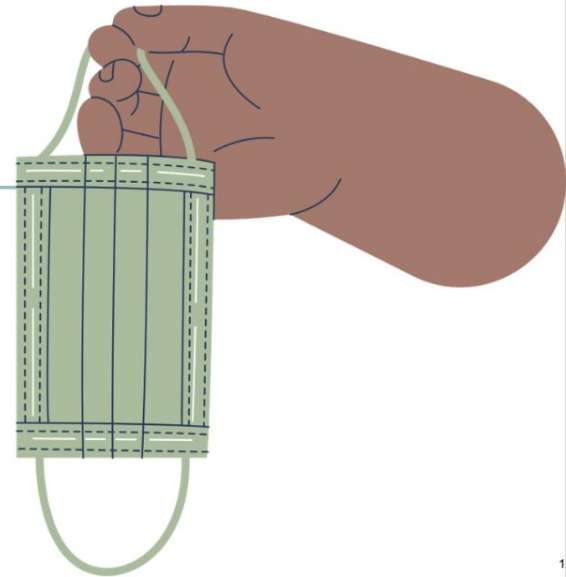


WEAR THE MASK UPDATE

Mass Media full integrated Campaign

3/25/2021



— Most important learnings

- **Community radio** campaign was successful. It improved:
 - Knowledge about the importance of masks (up 9 pp* for respondent says masks important & up 11 pp** for Centre says masks are important)
 - Knowledge about the importance of washing with soap or using sanitizer (up 8 pp**)
 - Intentions to wear masks (up 16 pp*)
 - Intentions to reprimand others for not wearing masks properly (up 14 pp**)
- **Digital ads** and game were successful in a lab setting.
 - Campaign ads improved
 - Intentions to reprimand others for not wearing a mask (up 16.7 pp*)
 - Intentions to wash hands by 11.5 pp ~
 - Gamifying the popular phone-based game Ludo King improved belief that masks are effective at preventing COVID-19 (up 12.3pp*)

*Significant at 0.10 level, ** Significant at 0.05 level

**Has the Community Radio campaign increased
KIPs around wearing masks?**

—

1

Community Radio Campaign

- 90-day campaign began from September 21
- First 30 days, focused only on Masks
 - Next 30 days, Masks + Social Distancing
 - Final 30 days, Masks + Social Distancing + Hand Hygiene
- Produce 2 **promos** per month of 2 – 3 mins each in local dialect
 - Broadcast promos 3 times/day
- Mask **Anthem** to be broadcast twice a day with RJ links based on material being shared
- 100% mask adherence campaign in 2 villages–slums-wards/month

Quasi experiment on Community Radio campaign

Research Questions:

- Does the community radio campaign have an impact on listeners' mask wearing or reprimanding?

Identification:

- 190 community radio stations were invited to participate in the program
- Active stations are considered “participating”
- Stations that are not active are considered “non-participating”. This is a conservative assumption as it includes non-participants PLUS drop outs.

Outcome variables:

- Cross-survey indicators
- Community-radio campaign specific indicators (see next slide)

Subjects and timing: 341 community radio listeners from 16 states. December 2020.

$$Y_i = \alpha + \beta_1(P_i) + I_i + S_i + \varepsilon_{ij} \quad (\text{Probit regressions})$$

Where Y= outcome, i=individual, j=station, P=participating station, I=individual controls, S=state

Input and Output Indicators

Common across all surveys

Metric	Description	Theory of Change
Campaign exposure	% who heard the slogan anywhere % heard the slogan on radio	Input
Exposure to anthem	% who correctly identified the next line in the anthem (after prompted with 2 lines)	Input
Knowledge/belief about mask wearing	% who say masks are <i>very</i> or <i>extremely effective</i> at preventing COVID-19 % who report that the central government says masks are important or very important	Knowledge & intention output
Knowledge about reprimanding	% who say it is important or very important to reprimand others for not wearing masks in public	Knowledge & intention output
Intention to wear masks	% who are “likely or extremely likely” to wear a mask in public	Knowledge & intention output
Intention to wear properly	% who are “unlikely or extremely unlikely” to pull down their masks in public	Knowledge & intention output
Intention to reprimand	% who are likely or extremely likely to reprimand someone for not wearing a mask in public	Knowledge & intention output
Intention to reprimand for not wearing the mask correctly	% who are likely or extremely likely to reprimand someone for not wearing a mask correctly	Knowledge & intention output
Attitude about masks	% who don’t wear masks because they are “not scared of covid” or “are strong”	Knowledge & intention output

Outcomes and assumptions

Metric	Description	Theory of Change
Practice: Time spent wearing masks	% who wore masks for all or most of the time while out the previous day	Outcome
Practice: Time spent wearing masks <i>correctly</i>	% spent "most or all of the time" wearing masks correctly in public	Outcome
Practice: Reprimanding for not wearing masks	% who reprimanded someone at least once in the last 3 days for not wearing a mask in public	Outcome
Practice: Reprimanding for not wearing masks <i>correctly</i>	% who reprimanded someone at least once in the last 3 days for not wearing a mask correctly in public	Outcome
Pride in neighbourhood's response to pandemic	% who are proud of their neighbourhood's response to the pandemic	CR Assumption
Threat to life perception	% perceive coronavirus to be "very or extremely serious" threat to their lives	Assumption

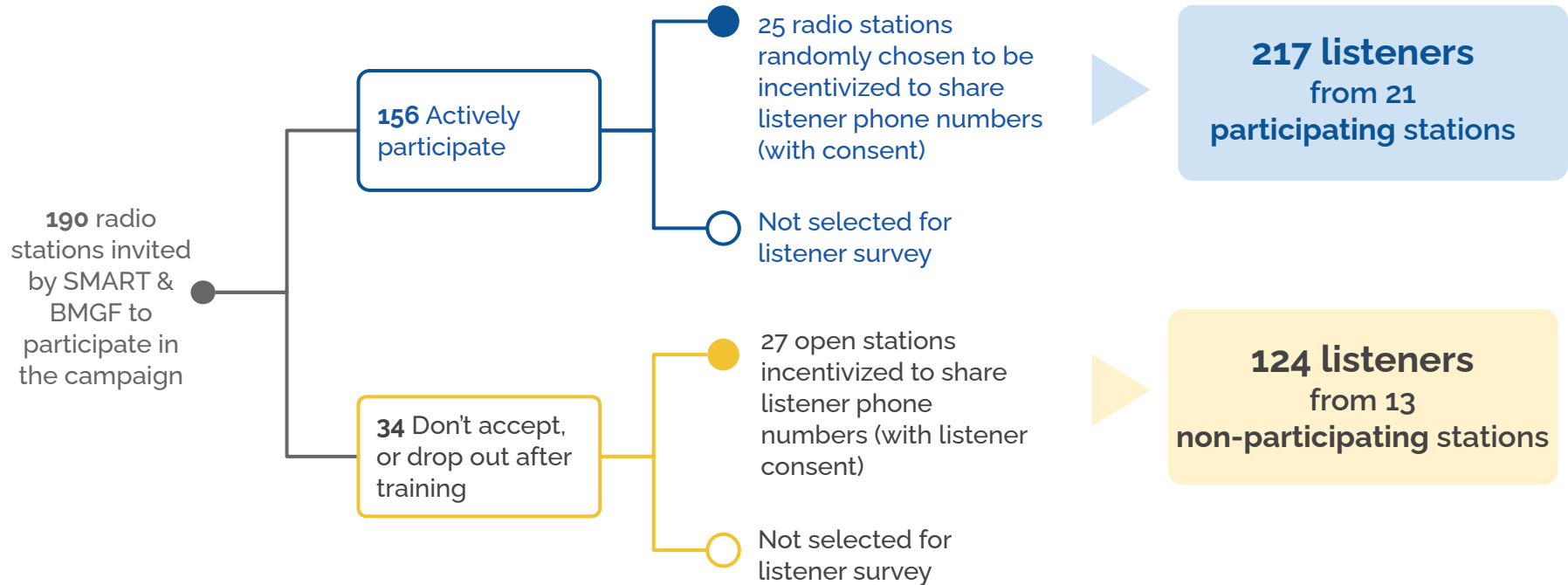
Additional indicators for Community Radio campaign

Metric	Description	Theory of Change
Saw campaign posters	% respondents who have seen posters in their neighbourhood explaining ways to protect against coronavirus	Campaign output
Handwashing	% respondents who answered 'washing with soap or using a sanitizer' when asked how they could protect themselves from the Coronavirus	Campaign output
Social Distancing	% respondents who answered 'social distancing' when asked how they could protect themselves from the Coronavirus	Campaign output
Neighborhood pride	% respondents who are proud of their community's response to the pandemic	Assumption

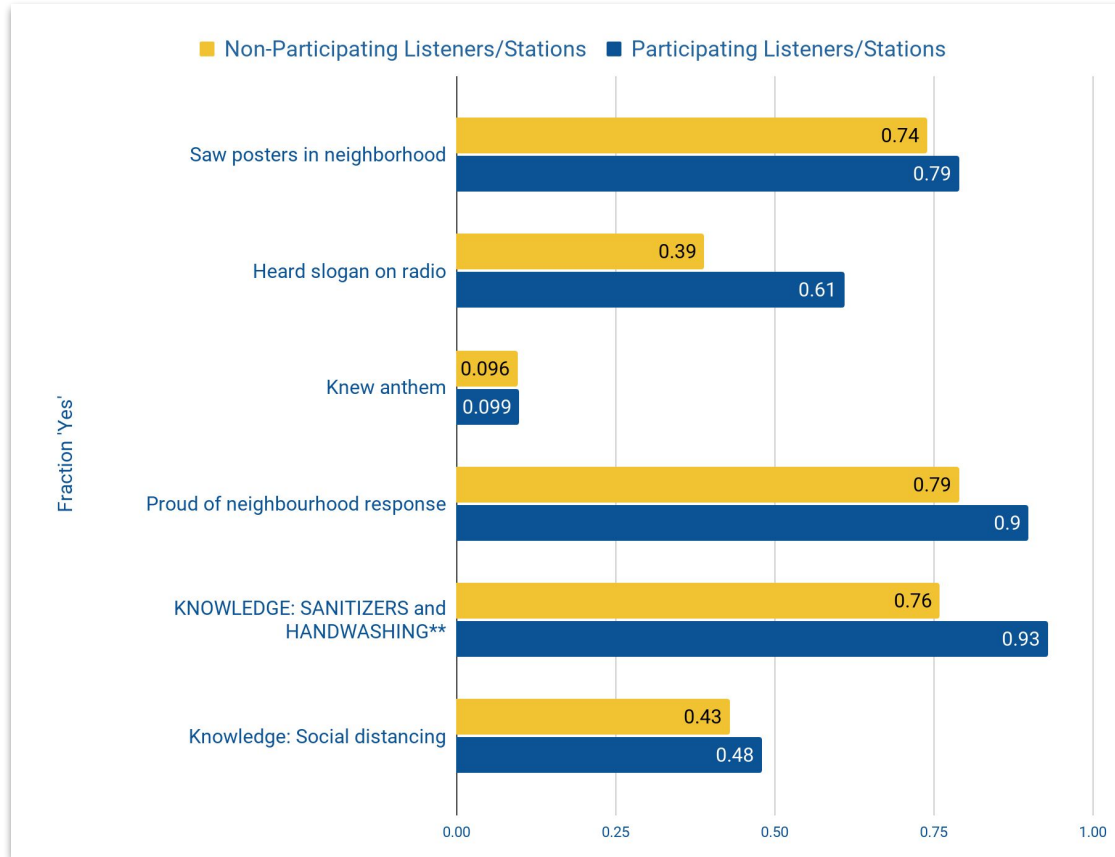
Ipsos conducted phone surveys with community radio station listeners across 16 states in local languages.

They asked the same KIP questions posed to the Urban and Rural samples, along with these Community Radio-specific questions.

The Community Radio (CR) evaluation is quasi-experimental

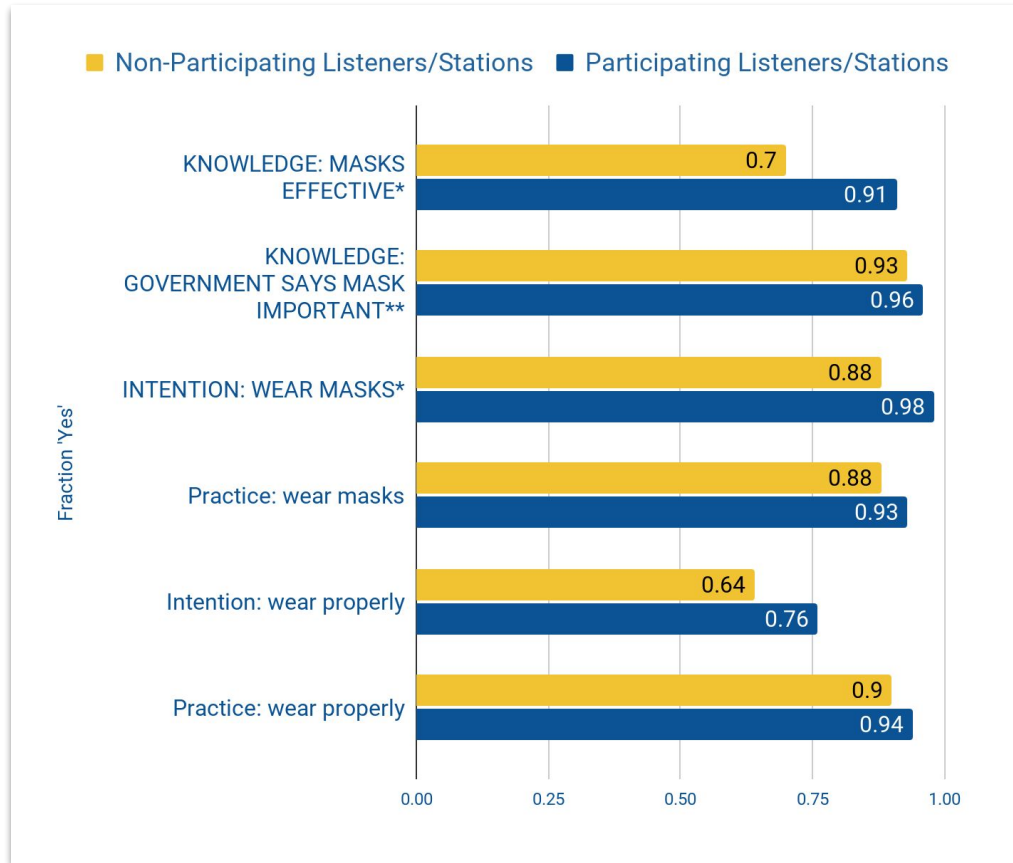


Community Radio: Output and Other Protection Results



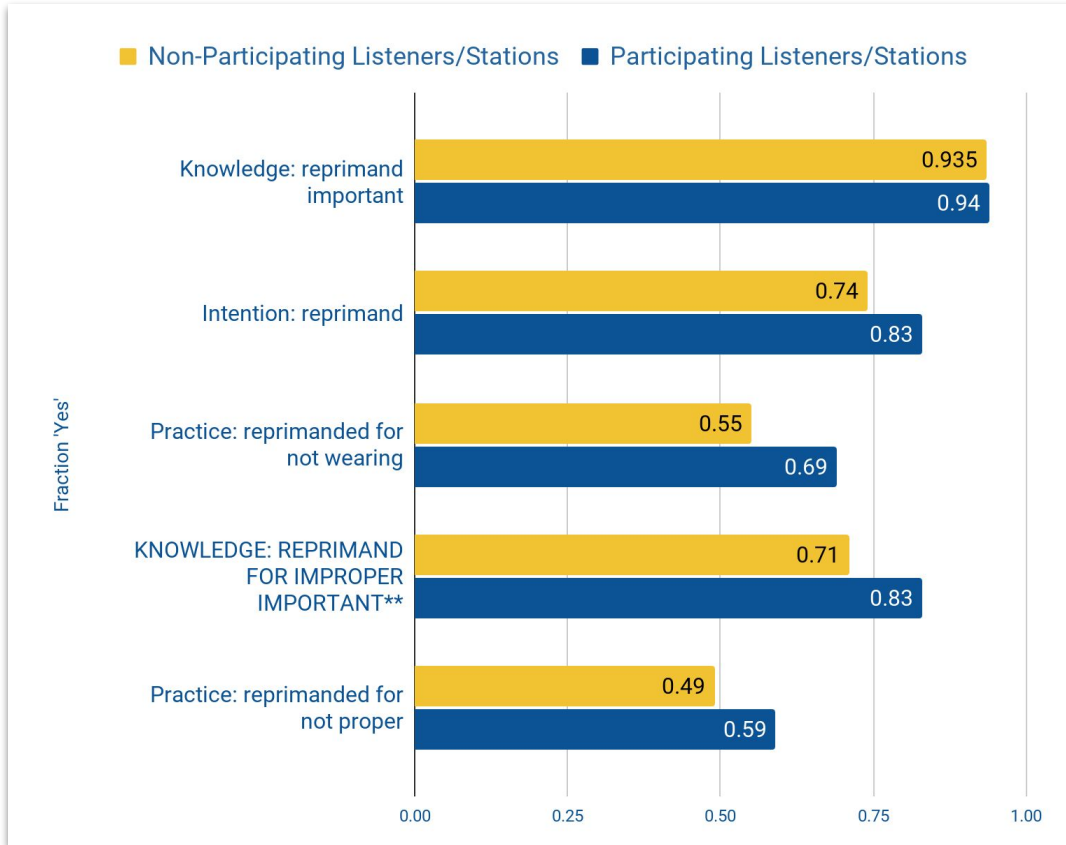
The community radio campaign increased knowledge about the importance of handwashing and using sanitizers - a secondary goal of the 12-week campaign.

Community Radio: Mask Results



The campaign increased knowledge about masks & intentions to wear masks.

Community Radio: Reprimanding Results



The community radio campaign increased knowledge about reprimanding others for not properly wearing a mask.

Further evidence on community radio

Are any campaigns associated with slower growth of
COVID-19 in infections?

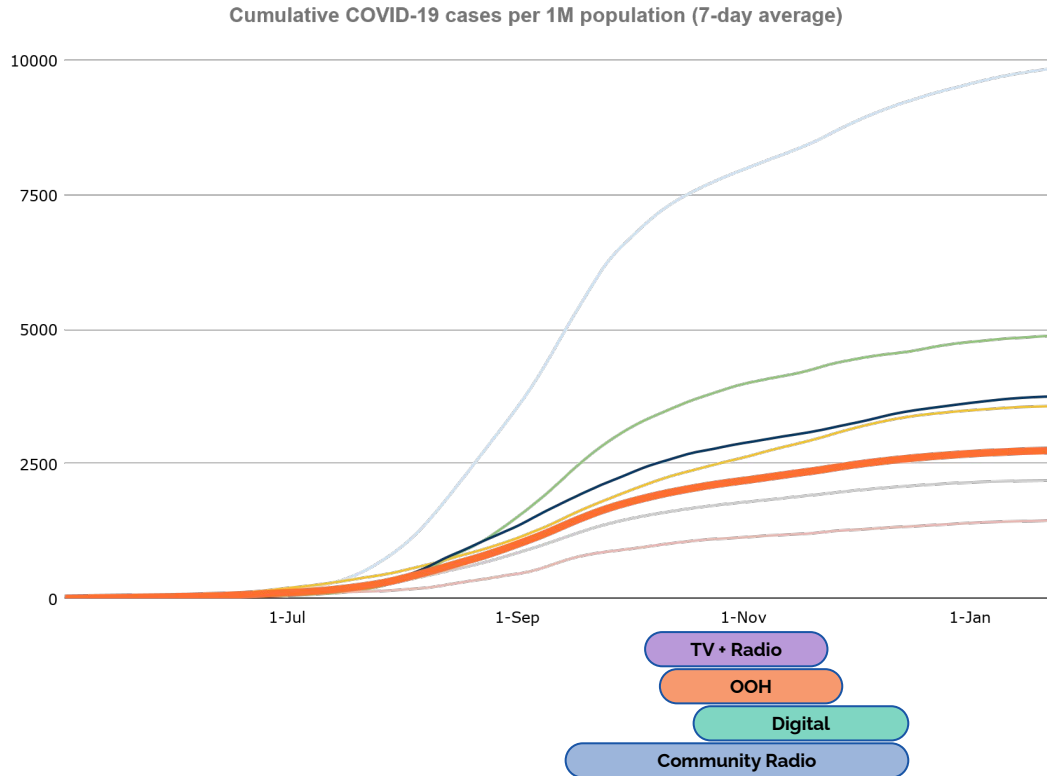


2

— Infection modelling

- We look for impact on **weekly cumulative cases** (confirmed infections).
- Cumulative infections are “count” data with a right skew. Because of overdispersion, they don't meet the assumption for the more common Poisson regression model.
- We choose a **mixed effects negative binomial model**. Follows the best methods for studying COVID-19 infections:
 - [Karmakar et al.](#) and [Chan et al.](#)
- Two analyses:
 - UP district level (impact of “extra” campaigns)
 - all-India (impact of TV spots)

Approach 1 - Variation in campaigns in UP



	# Districts
UP State	75
TV & Online	58
TV, Online & Commercial Radio	1
TV, Online & OOH	1
TV, Online & Community Radio	10
TV, Online, Commercial & OOH	2
All Channels	3

Approach 1 - Associating infection growth slowdown in UP with “additional” campaign channels

Several activations were undertaken in UP in addition to the national TV and digital campaigns, including OOH in smaller towns, commercial radio, and community radio. **What's the impact of additional, more local activations?**

- Every district has a “cluster” of interventions. The whole district is assumed to have exposure to the cluster.
- We estimate the difference in infections when adding more activations on top of the national campaigns.
- Controls listed on next slide.
- This analysis ends before Diwali, Only community radio was still running at the end of the study period.

$$\log(Y_{dt}) = \alpha + \beta_1 C_d \times P \times W + C_d + W_{dt} + P_t + I_d + L_t + H_t + u_d + \varepsilon_{dt}$$

$$Y_{dt} = e^{\alpha + \beta_1 C_d \times P \times W + C_d + W_{dt} + P_t + I_d + L_t + H_t + u_d + \varepsilon_{dt}}$$

Y= infections per million population, C= campaign cluster, P= campaign period, W=week, I=vector of demographic controls, L=lockdown, H=holiday, d=district, t=day

Two infection models cover different locations

	1. Uttar Pradesh	2. All-India
Time Period	01 Sep - 14 Nov, 2020	01 Sep - 31 Dec, 2020
Outcome	Weekly Cumulative Cases	Weekly Cumulative Cases
Treatment	Campaign cluster*	Number of TV Spots
Controls: Holidays	Dussehra indicator Diwali indicator	Dussehra indicator Diwali indicator Christmas indicator
Controls: Demographics	% Hindu Sex ratio Urban District Dummy	
Controls: Time effects	Time (in wks) Campaign period indicator	Time (in wks) Time Trend (Post 15 Sep)
Controls: Geopolitical	District-level Random Intercept District-level Random Slope Lockdown index (Oxford tracker)	Lockdown index (Oxford tracker)

* Base cluster: TV Only

Approach 1 results - Districts with radio campaigns reduced cases more than the base category districts

For every 1000 cases* added weekly in "Base category" districts, only 985 were added in the TV, Online & Commercial radio district.

4.5%
faster growth in
infections

For a conservative estimate, use the upper bound of the confidence interval. Eg., for every 1000 cases* added weekly in "Base category" districts, only 961 were added in "All Campaigns" districts.

TV & Online
58 districts

Base category

TV, Online & Commercial Radio
1 district

Incidence Rate
Ratio= 0.985*
[0.973, 0.997]

1.5%
slower growth in
infections

TV, Online & OOH
1 district

IRR=1.045***
[1.033, 1.058]

4.5%
faster growth in
infections

TV, Online & Community Radio
10 districts

IRR=0.925***
[0.901, 0.950]

7.5%
slower growth in
infections

TV, Online, Commercial Radio & OOH
2 districts

IRR=1.018
[0.932, 1.113]

All Campaigns
3 districts

IRR=0.920***
[0.881, 0.961]

8%
slower growth in
infections