

The Economic Impacts of Ebola, and Rebuilding the Health Care System

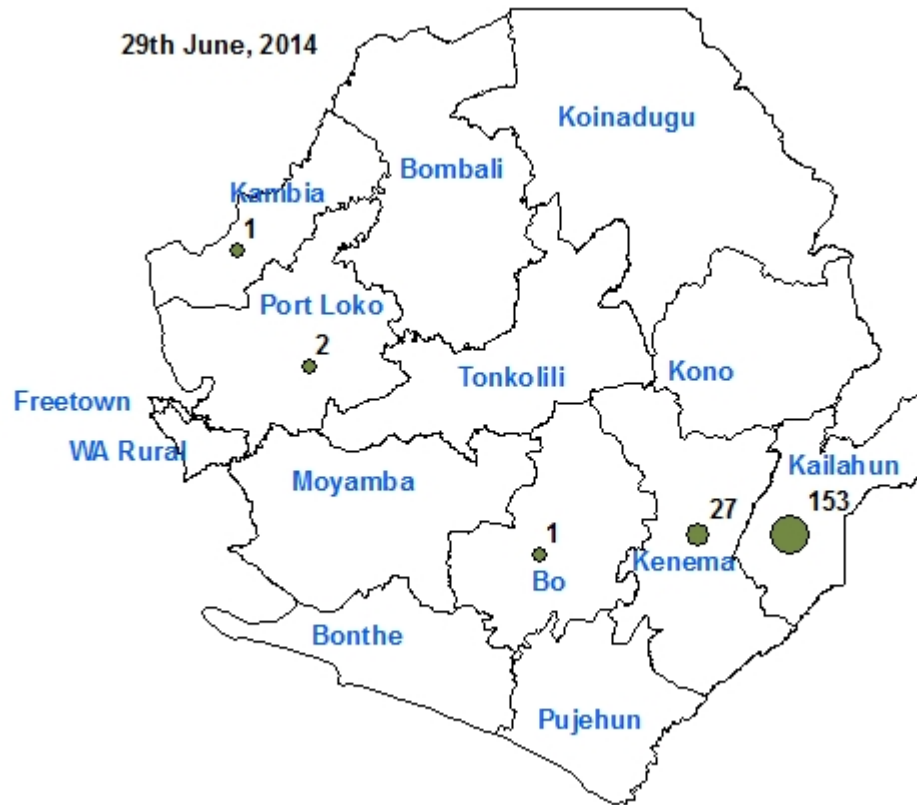
Rachel Glennerster

Executive Director, Abdul Latif Jameel Poverty Action Lab, MIT
Lead Academic for Sierra Leone, International Growth Center

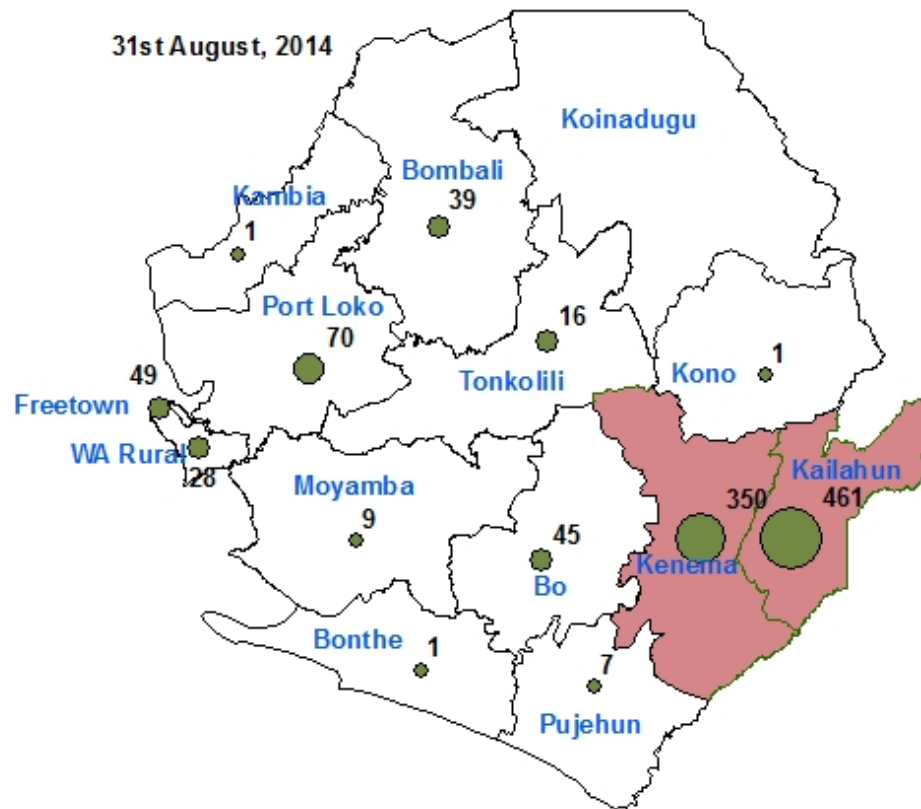
Jan, 2015



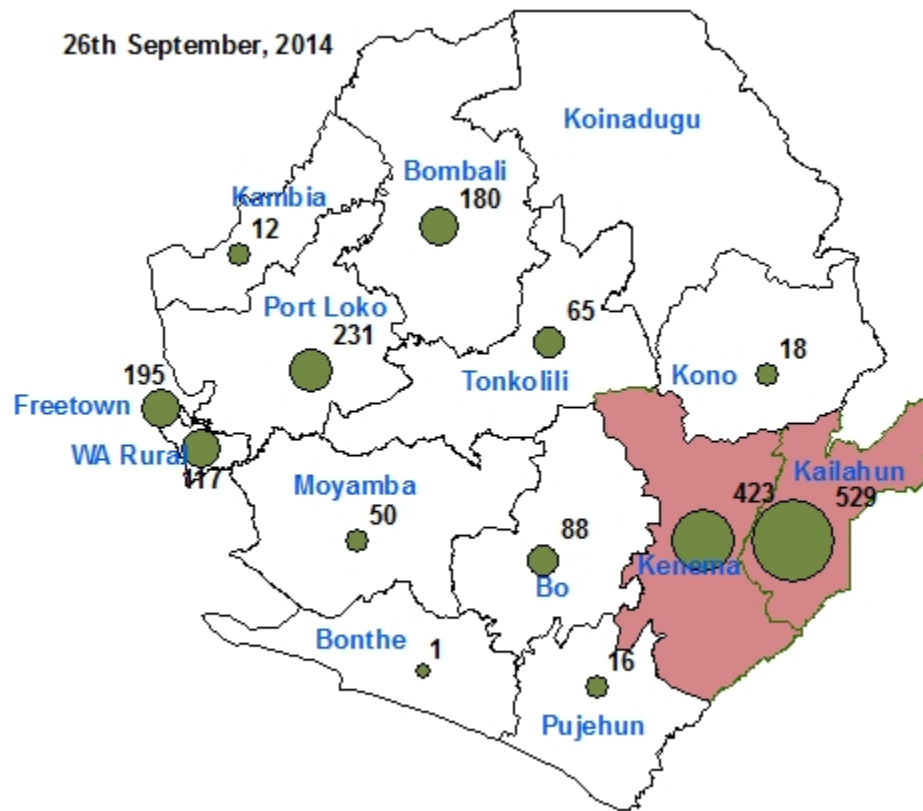
Ebola cases end June, Sierra Leone



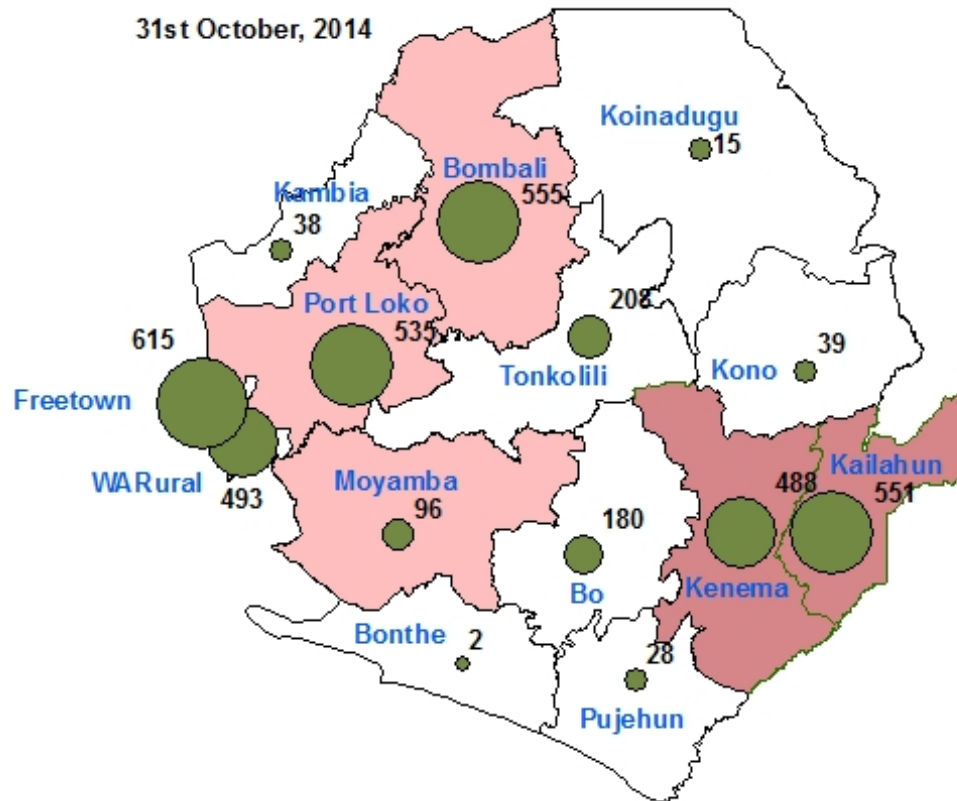
Ebola cases, cordon areas, end Aug, Sierra Leone



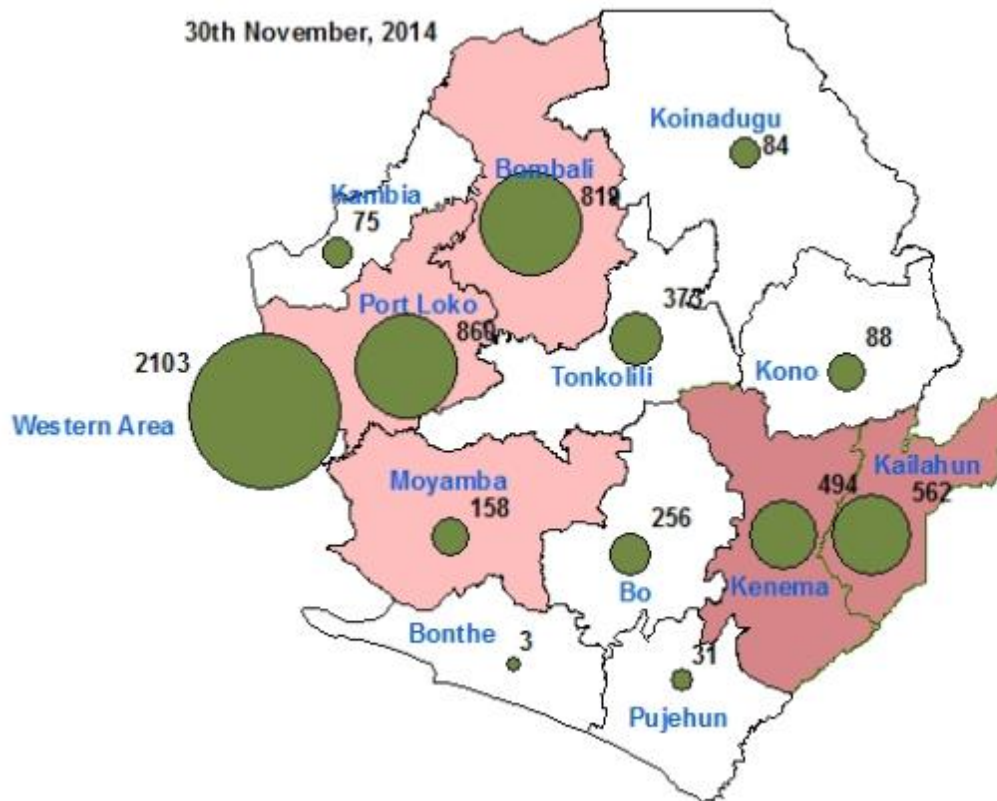
Ebola cases, cordon areas, end Sept, Sierra Leone



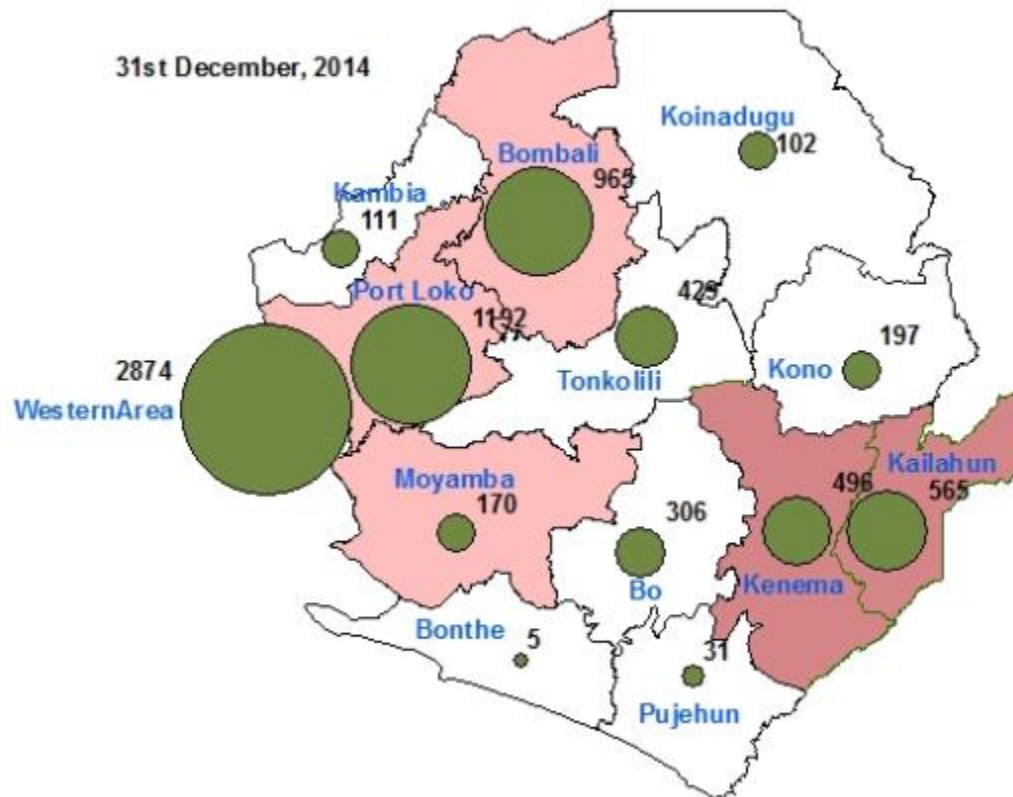
Ebola cases, cordon areas, end Oct, Sierra Leone



Ebola cases, cordon areas, end Nov, Sierra Leone



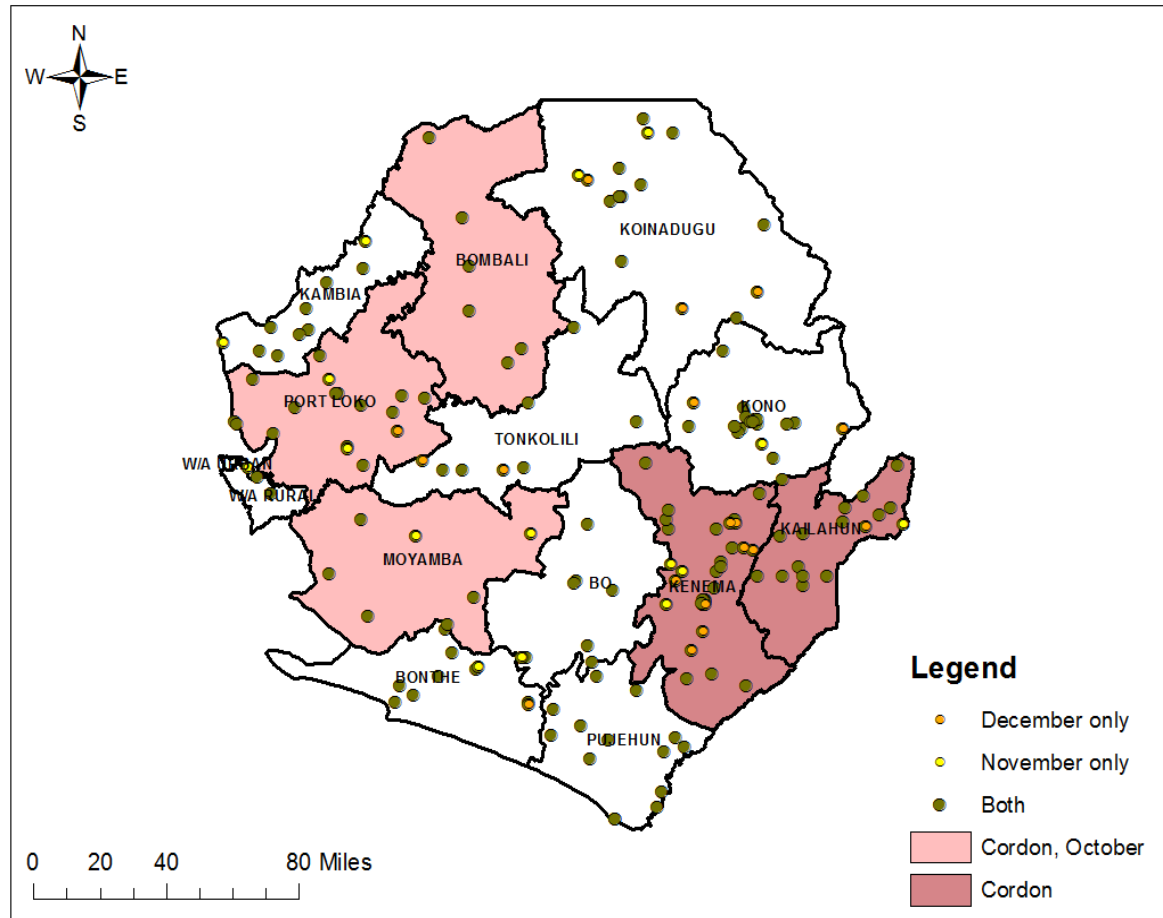
Ebola cases, cordon areas, end Dec, Sierra Leone



Data sources for assessing econ impact

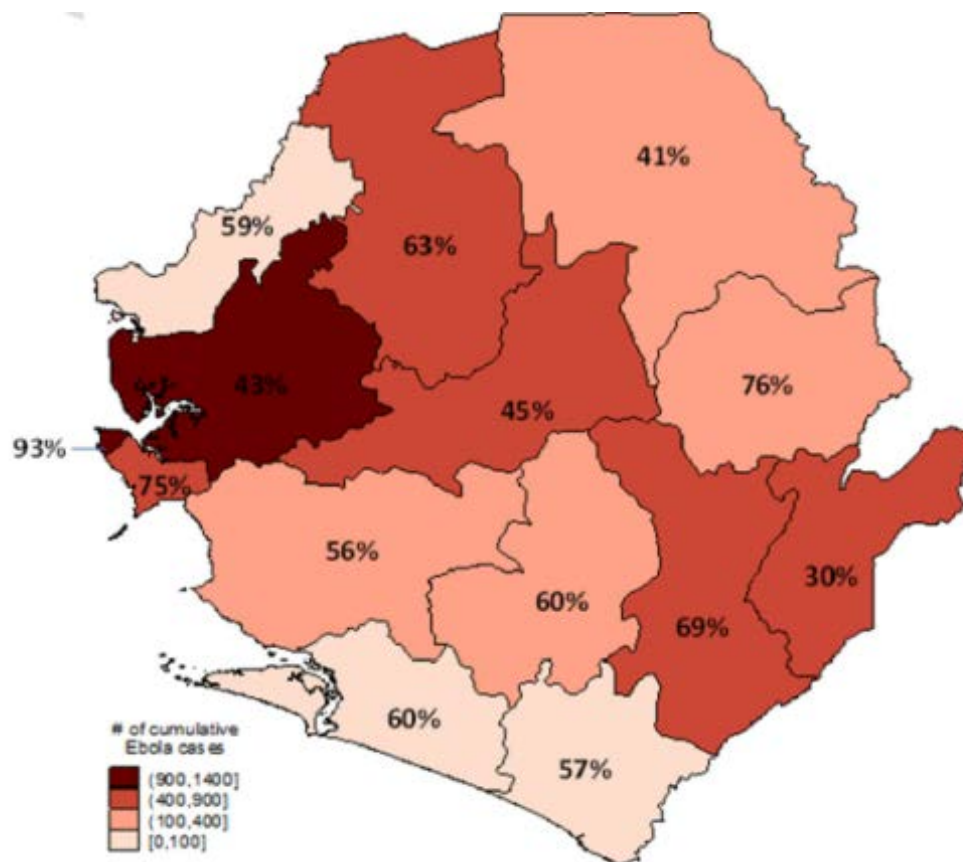
- Reactivated nationally representative cell phone survey of 185 rural markets (officials or traders)
 - Previously run 2011-12 for IGC roads project
 - Panel data for everywhere except for Freetown
- Aug '14 Labor force survey run by World Bank and SSL
- Nov 14 called phone numbers from LFS
 - 66% of original sample had cell phones (82% in urban areas)
 - 70% response rate (ie 46% overall), high for a cell phone survey
 - Qu on employment, agriculture, food security, health utilization, trust
 - Can compare to baseline either LFS or other national surveys

Call reps at 185 markets one-twice month



Source: Glennerster and Suri, 2015 www.theigc/country/sierra-leone

Cell coverage good in urban, not rural areas



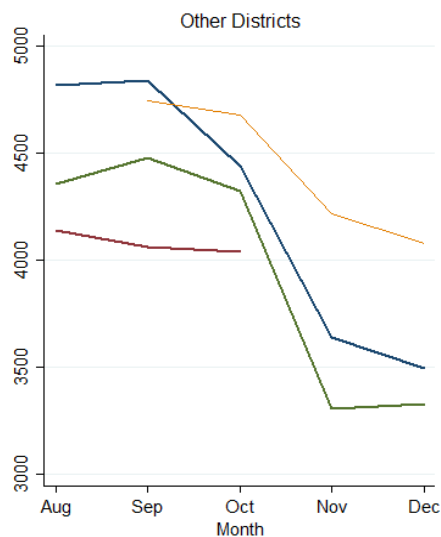
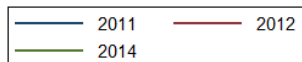
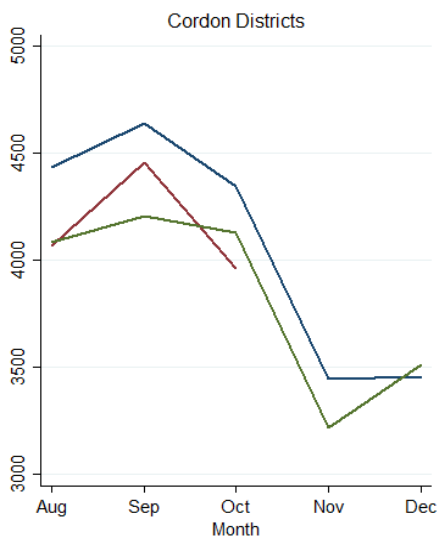
Source: Fu, Glennerster, Himelein, Rosas, and Suri, 2015

Overview of results on economic activity

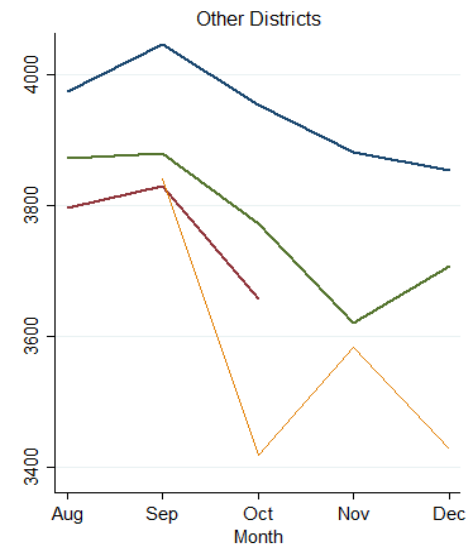
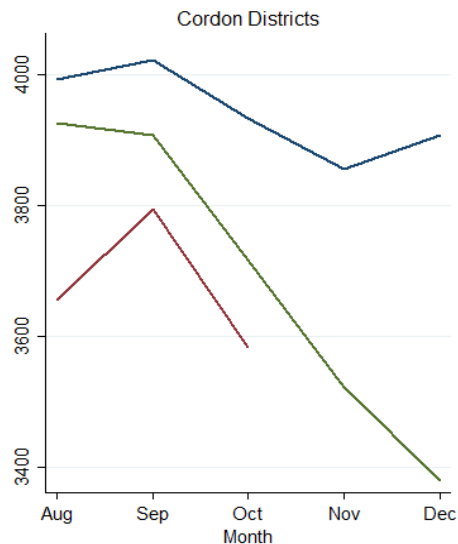
- Average food prices followed normal seasonal patterns
- Fewer agricultural traders for some months and products
- Unusually heavy rains delayed harvest
- Agricultural production unlikely to be badly hit
- Employment falls in urban areas
- Nonfarm HH enterprises in urban areas particularly hit
 - Restrictions on bars, transport, markets
 - Uncertainty reduces discretionary expenditure
- Food insecurity high, hard to tell how much due to Ebola

Average food prices are not higher than normal

Domestic Rice



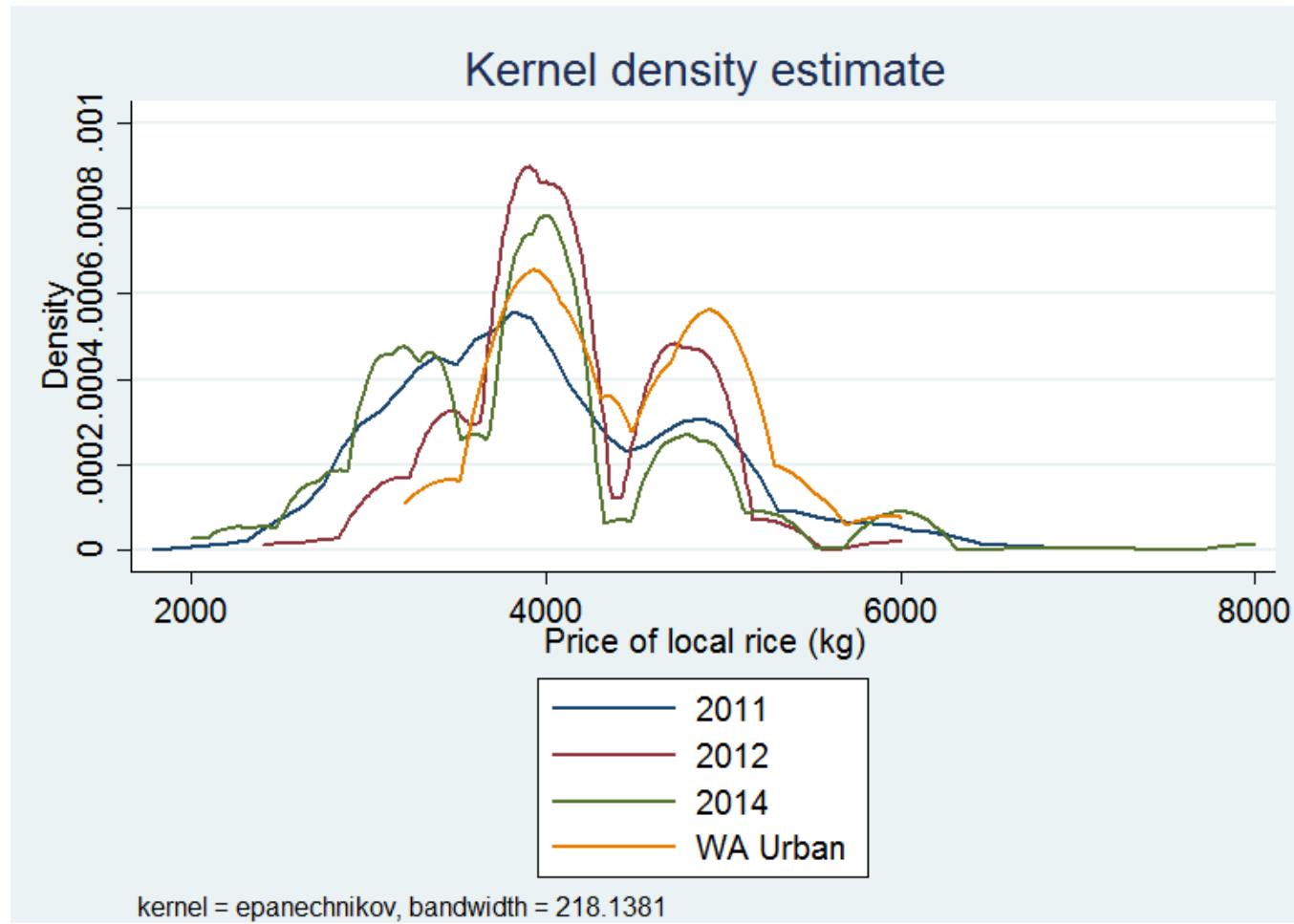
Imported Rice



Consistent with results data on rice prices from household survey

Source: Glennerster and Suri, 2015 www.theigc/country/sierra-leone

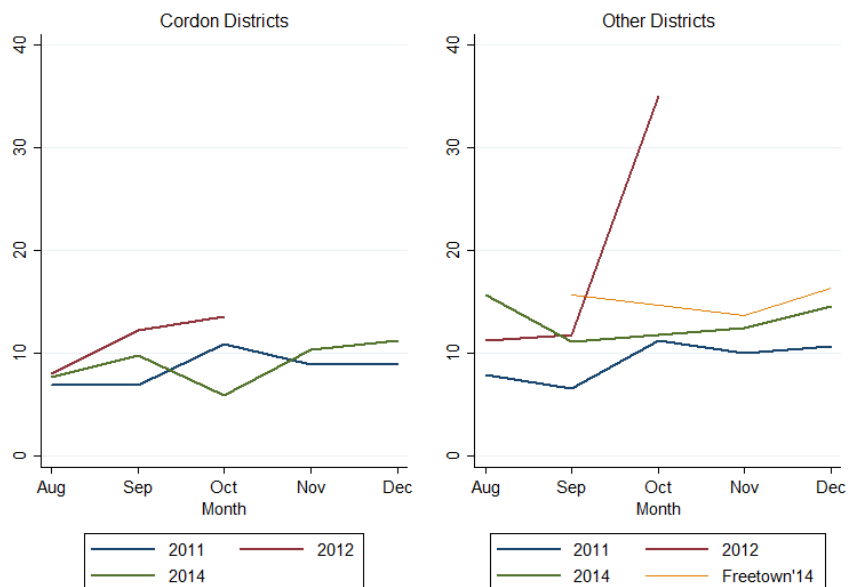
There are more price outliers than usual



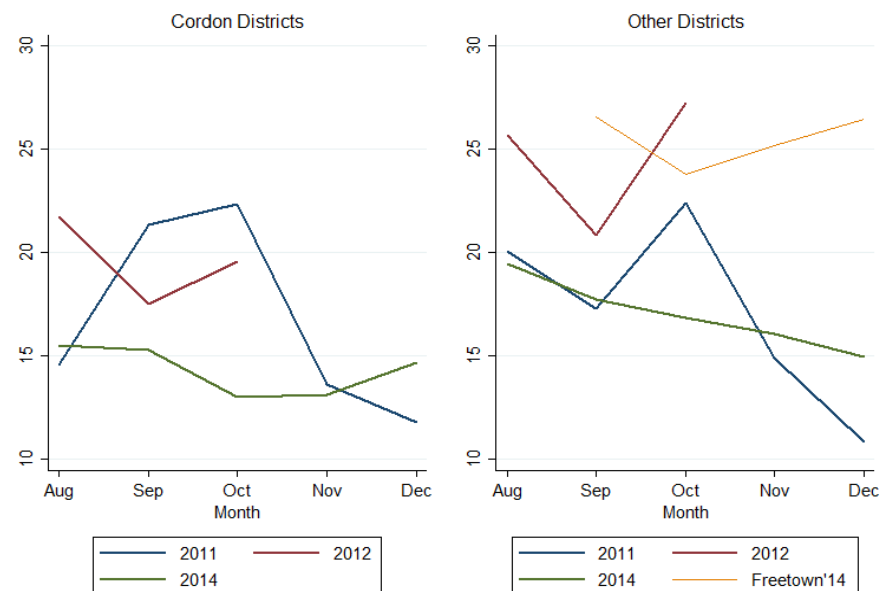
Source: Glennerster and Suri, 2015 www.theigc/country/sierra-leone

Number of traders: rice

Domestic Rice



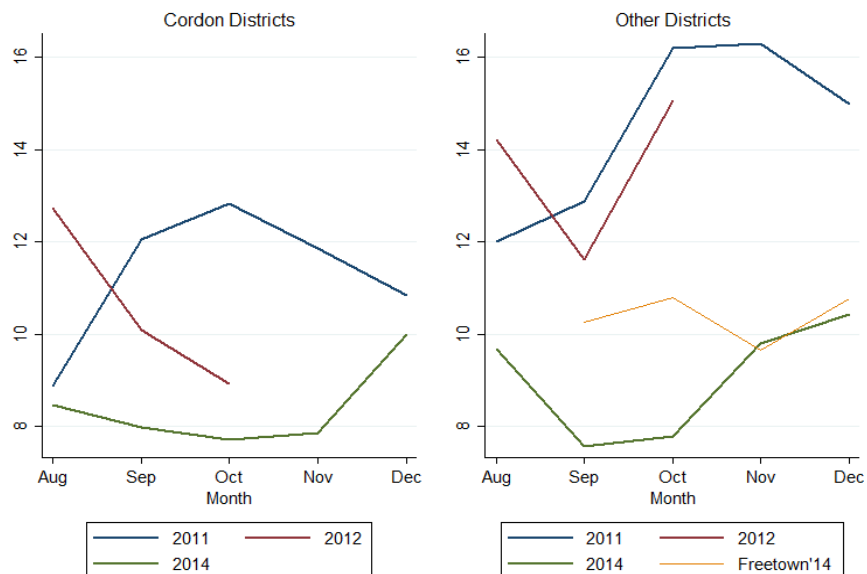
Imported Rice



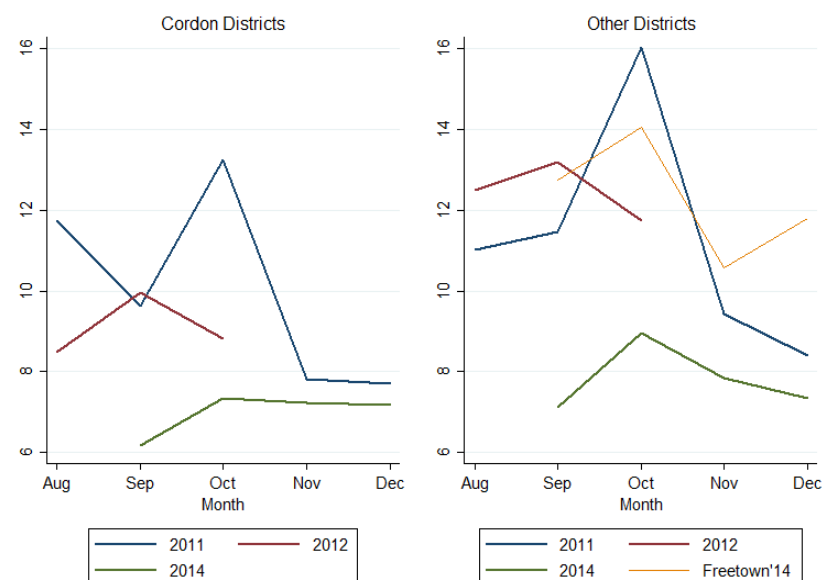
Source: Glennerster and Suri, 2015 www.theigc/country/sierra-leone

Number of traders: palm oil and gari

Palm oil (mansakay)



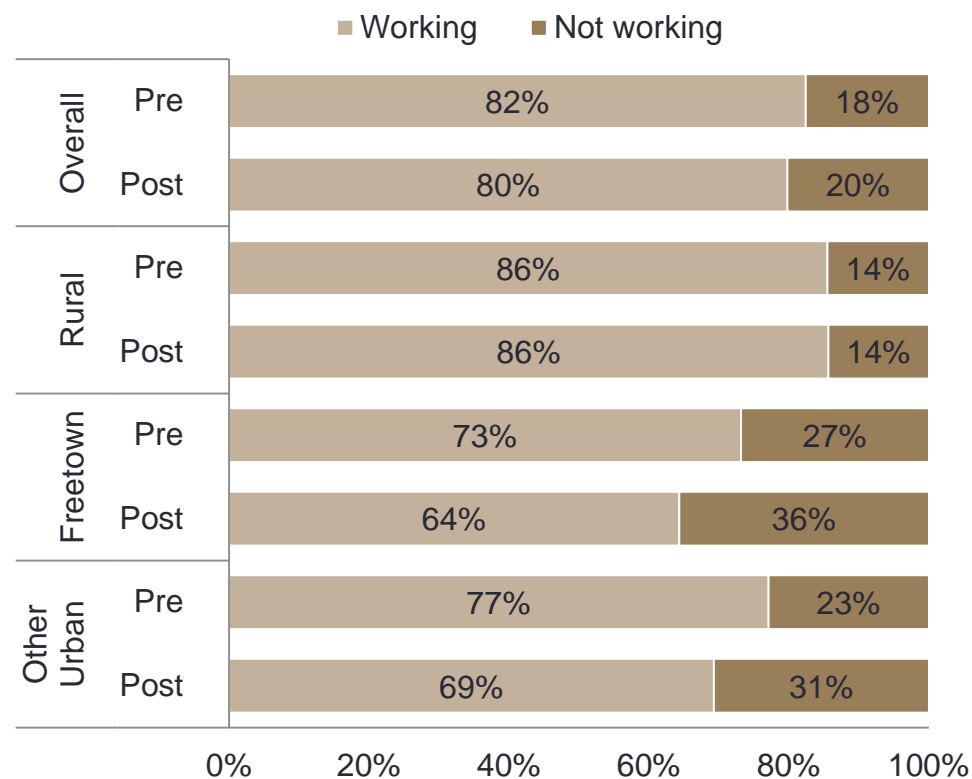
Gari (processed cassava)



Source: Glennerster and Suri, 2015 www.theigc/country/sierra-leone

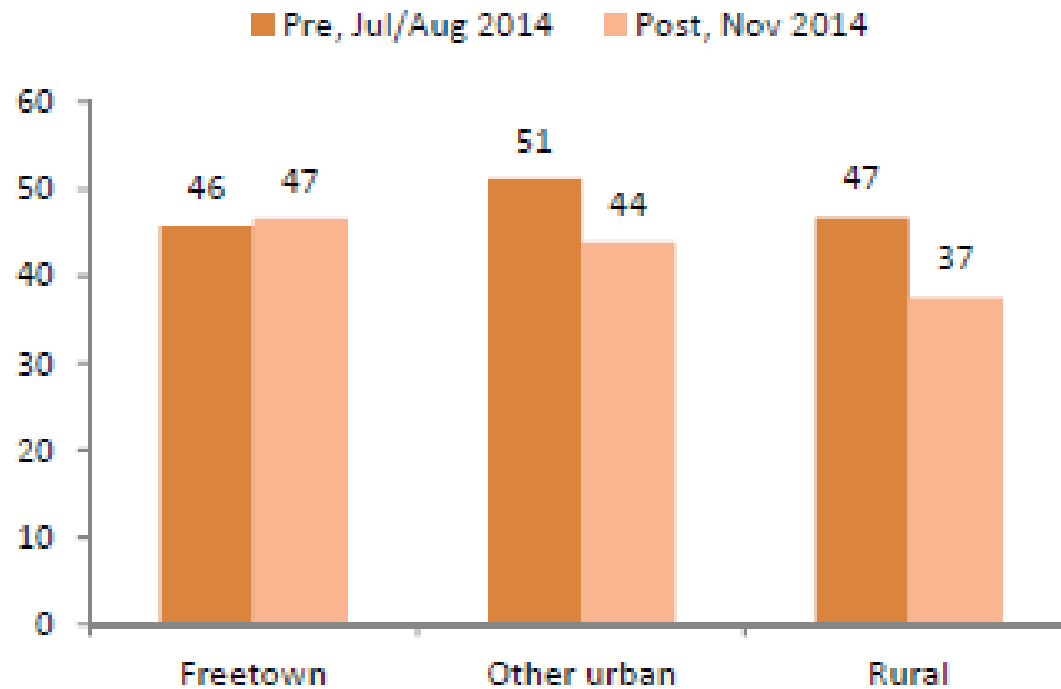
Decline in employment in urban areas

- Overall employment rates have not declined significantly
- **Large drop in urban areas (75% to 67%)**
- **Freetown has largest decline of 9pp**
- Employment in rural areas remained stable
- **Ebola cited as one of the main reasons for not working (by 20% of those not working)**
- No correlation between quarantined areas and magnitude of impact



Source: Fu, Glennerster, Himelein, Rosas, and Suri, 2015

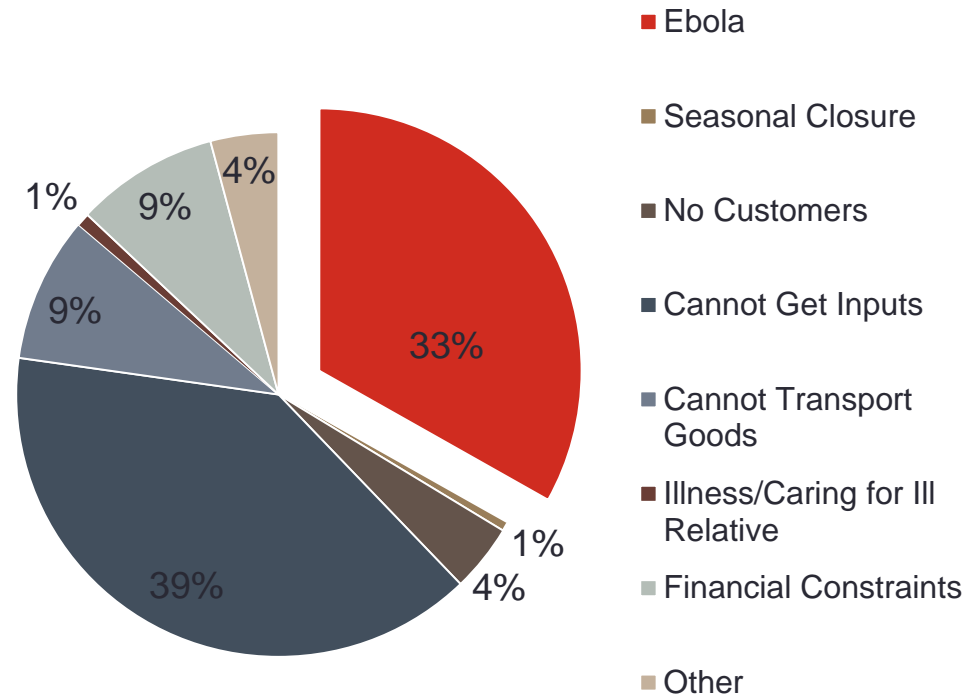
Decline in hours worked (for those in work) outside Freetown



Source: Fu, Glennerster, Himelein, Rosas, and Suri, 2015

Nonfarm HH enterprises among worse hit

- Percent of HH with non-farm business no longer operating rose from 4% to 12%
- 1/3 cite Ebola as reason their business no longer operates
- Average business revenues shrunk by 40%
- >90% urban women worked in non-farm HH enterprises pre-E



Source: Fu, Glennerster, Himelein, Rosas, and Suri, 2015

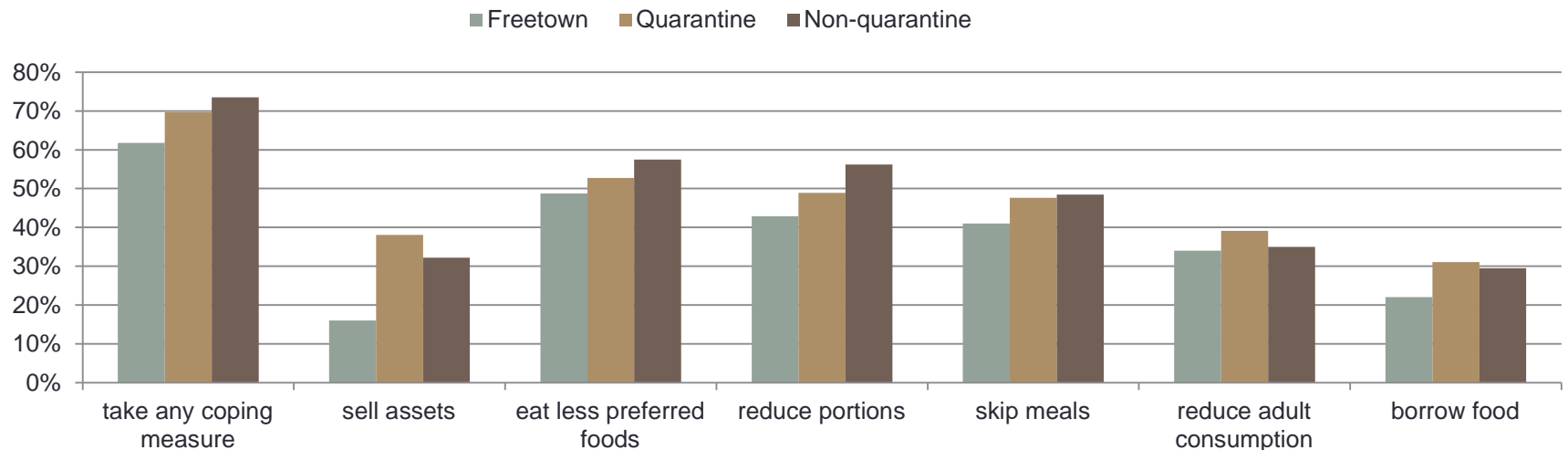
Agriculture hit more by late rain than Ebola

- Ebola coincided with the growing and harvest season
 - 93 percent of farming households grow rice
 - In Nov more than half had rice in field, mainly because of rain (72%), not Ebola
- More than half farming HH hired outside labor
- Some cite labor constraints for harvest
 - 14% labor constraints in HH vs. 6% labor constraint in community
 - no significant differences across quarantine areas
- Most farmers never sell rice, prod estimates unreliable
- No clear signs of probs in cocoa but sample small

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rice			clearing	planting					harvest			
Cassava	continuous harvesting											
Palm Oil				harvest								
Cocoa	harvest								harvest			

High food insecurity

- 71% took at least one measure to combat food insecurity in week prior to survey
- Food insecurity similar in cordon and noncordon areas
- Hard to determine role of Ebola as no good comparator for food insecurity at this time of year



What can be done to relieve econ burden?

- Confidence is key to helping the urban informal sector
 - Exchange rate stability
 - Reliability and transparency in gov pronouncement and actions
 - Recapitalizing microcredit organizations
- Reassess restrictions on movement, markets, schools, bars
- Food support may have helped keep prices stable
 - difficult to assess but prices now lower in cordon areas. Flooding?
- Check ability of cocoa farmers to sell
- Govt can usefully prime the pump if done effectively
 - E.g. use educated youth for remedial education support?



REBUILDING HEALTH CARE

Neither the IMF nor DFID caused Ebola crisis

- Kentikelenis et al in Lancet claimed that IMF programs had contributed to weak health care systems and Ebola crisis
 - IMF simply explains budget constraints govts face
 - Govts themselves decide how to spend, or whether to raises taxes
- Public Accounts Committee chided DFID for underinvesting in health infrastructure in Sierra Leone
 - Spending more on health in Sierra Leone is a good investment
 - DFID made a substantial contribution to major new health initiative in Sierra Leone, free health care for pregnant women and children <5
 - Not clear that costeffective investments would have helped stop Ebola (for which you need testing facilities, in patient beds etc)
 - Revealing contrast with Nigeria which stopped spread

Lessons from post war rebuilding

- Low pop density means universal clinic access hard
- Increasing numbers of staff not same as increasing presence

Indicator	2005	2006	2008
Fraction of functional clinics open at arrival	0.84	0.88	0.82
Average fraction of staff positions filled	0.59	0.63	0.71
Fraction of clinics with patients present	0.56	0.53	

Source: National Public Services Survey 2008, DecSec

Health care pre-Ebola

- Low expenditure on health care
 - WB estimates \$20 per capita public, \$80 private
- Free health care for pregnant women and <5s appears to have increased utilization for cost-effective interventions
- But local public clinics are focused almost entirely on maternal and child health and preventative health
 - Most cost effective investments in health esp for a poor country
 - But clinics not seen as place for men or nonchild bearing women
- Absenteeism important but declining
 - HH experiencing absenteeism at least once fell from 13% in 2011 to 6% in 2013

Possible ways forward on health

- Small nudges to get people back into clinics:
 - Small incentives for immunization could get people back into using clinics. More cost effective to attract parents to clinics than pay for (scarce) nurses to go house to house
- Abolish fees on all cost key drugs at local clinics
 - Govt only gets \$200k a year in fees
 - Paying for some drugs and not others causes confusion
- Effective national Community Health Worker program
 - Provide convenient local preventative care
 - Impossible to train new nurses quickly
 - Strengthen links between communities and clinics

Recruiting and training health workers

- Need to experiment with new ways to recruit, train and utilize health workers to fill a large gap rapidly
 - What roles don't need a fully qualified nurse?
 - What can be done by someone carefully trained on a narrow set of protocols?
- Recruitment is key
 - Zambia experiment with different ways to recruit health workers
 - Those attracted by potential for a career were better educated and worked much harder
 - Recruiting the right people had big impacts on the quality of service delivered. (Ashraf, Bandiera and Lee, 2014)

ADDITIONAL SLIDES

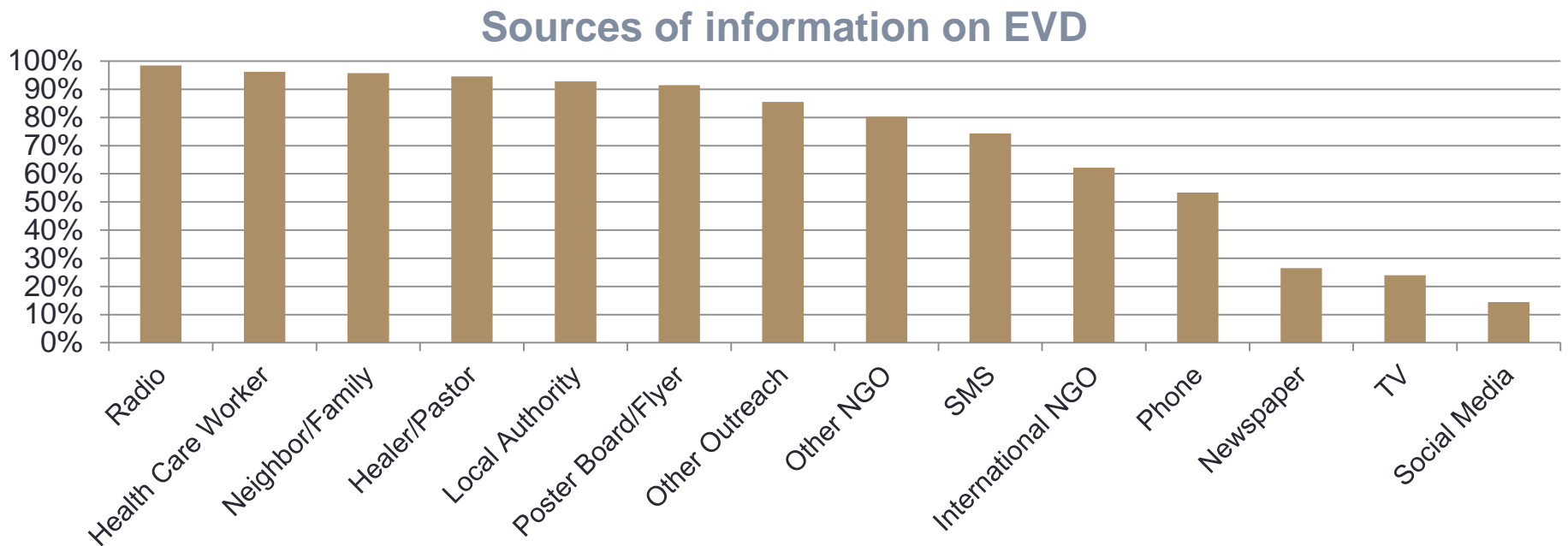
Cocoa impacts less certain

- Cocoa important for export and in districts first hit by Ebola
- Harvest ongoing (56% harvested)
 - Not less likely in cordon areas
- No clear evidence of impacts but...
- Sample size for cocoa is low
 - 130 growing HH, 60 selling HH
- Unlike rice where most is grown and consumed locally, more vulnerable to transport disruptions and fewer traders



All respondents had received info on Ebola

- Radio most common source of info, word of mouth also common
- SMS effective (75%) mechanism for reaching those with cell phones
- Nearly all (97%) of households reported they were visited during the 3-day lockdown in September



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Increasing utilization of clinics post Ebola

- Substantial evidence that small nudges (incentives) can have big impact on behavior, including preventative health
- Small incentives linked to immunization in other contexts to increase immunization rates dramatically
- More cost effective to have nurse at clinic with incentive than have the nurse do outreach to remote communities
 - Mothers willing to walk to get child immunized for small incentive
- This is particularly true when health workers are in short supply, as is tragically the case in West Africa post Ebola

Access to clinics over time in Sierra Leone

	Percent of households			
	2005 N=4051	2007 N=3996	2008 N=3972	2011 N=3977
Within 15 minutes	18	18	23	24
15 to 30 minutes	12	16	17	22
30 to 60 minutes	18	19	23	21
1 to 2 hours	18	24	23	21
Greater than 2 hours	32	21	14	12
Don't know	1	2	1	1

Source: National Public Services Survey 2011, DecSec