

**Ministry of Health, Jamaica**

**INDOOR AIR QUALITY IN THE  
HOUSEHOLD USE OF SOLID  
FUELS FOR COOKING**

**June 17<sup>th</sup> 2015**

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## Jamaica is Third Happiest Nation on Earth

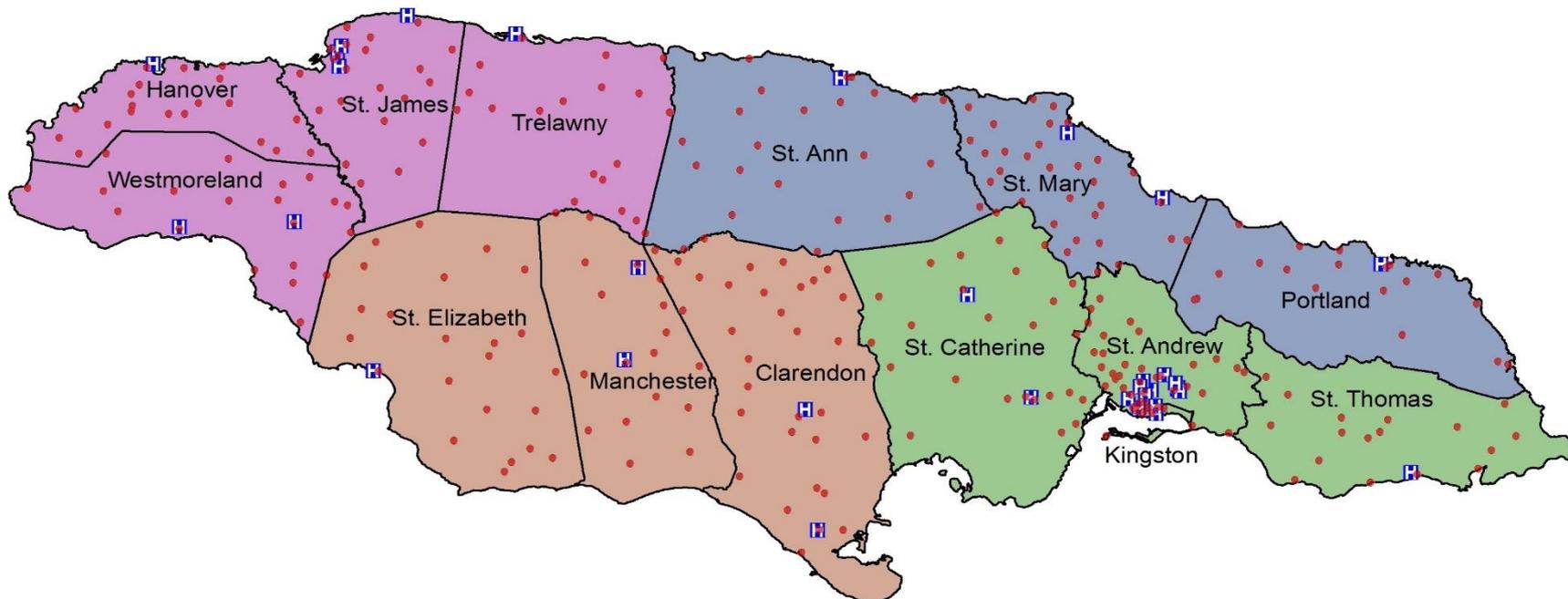


# COUNTRY DEMOGRAPHICS

- Population: **2,712,100**
- No. of Households using Biomass: **132,882**
- % Urban Population: **52**
- % Rural Population: **48**
- % household with access to electricity: **91**
- % Total use of biomass: **13%**



# Health Facilities Located in Jamaica



This map is part of a series produced from the Ministry of Health's 2013 listing of health facilities for Jamaica. Each map shows the location of Hospitals and Health Centres by parish.



## Legend

- Health Centres
- H Hospitals
- Parishes
- North Eastern Health Region
- South Eastern Health Region
- Southern Health Region
- Western Health Region

# MORTALITY ATTRIBUTABLE TO HOUSEHOLD AIR POLLUTION

0-4 years	Both sexes	<b>13</b> [0-31]
18+ years	Male	<b>286</b> [0-685]
	Female	<b>255</b> [0-610]
All age groups (total)	Both sexes	<b>554</b> [0-1 306]
0-4 years	Both sexes	<b>1 284</b> [0-2 974]
18+ years	Male	<b>6 998</b> [0-16 432]
	Female	<b>5 336</b> [0-12 329]
All age groups (total)	Both sexes	<b>13 618</b> [0-31 375]

Retrieved from WHO Database HAP Burden of Disease in the Americas



# AVAILABILITY OF DATA RELATED TO HAP

- Data not available in one location
- Collected at hospital level and feed into National level
- Data on respiratory infection
  - Collected weekly (# only) from 77 sentinel sites across Jamaica on Fever and Respiratory symptoms and admitted Lower Respiratory Tract infections.
  - Data collected weekly from 6 hospitals across the island (demographic and geographic) on cases of fever with respiratory distress requiring admission (SARI)



# AVAILABILITY OF DATA RELATED TO HAP

- Data regarding pneumonias
  - Admitted Lower Respiratory Tract Infections is used as a proxy for pneumonia.
- Data available for mortality cause specific disaggregated by parishes
  - Infant mortality (<1 year)
  - Child mortality (<5 year)
  - Pneumonia mortality <5 year or (<1 year)
  - Mortality for chronic obstructive pulmonary disease
  - Mortality for lung cancer in men and women



# NATIONAL PLAN

- There is currently no plan
- Ministry of Health through the Environmental Health Unit
- Several stakeholder would be key to such a plan to include:
  - The Ministry of Social Security
  - Ministry of Mining and Energy
  - The Ministry of Land, Water, Environment and Climate Change
  - The Forestry Department
  - The National Environment and Planning Agency



# NATIONAL PLAN – POLICY/LEGISLATION

- The Public Health Act Nuisance Regulations
- Household smoke not targeted



# NATIONAL PLAN – SOCIO-ECONOMIC PROGRAM

- **PATH Programme** - The Programme of Advancement Through Health and Education (PATH) is a conditional cash transfer programme funded by the Government of Jamaica and the World Bank and is aimed at delivering benefits by way of cash grants to the most needy and vulnerable in the society.
  - Does not intentionally target any public health issue
- **NHF** - The National Health Fund is established to provide financial support to the national healthcare system
  - No project submitted toward this endeavour



## Nearly 2 billion risk pollution

Thursday, September 04, 2014



PARIS, France — Nearly 2 billion people die each year from early death and disability due to household air pollution from fires made with wood, charcoal or coal to cook.

Some 40 per cent of the world's population is still using wood, charcoal or coal to cook, according to a new study published by The Lancet Research Group.

The study, led by Stephen Gordon of the Center for Global Health at Ohio State University, shows that people in low-income countries are at higher risk of respiratory ailments as a result of the air pollution from household fires. Studies in India have found that the air pollution from a typical London Street. and

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## home air

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A woman cooking at her home in the Democratic Republic of Congo.

### When cooking dinner is a matter of life and death

ALL WOMAN Monday, September 10, 2012

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FOR millions of women around the world, cooking the family meal is a daily, dangerous chore. Sweating over smoky open stoves, they put their lives and their children at risk every day.

More than three billion people, or 40 per cent of the planet's population still rely on open fires to cook, balancing a pot on top of some stones, under which burns a fire fueled by wood and coal, dung or left-over crops.

"Before we had just a dirt floor in one of the corners of the kitchen, where we would build a small fire, and we'd put a metal stand over it for the pots. There was so much smoke in the house all the time," Maria Lopez Chigil said.

"The children had a lot of problems with their eyes, and with their throats and congestion," the 35-year-old mother of four told AFP, speaking by phone with the help of a translator, from her home in the Guatemalan highlands.

The World Health Organisation estimates that reliance on solid fuels is one of the 10 most important threats to

# TYPE OF FUEL USED FOR COOKING

Parish	Total Households	Type of Fuel Used for Cooking							
		LPG	Electric	Wood	Charcoal	Kerosene	Other	No Cooking Done	Not Reported
Kingston	29,513	25,172	452	126	1,926	37	15	1,027	758
<b>JAMAICA</b>	<b>881,089</b>	<b>709,096</b>	<b>15,508</b>	<b>78,987</b>	<b>53,895</b>	<b>680</b>	<b>362</b>	<b>12,762</b>	<b>9,799</b>



# THE TREND

- 40 % use of biomass in 1990 to 13% in 2013.

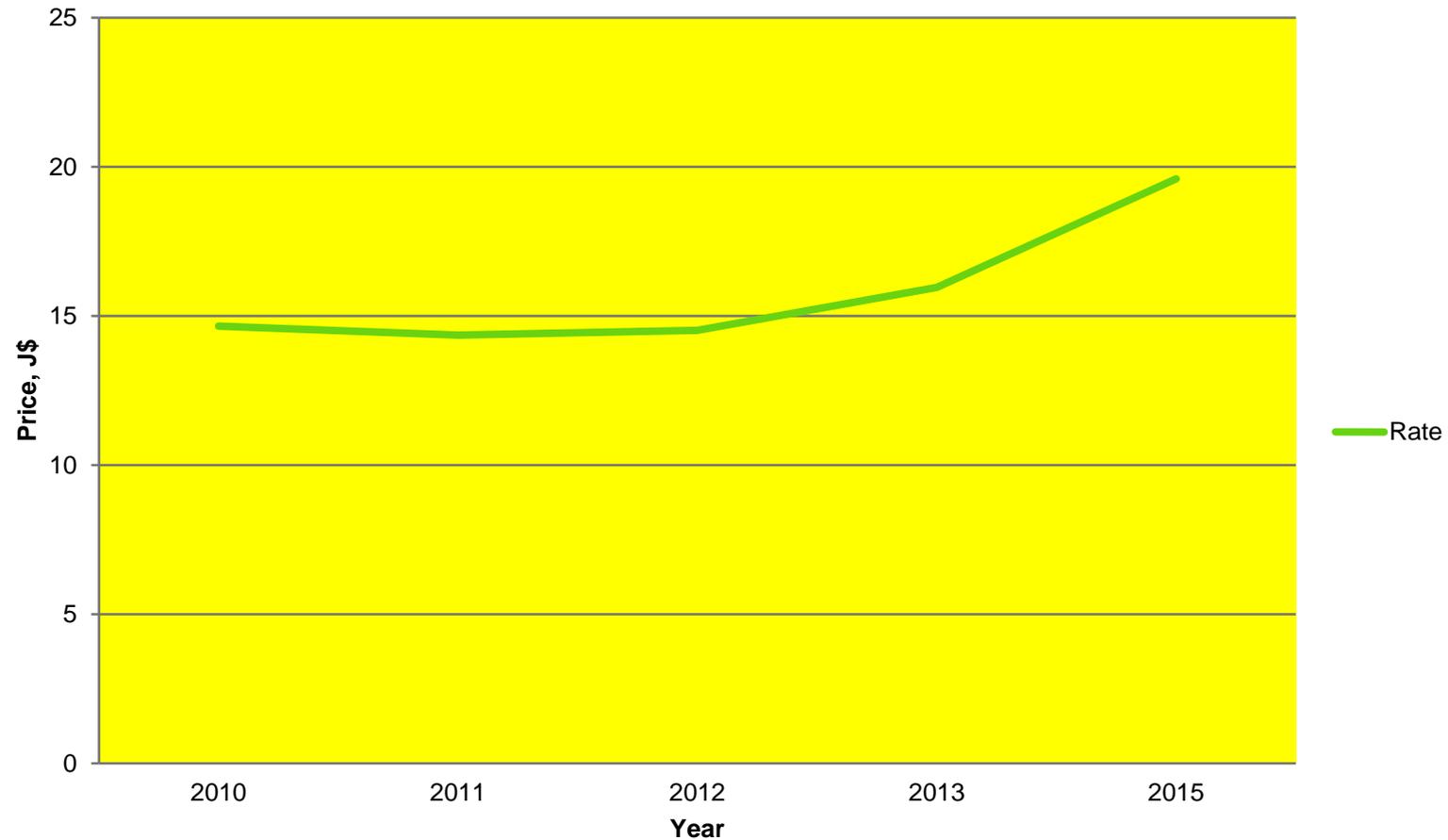


- 81% household with electricity to 91% in 2013



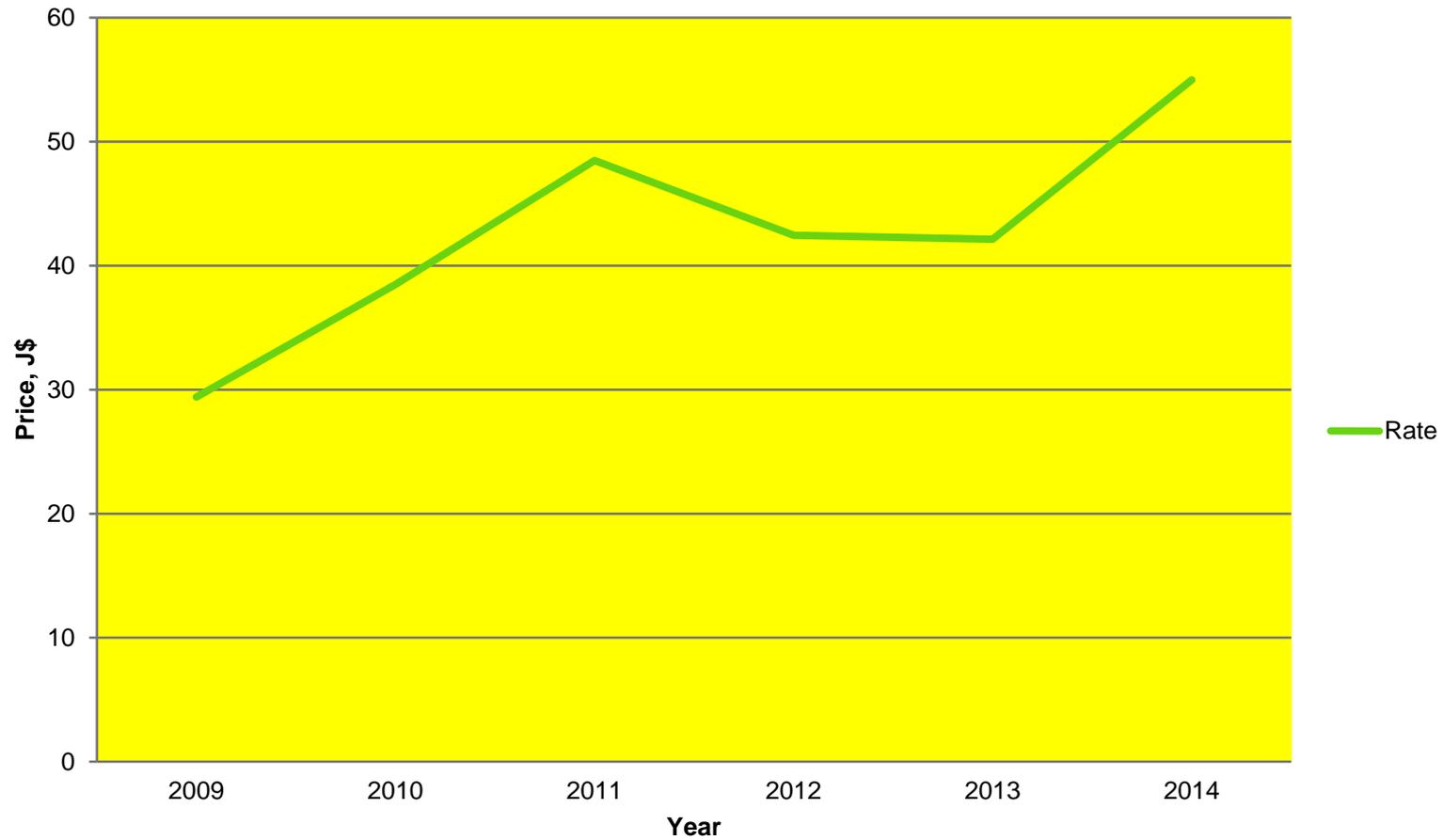
# TREND IN ELECTRICITY RATES

## Electricity Rate Trend in Jamaica



# TREND IN LPG RATES

## Propane Cooking Gas Rate Trend



# THE NATIONAL ENERGY POLICY

- Minimize the adverse environmental effects and pollution caused by the production, storage, transport and use of energy, and minimize environmental degradation as a result of the use of fuel wood
- Liquid petroleum gas (LPG) has replaced fuel wood as the primary household fuel in 84% of Jamaican homes



# THE NATIONAL ENERGY POLICY

- Under the Rural Electrification Programme, 7,000 km of low voltage distribution lines were constructed and approximately 70,000 rural homes electrified. Approximately 91% of households island-wide now have access to electricity.
- Electricity prices now reflect true cost. However, Government's policy continues to provide a lifeline rate, which benefits monthly consumers of less than 100kWh per month. This **cross-subsidy** is provided by those consumers using more than 101kWh per month.



# WAY FORWARD

- Household air quality – household fuel combustion
- Indoor air quality in general
- Included in 2016/2017 biennial work-plan
- Greater awareness



# REFERENCES

- The Statistical Institute of Jamaica
- The Jamaica Observer
- The World Health Organization
- The University of the West Indies Library

