professor<sup>2</sup>

<sup>1</sup>Pan American Health Organization (PAHO), Washington DC, USA; <sup>2</sup>School of Public Health, University of California Berkeley, California, USA





#### 164th SESSION OF THE EXECUTIVE COMMITTEE

Washington, D.C., USA, 24-28 June 2019

Provisional Agenda Item 4.5

CE164/16 2 May 2019

Source: PAHO

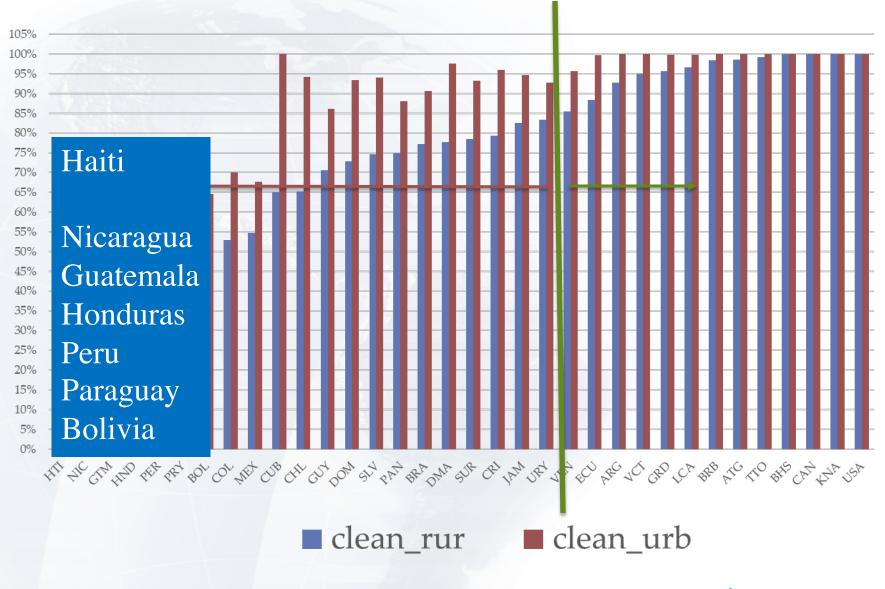
#### **57th DIRECTING COUNCIL**

#### 71st SESSION OF THE REGIONAL COMMITTEE OF WHO FOR THE AMERICAS

Washington, D.C., USA, 30 September-4 October 2019

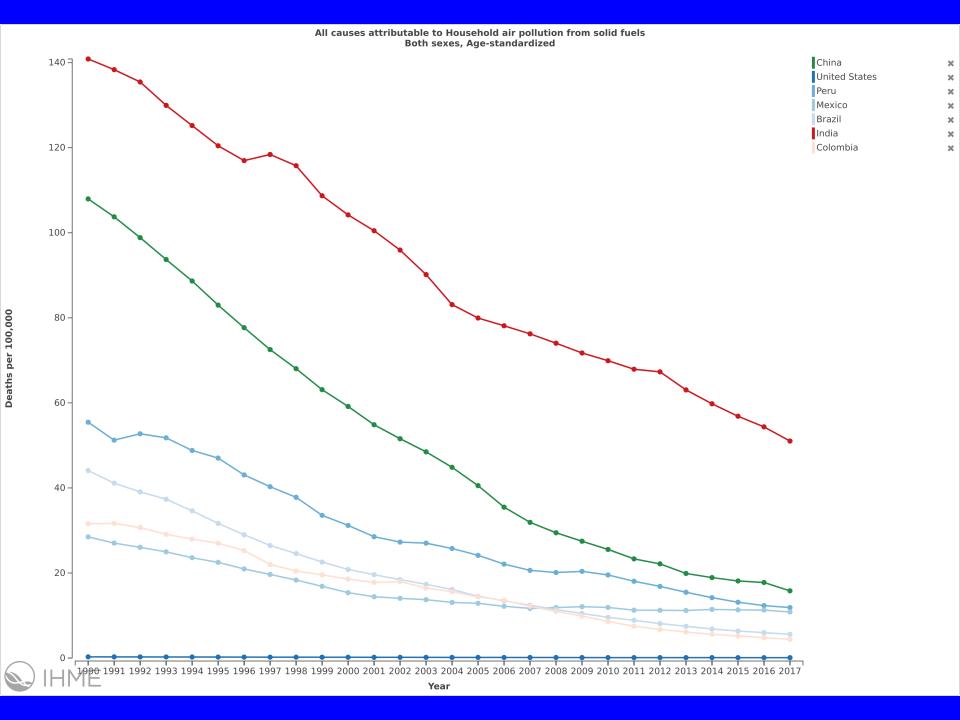
Polluting biomass cooking fuels	Elimination as a public health problem	Use of biomass cooking fuels reduced to less than 5% of population in each country by 2030	In five countries in the Region, more than 30% of the population uses household solid fuels (Haiti, Guatemala, Nicaragua, Honduras, and Paraguay). One-third of the total exposed population lives in Mexico and Peru, and another 11% lives in Brazil. Overall, in 14 of the 35 countries in the Region, 10% or more of the population still use polluting cooking fuels.
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Source: PAHO









#### Tobacco vrs HAP

- HAP causes more ill-health than smoking in poor countries
- Globally, HAP causes far more ill-health than secondhand tobacco smoke
- Being smoke free needs to consider both major sources of combustion near people
  - smoking and cooking

#### Tobacco vs HAP in PAHO

- Countries with more impact of HAP than tobacco
  - Guatemala, Haiti
- Countries with about the same impact of HAP and tobacco
  - Honduras, Nicaragua, Peru
- Poor states in Mexico and Brazil with similar impacts of the two
  - E.g., Chiapas, and Maranhao

#### Needed

- To change "subsidy" to "social investment"
- Subsidy/social investment experience is substantial in this region – need to apply this knowledge
- India doing its LPG program with income of Bolivia, fifth poorest in PAHO region
- Poorer countries in region may need help to reach 95% or more
- Will a PAHO target engage this help?

# LPG in India: 80 million poor households in <4 years ~500 million people

How was it done?

#### Three main elements

- Pahal engage electronic bank accounts
- Give it up move subsidy away from the middle class, peaceably
- Ujjwala provide connections directly to the poor

#### PAHAL Program – 2015

- All LPG now sold at international price no subsidy available on market
- People qualified for subsidy receive directly into their bank accounts
- Only when they purchase a refill does is it put into the account for the next purchase
- Instantly won the Guinness Book of Records as the largest bank transfer in history
- Eliminated tens of millions of wasted connections

#### But no upfront costs provided

- People need to pay their own "connection" cost ~\$30 for stove and deposit on first cylinder
- This barrier is substantial for poor
- Needed to have source of funds for paying this cost for the poor.
- Subsidy wasted on better off households drag on government expenditures
- But politically very difficult to remove subsidies

#### Give It Up campaign: 2015

- Middle class asked to give up their LPG subsidies – not taken away
- Health is the message "make a poor woman's kitchen clean"
- Extensive social marketing
  - Modi and other celebrities in speeches, media ads, bill boards, etc
  - − SMS messages − 2 billion in first year
  - Fairs, athletic events, posters, skits, etc
  - Website linking those giving up to those receiving: middle class to poor



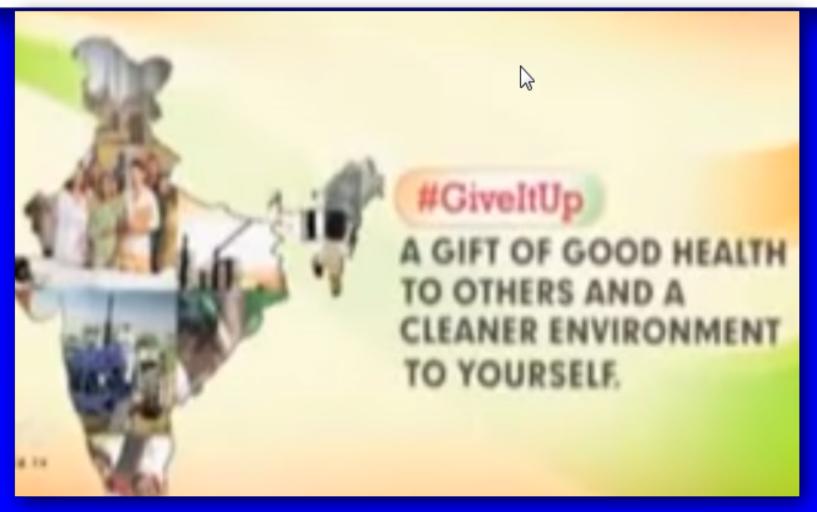
: Initiated by



#### Ministry of Petroleum & Natural Gas

Government of India

Feel the Joy of Giving



### MyLPG website: Feb 24, 2016



Search By:   Giveltup Champion   Benefi	lclary
Search Name:	LPG Id: 3
SEARCH SHOW ALL	

BENEFICIARY
MISHRI DEVI GURJAR
BALE . MALLAIAH
SHIV . KUMAR
RIYAJ . AHMAD
A. RASHID S/O KARIMULLA
EESVAR . SINGH
VIJENDRA . JATAV

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GO

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#### By 2016, however

- About 10 million had given it up, but the rate had slowed.
- Limit subsidy to those earning less than 15,000 USD/year did not bring many more
- Something else needed

### Modi Speech Feb 2016

- "We have decided to embark upon on a massive mission to provide LPG connection in the name of women members of poor households...."
- "This measure will empower women and protect their health. It will reduce drudgery and the time spent on cooking. It will also provide employment for rural youth in the supply chain of cooking gas."

### Ujjwala

- Adding 10,000 distributors to the existing 18,500
- National no fault insurance scheme for accidents national number to call
- 1.2 billion USD earmarked for one-time connection costs
- Massive national database with every customer's refill experience
- 5 kg cylinder developed
- All transactions only to women's accounts





## Every woman will get her due respect and dignity.

"You can imagine what happens to a mother's health in that home and how her children must be breathing with all that smoke." - Narendra Modi.

With the Pradhan Mantri Ujjwala Yojana, that will benefit 5 crore women belonging to below-poverty-line households.



#### Clean Fuel. Better Life.



in the gracious presence of Shri Ram Naik

Shri Kalraj Mishra Hon'ble Union Minister of Micro, Small and Medium Enterprises, Govt. of India Shri Dharmendra Pradhan Hon'ble Minister of State, Petroleum and Natural Gas (Independent charge), Govt. of India Shri Manoj Sinha Hon'ble Minister of Railways, Govt. of India

At Maldepur Morh, Ballia, Uttar Pradesh, on 1st May, 2016 at 10 AM.

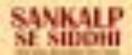


Ministry of Petroleum & Natural Gas Government of India

Terms & Conditions apply. For more information, kindly visit your nearest LPG distributor.



Ujjwala 3 Cr Campaign\_Eng\_1x3\_9:10.17









#### CHOKED LUNGS BURNING EYES AN OLD STORY NOW

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Chine fael, Better Mrs.



#### Success due to

- Efficient partly private oil marketing companies with well-developed supply chains
- Top to bottom commitment from Modi to the local LPG distributors
- Massive use of social marketing/advertising
- Intensive use of JAM electronic bank accounts; electronic ID cards, and mobile phones
- Appeal to middle class to give up subsidies pays for entire new program
- Politically popular with only minor complaints
- Aspirational transition for households

### Final targets of Ujjwala 1.0

- 80 million new connections to poor households
- Plus 40+ million households as natural growth in middle class
- 95% of country will be covered
- Started at 60% in 2015
- To be achieved by Sep 15, 2019

### Ujjwala 2.0

- Extend: to remainder of country
  - More difficult more poor, remote, and disconnected communities
- Enhance: usage needs to be enhanced as many Ujjwala customers using only onethird of full refill numbers
- Extinguish: Further move middle class away from subsidies in order to pay for increased subsidy among the very poorest

### Barriers to Usage

- Information: about program and about benefits of LPG use
  - Massive village campaign 200,000 meetings
- Reliability: Supply not reliable or is slow in many areas
  - Free connection to a 5-kg second cylinder

#### Cost

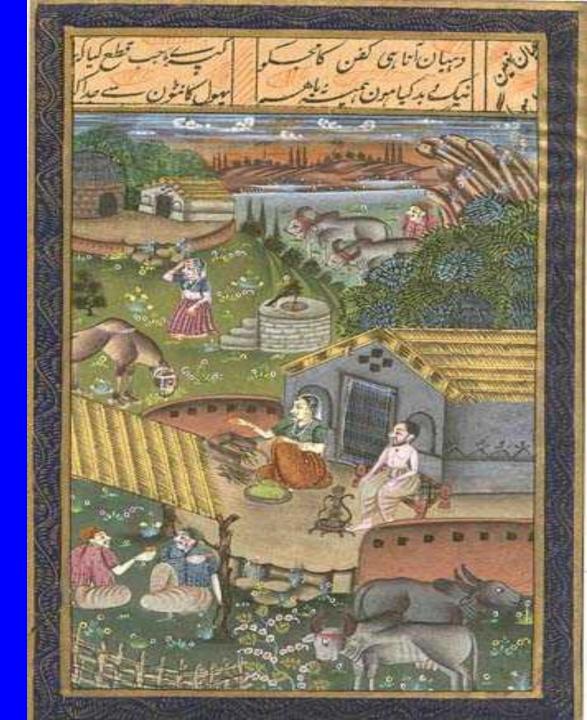
- Upfront costs second cylinder and stove to be added to benefits
- Fuel cost better target subsidies to give more to very poor and less to middle class

### Considering

- Link to India's new health insurance scheme Long-life India or "Modicare"
- Link to antenatal care system introduce free LPG as part of pregnancy benefits
- Link to national Rural Employment Scheme, which is now engaging >40% of villages

## Many thanks

For publications & presentations: Just "Google" Kirk R. Smith



#### India and China Examples

- National LPG program in India is entirely paid by shifting subsidy away from middle class to the poor.
   More retargeting will be needed, however
  - Change "subsidy" to "social investment" based on health evidence
- China's solid fuel change out in the Beijing-Tianjian-Hebei region started 2017 to reach 80% by 2022 includes spaceheating
  - Paid by ambient air pollution control keeping the pollution from Beijing cost-effectively
- Both approaches possible in PAHO