Taking Household Air Pollution (HAP) to the top of the Global Energy Agenda

Dr. Kalpana Balakrishnan
Director, WHO Collaborating Center
Sri Ramachandra University
Chennai, India
According highest priority for HAP actions

• Where are the critical gaps for action?
• How best can the gaps be addressed?
• How best can we sustain actions?
Strong evidence, numerous resources but where are the critical gaps for action?
Understanding and Accepting the Evidence on Health Effects

- **3.8 million pre-mature deaths** annually from exposure to HAP (with contributions ranging from 10% to 25% across major NCDs and 45% for child pneumonia)

- Consistent effects on birthweight, other adverse pregnancy outcomes, TB, cataracts and other cancers, end-points that are not currently included in the burden estimates.

- The **current burden** is thus **likely an underestimate**.

- Evidence on exposure estimates and E-R relationships (from the national, regional and global pool of studies) is remarkably consistent.

- Impacts are **not limited to women** or rural populations.

- **Contributions from HAP to NCDs is at par or exceeds that from traditional risk factors** such as ETS, low physical activity and diet low in fruits. Only smoking and high salt intake contribute to greater burdens (when compared to HAP) for NCDs.

- **HAP attributable burden continues to be at par or greater than what is attributable to AAP** in nearly every region where solid fuel use is prevalent.
Capturing Health Inequities

- Fuel gathering and cooking with solid fuels imposes a tremendous burden on the physical and mental health of women.
- Solid cook-fuels are a triple whammy on women’s time (work, housework and child care).
- Opportunity cost for women’s time is not factored in most cost-benefit analyses at the household, community or national levels.
The global transient premature deaths avoided due to changes in ambient PM$_{2.5}$ from a phased removal of solid fuel cook-stove emissions by 2020.

Lacy et al., 2017
How best can the gaps be addressed?
Fulfilling Aspirations with Social Investments

- **PMUY**: Free connections to BPL women under PMUY. ~1.5 cr. connections given till Dec’16
- **DBTL/PAHAL I**: Subsidy transfer to bank account even without Aadhaar card under DBTL/PAHAL
- **RGGLVY CSR**: Free connections for BPL HH under OMCs’ CSR scheme. ~70 lakhs HH covered till 2016
- **RGGLVY**: Addition of semi-urban and rural distributors under RGGLVY. ~5,600 new rural distributors were added till 2016
- **Give It Up**: Higher income group customers give up subsidy to help low income group under +Give It Up. More than 1 crore people gave up their subsidy till date.

**Dalberg Report, 2017**

- **Domestic LPG customers (in Lakhs)**
  - 2007: ~800
  - 2017: ~2,400

- **5,70,71,152**
- **Pradhan Mantri Ujjwala Yojana Connections**
- **713 Districts Covered**
Sharing lessons from implementation of clean cooking efforts

Quinn et al., 2018
Creating Infra-structure for monitoring and evaluation

**Panel: Targets and tasks of China’s Air Pollution Prevention and Control Action Plan (2013-17)**

**Air quality Improvement Targets**
- By 2017, urban concentrations of PM$_{2.5}$ shall be decreased by 10% compared with 2012; the annual number of days with fairly good air quality will gradually increase.
- PM$_{2.5}$ concentrations for the Beijing-Tianjin-Hebei region shall be lowered by 25%, the Yangtze River Delta region lowered by 20%, and the Pearl River Delta region lowered by 15% in 2017 compared with 2013.
- The annual average PM$_{2.5}$ concentration in Beijing shall be controlled below 60 µg/m$^3$ in 2017.

**Ten tasks**
- Increase efforts towards comprehensive control and reduce emissions of multi-pollutants.
- Optimise the industrial infrastructure and promote industrial restructuring.
- Accelerate technology transformation and improve innovation capability.
- Adjust the energy infrastructure and increase clean energy supply.
- Strengthen environmental thresholds and optimise industrial layout.
- Promote the role of market mechanisms and improve environmental economic policies.
- Improve legal and regulatory systems and continue supervision and management based on law.
- Establish regional coordination mechanisms and integrated environmental management.
- Establish monitoring and warning systems to cope with air pollution episodes.
- Clarify the responsibilities of the government, enterprises, and society, and mobilise public participation.

**Health impact of China’s Air Pollution Prevention and Control Action Plan: an analysis of national air quality monitoring and mortality data**

Jing Huang, Xiaoqian Pan, Xinbiao Guo, Guoxing Li

*Lancet 2018*
How best can we sustain actions?
Prioritizing Upstream Policy Change

Rosenthal et al., 2018
Utilizing available health systems

- **Maternal & newborn health**: Reducing maternal and neonatal mortality through home-based prevention and curative care.
- **Child health**: Immunization uptake, integrated management of newborn and childhood diseases (e.g., for malaria, pneumonia, and diarrhoea).
- **Health education**: Maternal and child health education.
- **Mental health**: Promoting psychological interventions to treat or prevent mental, neurological, or substance abuse disorders.
- **Public health & Global Health Security**: Working as cultural brokers and facilitating patient access to care for underserved groups.
- **Trauma & surgical care**: Palliative care, treatment, and rehabilitation.
- **Noncommunicable diseases**: Behavioural change (diet change, physical activity), increased care utilization (cancer screening, maintaining and keeping appointments), diabetes, hypertension, and obesity management and care.

*WHO guideline on health policy and system support to optimize community health worker programmes*
Fueling the clean cooking transition requires that we keep women and children as our focal point for actions.

MAKING A DIFFERENCE SHOULD NOT BE A MATTER OF CHOICE!