New health evidence and action in Masindi

“Rising up to the challenge of lung diseases epidemic and their risk factors in Masindi-the case of FRESH AIR Uganda”

Bruce J Kirenga
Makerere University Medical School/Mulago Hospital
20th August 2015
Outline of presentation

- Major dangers to lung health
- A recap of key findings from FRESH AIR surveys
- What people said after the FRESH AIR survey
- The FRESH AIR Lung Health improvement model
- The Global Bridges project-design, aims, initial outputs, lessons learned
- The H2020 project-design, aims looking ahead
- The unfolding collaboration with Global Alliance for Clean Cook stoves
The 3 major dangers to lung health in low and middle income countries (LMIC)

- Indoor air pollution from biomass smoke
- And out air pollution in urban areas

Tobacco smoking

HIV infection and Tuberculosis
Key findings from FRESH AIR surveys

- High burden of respiratory diseases
  - COPD-16%

- High prevalence of risk factors
  - Biomass -95%
  - Smoking -24% raising >50% among young men compared to national average of 7.9%

- Low knowledge and awareness-
  - the disease COPD not known at all and in reporting systems

- Limited diagnostic and treatment services
  - No diagnostic test for airway diseases
  - Only drug available- oral salbutamol
What people said after the FRESH AIR survey
The 3-pillar FRESH AIR response to the lung diseases epidemic and their risk factors model in low income settings

- Developed closely with district health officers and government and thorough literature review
- Undertook a qualitative consultative survey in Feb 2014 with
  - District leaders
  - District health officers
  - Health care workers (HCWs)
  - Community members
- Theme: What is the appropriate response to lung diseases epidemic in the district?
- Findings
  - Teach our HCW
  - Develop materials for HCWs to use to raise awareness
FRESH AIR 3-pillar model for lung Health improvement in LMIC

Pillar 1
- Work closely with communities and their leadership
  - **Community engagement**

Pillar 2
- Empower communities to find their own solutions
  - **Education and awareness**

Pillar 3
- Use implementation science approach to introduce intervention
  - **Identify adapt and deploy what is known to work**
FRESH AIR continuum of action for lung health

- Continuum of action for lung health
- Promoting and protecting children's health
- Awareness raising
- Prevention
- Diagnosis
- Treatment and support for patients
What do we hope to achieve

**FRESH AIR actions**
- Project interventions

**Short term**
- Improved knowledge & outcomes for patients and populations
- Improved skills for healthcare workers
- Better adaptation of innovation to new contexts

**Timescale**
- Project advocacy and capacity building for IS & health economics

**Long term**
- New knowledge on implementation
  - Improved knowledge of critical local factors
  - New models for prevention diagnosis and treatment
  - Improved application of evidence for lung diseases and other NCDs

**FRESH AIR primary impacts**
- Knowledge of risk factors spreads

**FRESH AIR secondary impacts**
- Improvements in prevention, diagnosis and treatment nationally
- New markets & opportunities for medical innovation
- Impact for patients and populations other LMICs & HICs
Communities find local solution - the case of the Bulyango 1
Project title

“Training Community Health Workers in Rural Uganda to Introduce Stop Smoking Interventions in the Context of a Lung Health Awareness Campaign”

Funded by
HAVARD Medical School - Mayo clinic Global Bridges project

Project Goal components

- Train health care workers (HCWs) in Masindi District about lung health

- Work with the trained HCWs to develop educational materials for them to use to:
  - Train VHT
  - in raising awareness about lung diseases and their major risk factors
Interim outputs

- Lung education training power point slides developed, piloted and finalized
- 12 Health care workers trainers as trainers in Lung Health
- Trained trainers practiced and trained 50 Health workers
- Lung Health Education desktop flip book developed, piloted under approval by Ministry of Health
- Lung Health Education posters developed piloted, under approval by Ministry of Health
- Village training planned later this month
Show slide show of flip book and poster
Project title

“Free Respiratory Evaluation and Smoke-exposure reduction by primary Health cAre Integrated gRoups – FRESH AIR project”

Overarching questions

- Can interventions known to protect lung health from smoking and biomass elsewhere effective in LMIC at public health level?
- How can they be made available?
FRESH AIR consortium

- Leiden University Medical Centre, The Netherlands
- International Primary Care Respiratory Group, United Kingdom
- Makerere University, Uganda
- Ministerstvo Zdravoohraneniva Kyrgyzskoy Republiki, Kyrgyzstan
- University of Medicine & Pharmacy Ho Chi Minh, Vietnam
- University of Crete, Greece
- Artec, Netherlands
- European Lung Foundation, United Kingdom
- University of Washington, United States
- NCSCT Community Interest Company (United Kingdom)
- University Medical Centre Groningen, The Netherlands
- Kopenhavn Universitet, Denmark
- European COPD Coalition, Belgium
- University of Plymouth, United Kingdom
To identify the specific factors that influence the implementation of evidenced-based interventions in the prevention and treatment of non-communicable lung diseases in community settings in four countries representing very different contexts: the Kyrgyz Republic, Vietnam, Uganda and Greece.

To explore which awareness-raising approaches are most effective in motivating behaviour change in tobacco consumption and HAP exposure and to evaluate the feasibility, acceptability and effectiveness of HAP reduction interventions in selected communities in these countries.

To provide access to smoking cessation support by adapting successful evidence-based Very Brief Advice (VBA) interventions that will be delivered by healthcare workers in these countries.
To test the feasibility and acceptability of methods for diagnosing COPD using innovative spirometry in these four countries.

To test how to best reduce children’s respiratory symptoms and the risk of lung damage by exploring the feasibility, acceptability and optimal organisation of interventions designed to raise awareness of the damaging effects of exposure to tobacco smoke and HAP during pregnancy and infancy and to improve diagnosis and treatment of children aged under-5 presenting to primary care with respiratory symptoms.
To test the feasibility and acceptability of pulmonary rehabilitation (PR) as a low cost treatment for obstructive lung disease in these countries.

To generate new knowledge, innovation and scalable models that ensure equitable access and to support their implementation through proactive dissemination within the four countries, regionally and internationally.)
Response 3: Explore avenues to enable large scale access to effective interventions-The FRESH AIR- GACC Collaboration

- No single project can provide for entire communities interventions

- Communities will have to provide the solutions themselves

- Anticipated collaboration areas with GACC
  - Share experience in talking the indoor biomass smoke air pollution
  - Leverage each other strengths
    - FRESH AIR- Research based initiatives
    - GACC- Intervention roll out based initiatives
  - Collaborate in awareness raising and findings dissemination
Basic public health impact assessment design

Community A
Risk factor removed

- Measure public health outcomes
- Visit to health facilities, symptoms, deaths, low birth weight, miscarriages, diseases specific medicines consumption, number of work days lost, average monthly income
  - Compare to rates in community B

Roll out intervention

Community B
usual state

- Measure public health outcomes
- Visit to health facilities, symptoms, deaths, low birth weight, miscarriages, diseases specific medicines consumption, number of work days lost, average monthly income
  - Compare to rates in community A
If your lungs are not working nothing else works - Rupert Jones 2013

Thank you