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Authors

Arnold, Benjamin F
Galiani, Sebastian
Ram, Pavani K
et al.

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TITLE

Optimal recall period for caregiver-reported illness in risk factor and intervention studies: a multicountry study

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AUTHORS

Benjamin F. Arnold,* Sebastian Galiani, Pavani K. Ram, Alan E. Hubbard, Bertha Briceño, Paul J. Gertler, John M. Colford, Jr.

* Corresponding author

Benjamin F. Arnold, PhD

Division of Epidemiology

School of Public Health

University of California, Berkeley

101 Haviland Hall, MC7538

Berkeley, CA 94720

benarnold@berkeley.edu

+1 (510) 214 - 2787

RUNNING HEAD

Optimal recall for caregiver-reported illness

ABBREVIATIONS

PR, Prevalence Ratio

MSE, Mean Squared Error

ABSTRACT

Many community-based studies of acute child illness rely on cases reported by caregivers. Prior investigations have noted a reporting bias when longer illness recall periods are used. Recall periods longer than 2-3 days have been discouraged to minimize this reporting bias. This study's objective was to determine the optimal recall period for illness measurement when accounting for both bias and variance. Using data from 12,191 children < 24 months old collected in 2008-2009 from Himachal Pradesh (India), Madhya Pradesh (India), Indonesia, Peru, and Senegal, the authors calculated bias, variance and mean squared error for estimates of the prevalence ratio between groups defined by anemia, stunting, and underweight status to identify optimal recall periods for caregiver-reported diarrhea, cough and fever. There was little bias in the prevalence ratio using a 7-day recall period (<10% in 35 of 45 scenarios), and the mean squared error was usually minimized with recall periods of ≥ 6 days. Shortening the recall period from 7 to 2 days required sample size increases of 52–92% (diarrhea), 47–61% (cough), and 102–206% (fever). In contrast to the current practice of using 2-day recall periods, this work suggests that studies should measure caregiver-reported illness with a 7-day recall period.

MeSH KEY WORDS:

Survey Methodology; Outcomes Assessment; Outcome Measurement Errors, Bias, Diarrhea, Cough, Fever

Community-based epidemiologic studies often use caregiver-reported symptoms to measure acute cases of diarrhea, respiratory infections or other child illnesses because it is often impractical to use more objective measures. For example, a case of diarrhea is often defined as 3 or more loose or watery stools in 24 hours or any loose stool with blood (1), and a case of acute lower respiratory infection is defined using World Health Organization guidelines that include cough or difficulty breathing with a raised respiratory rate (2). Symptom-based definitions have reasonably good sensitivity and specificity compared to medical diagnosis over recall periods < 14 days, but are recognized to be imperfect (see (3) for a summary of articles and (4,5) for validation methods).

One problem with symptom-based case definitions is that they are subject to reporting errors. Reporting errors can result from failure to remember illness; “forward telescoping” illness episodes that occurred before the recall period into the recall period; confusion that results from poor-quality questionnaires; and, poor interviewer-participant communication (6–8). When interviewers ask caregivers about their child’s symptoms retrospectively, most studies show a consistent pattern: symptom reporting begins to decline after 2–3 days (9–16). Reporting decline can be lower for more severe episodes of diarrhea (10,16) and when the questions apply to younger children (16).

Although studies cannot identify whether the reporting decline seen with longer recall periods is due to over-reporting of symptoms close to the interview or under-reporting of symptoms further from the interview, investigators generally assume that respondents forget about illness in the past; measures over the previous 2–3 days, therefore, are believed to be unbiased measures of disease (10,13,15,16). Studies that have provided guidance on optimal

recall periods for illness symptoms have focused on recall periods that minimize measurement bias, and have discouraged the use of recall periods longer than 2–3 days (13,15,16).

An exclusive focus on bias in caregiver reported illness fails to account for the variance of parameters of interest in risk factor and intervention studies. The choice of recall period used for outcomes to estimate a quantity like the prevalence ratio (PR) should depend on both the bias and variance of estimates generated with different recall periods. In many applications, a slightly biased but more precise estimate is preferable to an unbiased but imprecise estimate because on average it will be more accurate: this is the bias-variance trade-off often used to select between estimators (17,18). (see (19) for an example in the context of recall errors.) The use of longer symptom recall periods to measure illness increases recall error, but it also increases the number of cases detected and, with period prevalence measures, reduces outcome variability over the measurement period (20). Higher outcome prevalence and lower variability can reduce the required study size and related costs. In the context of symptom recall, Schmidt et al. (20) noted the increased statistical power and bias due to measurement error with longer recall periods, but did not provide empirically-based guidance for appropriate recall periods given the implied bias-variance tradeoff.

The objective of this study was to determine the optimal recall period for caregiver-reported illness measurement while accounting for both bias and variance. We estimated the PR between groups using recall periods of 1 to 14 days, and used a function that combines bias and variance – the mean squared error (MSE) – to identify recall periods with the best combination of bias and variance. We based our calculations on data from five cohorts that include 12,191 children < 24 months old. The cohorts and symptoms we considered (diarrhea, persistent cough, fever) capture a wide range of prevalence, duration and reporting conditions. Although this article focuses on

empirical estimates and power calculations based on the PR, we extend these results to the risk difference in the Web Appendix. We provide specific guidance for investigators on appropriate recall periods with which to measure caregiver-reported morbidity when the outcomes are used to compare groups, as is commonly done in an intervention study. We expect that the results will apply not only to studies conducted in low-income countries from which these examples are drawn, but broadly in the many situations where caregiver-reported illness is the outcome.

MATERIALS AND METHODS

Study population and outcome measurement

The cohorts were enrolled as part of a multicountry study of the World Bank's Water and Sanitation Program Global Scaling Up Initiatives in rural sanitation and handwashing promotion. Households were randomly sampled within rural villages from a list of all households with at least one child < 24 months. The cohorts were distributed over wide geographic areas and include a large number of rural sampling clusters (usually villages): 80 (Himachal Pradesh, India: India HP), 80 (Madhya Pradesh, India: India MP), 160 (Indonesia), 211 (Peru), and 110 (Senegal). The study baseline reports include additional details of the study design and sample characteristics (21–24).

This analysis used data from the baseline surveys, collected in 2008 and 2009, in which interviewers asked caregivers about their child's health in a household interview using a daily calendar that included the 14 days before the interview (25) ([Web Appendix 1](#)). The calendar included symptoms of gastrointestinal illness (stomach cramps, nausea, vomiting, 3 or more stools in 24 hours, loose or watery stools, blood or mucus in the stool), respiratory illness

(constant cough, congestion/coryza), non-specific symptoms (fever, refused to eat), and other symptoms unrelated to the interventions (scrapes/abrasions, itchy skin or scalp). We classified a child as ill with diarrhea if the child had 3 or more loose or watery stools in 24 hours or 1 or more stools with blood or mucus (1). Interviewers asked caregivers about constant cough and fever using common terms in the local language. Interviewers asked caregivers to estimate the start date of each symptom (25). Field teams used identical symptom calendars in all five cohorts. All research was reviewed and approved by the Western Institutional Review Board in Olympia, WA, USA, and all caregivers provided informed consent.

From the symptom calendars we abstracted two common measures of disease: daily prevalence, defined as the number of days ill divided by the total days of observation (each survey contributes multiple measurements per child, one for each day of recall), and period prevalence, in which a child is classified as ill if he/she had the symptom at anytime during the recall period (one measurement per survey, whatever the recall period).

Overview of the analysis

Here, we outline the three main steps of the analysis; the sections below include the details and rationale for each step. First, we chose three child characteristics (anemic, stunted, underweight) to stratify the data and compare illness prevalence between children with or without each characteristic. For each risk factor, we calculated the PR using recall periods of between 1 and 14 days. Second, we calculated bias in the PR estimated with each recall period by assuming that the estimates based on a 2-day recall period were unbiased. Third, we calculated the variance and mean squared error of the estimators by bootstrapping the datasets, and re-estimating the PR in each iteration. We repeated our analysis in each cohort. We

conducted our analysis using R version 2.13.1 (www.R-project.org, Vienna, Austria) and Stata version 12 (StataCorp, College Station, TX). Replication files are available from the authors.

Choice of risk factors and parameter of interest

We chose three dichotomous characteristics to use as risk factors for illness, and we compared illness risk between groups: anemic ($Hb < 110 \text{ g/l}$) versus not anemic, stunted (height-for-age Z-score < -2) versus not stunted, and underweight (weight-for-age Z-score < -2) versus not underweight. We chose these risk factors to demonstrate the effect of recall period on the PR because we hypothesized that children who were anemic, stunted, or underweight would be at elevated risk for diarrhea, cough, and fever (26).

We chose the PR as the parameter of interest because it is commonly estimated in observational studies and randomized controlled trials (27). For episodic diseases with short mean durations, the prevalence over a 1–14 day period (a restricted risk period) is a reasonable estimate of risk over the period, and the PR estimates the risk ratio (28).

The PR can be defined in terms of the observed data with different recall periods. Let $Y(t)$ be a binary indicator variable for reported daily illness (e.g., diarrhea), where t indexes the day of recall before the interview ($t = 1, 2, \dots, 14$). The outcome definition depends on the choice of daily prevalence versus period prevalence, and on recall period length. Period prevalence outcomes are calculated as: $Y^*(T) = \max[Y(1), Y(2), \dots, Y(T)]$, which is a binary indicator that the individual was ill on any day back to day T . Daily prevalence outcomes simply include multiple observations for each individual back to day T : $\bar{Y}(T) = [Y(1), Y(2), \dots, Y(T)]$. Let X be a binary risk factor (e.g., 1=anemic, 0=not anemic), or similarly, a binary indicator of intervention

status (1=treated, 0=untreated). We can then define θ_T , which estimates PR over recall period T using, for example, the period prevalence ratio:

$$(1) \quad \theta_T = E[Y^*(T) | X = 1] / E[Y^*(T) | X = 0]$$

Common estimators for θ_T include a nonparametric ratio of means (used in this analysis) or a log-binomial regression model (29). In [Web Appendix 2](#) we show that controlling for possible confounders with log-binomial regression does not change our results.

Analysis of the bias-variance tradeoff

We investigated the tradeoff between bias and variance in the context of different recall periods by comparing PR estimates based on different recall periods (θ_T) using the Mean Squared Error (MSE). The MSE is a standard objective criteria often used to select estimators with good overall accuracy based on bias and variance (17,18). In this analysis, we assumed that the PR estimated with a 2-day recall period was an unbiased estimate of the true PR (i.e., $\theta = \hat{\theta}_2$) because, consistent with earlier studies (9–16), there was little evidence of symptom under-reporting until after day 2 ([Figure 1](#)). The MSE for each recall period T is then defined as:

$$(2) \quad MSE(\hat{\theta}_T) = E[(\hat{\theta}_T - \theta)^2]$$

The MSE can be decomposed into separate terms for bias and variance (17).

$$(3) \quad MSE(\hat{\theta}_T) = E[(\hat{\theta}_T - \theta)^2] + E[(\hat{\theta}_T - E[\hat{\theta}_T])^2] = Bias(\hat{\theta}_T, \theta)^2 + Var(\hat{\theta}_T)$$

To calculate the variance and MSE of $\hat{\theta}_T$ for each recall period, we used a clustered bootstrap that resampled independent village clusters with replacement (following the original sampling

design) and 10,000 iterations. In each bootstrap iteration, we re-estimated the PR of each risk factor over each of the 14 recall periods ($\hat{\theta}_1, \dots, \hat{\theta}_{14}$) using equation (1). We used the standard deviation of the bootstrapped PR estimates to calculate the standard error for the PR estimated with each recall period.

The comparison of MSE values between different estimates is only sensible for estimates of the same quantity, θ . In general, the PR estimated with different recall periods estimates inherently different quantities if using period prevalence; however, the PR is approximately constant over recall periods of up to 14 days under typical incidence and duration conditions observed for caregiver-reported illness ([Web Appendix 3](#)).

Relative sample size calculations

We used a sample size equation for binary outcomes with repeated measures (30) to demonstrate the influence of recall period on the sample size required to estimate a constant relative reduction in illness (diarrhea, cough, fever) given the outcome prevalence in the cohorts ([Web Tables 1-3](#)). For daily prevalence calculations, a single survey measurement includes an observation for each day of recall, so we additionally specified the correlation between each day of recall in the power calculations (based on empirical estimates from the data, [Web Tables 4-6](#)). We present the results in terms of relative sample size required with a 7-day recall period as the base. The relative sample size calculations are invariant to the magnitude of the PR, the number of visits per child, and outcome correlation between repeated visits.

RESULTS

Study population

The analysis included 12,191 children 0 to 24 months old. The five cohorts represent a broad range of cultural, environmental, and illness conditions ([Table 1](#)). For example, households with a soil floor ranged from 24.8% (Indonesia) to 76.4% (India MP), and 7-day period prevalence of diarrhea ranged between 6.3% (India HP) and 18.3% (Peru). Of the three risk factors we considered in this analysis, anemia was uncorrelated with stunting ($\tau_b = -0.07$) and underweight ($\tau_b = -0.07$), while stunting and underweight were moderately correlated ($\tau_b = 0.43$) (31).

Empirical symptom reporting patterns and prevalence ratio estimates

Without reporting error, one would expect the daily prevalence of an outcome such as diarrhea to be stable over a 14-day period in large cohorts because it is reasonable to assume the populations were in steady state over the 14-day measurement period (32). Across symptoms and cohorts the estimated daily prevalence generally declined for recall periods $> 2\text{-}3$ days, and the decline was large for recall periods > 7 days ([Figure 1](#)). The daily prevalence increased between days 2 and 7 in only one measurement (fever in Peru). By 14 days of recall, the estimated daily point prevalence was a small fraction of the 2-day average for diarrhea (16% – 29%), cough (17% – 30%) and fever (26% – 47%). The patterns and levels of relative daily reporting were strikingly similar across cohorts and symptoms ([Figure 2](#)). There was some heaping of symptom reports on day 7 across cohorts, which was particularly evident for fever.

In the range of comparisons that we considered, we observed situations with both non-differential and differential reporting errors by risk factor. [Web Figure 1](#) shows examples using diarrhea. There was no consistent pattern of differential reporting by population, outcome, or risk

factor, but the extent of differential reporting, if present, increased with longer recall periods: short recall periods (< 3 days) were more protected from differential reporting errors.

Despite large drops in daily illness prevalence with longer recall, and the potential for differential reporting errors, the empirical PR was relatively stable over different recall periods in the scenarios we considered for diarrhea, cough and fever ([Web Figures 2-4](#)).

Optimal recall periods based on a bias-variance tradeoff

Bias in the PR, if present, tended to increase while variance of the PR tended to decrease with longer recall periods ([Figure 3](#)). The % bias with a 7-day recall period was <10% in 30 of 45 scenarios, and was broadly similar across outcomes: diarrhea (range = 1% to 30%), cough (range = 1% to 13%), and fever (range = <1% to 14%) ([Web Figures 5-7](#)). Bias, if present, could be toward or away from the null. Compared to a 2-day recall period, the standard error of the PR estimated with a 7-day recall period was smaller (more than 20% smaller in 35 of 45 scenarios) for diarrhea (range = -1% to -52%), cough (range = -1% to -29%), and fever (range = -21% to -57%) ([Web Figures 5-7](#)). Results based on daily prevalence were highly consistent with the period prevalence results ([Web Appendix 5](#)).

The empirical patterns in the MSE varied substantially across countries, outcomes and comparison groups ([Figure 3](#), [Web Figures 8-10](#)). Despite this variation, the MSE tended to decline with longer recall periods, and was minimized in most scenarios with a recall period of 6 days or longer. In 9 of 45 scenarios the MSE increased and was larger with a 7-day recall period compared to a 2-day recall period.

The effect of recall period and outcome measure on study sample size

Shortening the recall period from 7 days to 2 days reduced outcome prevalence and led to smaller absolute differences between groups for a constant PR; this consequently required sample size increases of 52–92% (diarrhea), 47–61% (cough), and 102–206% (fever) ([Figure 4](#)). The use of daily prevalence required larger sample sizes compared to period prevalence for > 1 days of recall. For example, the use of daily prevalence instead of period prevalence with a 7-day recall period required sample size increases of 35–52% (diarrhea), 29–42% (cough) and 36–47% (fever) ([Web Figure 11](#)).

DISCUSSION

Summary

In this analysis of 12,191 children 0 – 24 months old from five cohorts that include a wide range of symptom prevalence, environmental conditions, and cultural conditions, we found consistent evidence that caregiver-reported symptoms declined after 3 days of recall, and estimates typically fell below 50% of the day 1-2 average after 7 days of recall ([Figures 1, 2](#)). If the goal of the study is to obtain an unbiased measure of disease burden, such as in Demographic and Health Surveys, then recall should be limited to 2–3 days; the use of recall periods > 3 days will bias prevalence levels downward under the assumption that reporting is less biased closer to the interview. However, despite larger reporting errors over longer recall periods and the possibility of differential recall between comparison groups, we estimated the PR with little bias with up to 7 days of recall. Furthermore, a recall period of 6 days or longer minimized the MSE in most scenarios we considered ([Figure 3, Web Figures 8-10](#)).

Our analysis suggests that studies can increase statistical power through the use of a 7-day recall period compared to a 2-day recall period at little cost in terms of bias. Calculations from the five cohorts demonstrate required sample size increases of 47–206% with the use of a 2-day recall period compared to a 7-day recall period ([Figure 4](#)). Studies that have recommended a 2–3 day recall period as the optimal period for symptom measurement (13,15,16) have failed to account for the loss of statistical efficiency with shorter recall periods, which in this analysis outweighs the small amount of bias introduced with longer recall periods when estimating the PR between groups. Our analysis also demonstrates that studies can gain additional efficiency if they use period prevalence rather than daily prevalence: with a 7-day recall period, the use of daily prevalence required 29–52% larger samples than period prevalence across symptoms and cohorts ([Web Figure 11](#)).

Differential recall errors

Errors in caregiver-reported illness are a form of misclassification error. If caregivers fail to remember or report illness, then a child is incorrectly classified as well when she, in fact, is ill. If reporting errors are mainly due to under-reporting symptoms (forgetting) and non-differential by group, the PR will be unbiased with any recall period; without those two conditions, the bias is unpredictable ([Web Appendix 4](#)). To our knowledge only one study has evaluated whether reporting errors were differential by randomized treatment, and it found errors to be non-differential despite weekly visits and intense household water treatment promotion (16). In this analysis, some of the PR calculations used outcomes that were reported differentially by risk factor group ([Web Figure 1](#)). Despite the presence of differential reporting errors, we observed relatively consistent estimates of the diarrhea PR over a 1–14 day recall period for diarrhea,

cough, and fever (Web Figures 2-4). We would expect that bias from differential reporting errors to be most problematic in nonrandomized, cross-sectional studies because: (i) randomization will balance, on average, characteristics that could lead to differential reporting, and (ii) longitudinal studies could remove the differential reporting errors by conditioning effect estimates on the caregiver (e.g., with household-level fixed-effects).

Recommendations for practice

We recommend that investigators collect daily illness information with 7 days of recall. This suggestion follows from three of our results. First, daily symptom reporting declined precipitously after 7 days of recall across symptoms and cohorts, suggesting large errors beyond 7 days of recall (Figure 1). Second, there was relatively little bias in PR estimates with 7 days of recall, and the MSE was minimized in most scenarios with close to 7 days of recall (Figure 3, Web Figures 8-10). Finally, the gains in statistical efficiency were largest between 2 and 7 days of recall, with relatively small efficiency gains over longer recall periods (Figure 4). As a final pragmatic consideration, 7 days is a standard unit of time in many cultures (1 week) and is relatively easy to standardize across studies (compared to 6 or 8 days, for example).

With a pre-specified analysis protocol, investigators can use the daily symptom data to test whether the reporting error patterns are differential by group. If errors are non-differential, then the analysis could proceed with a 7-day recall period. If survey time is limited, we recommend that investigators measure symptoms with daily recall for two days before the interview, and ask an additional question to measure 7-day period prevalence. Differential reporting error can be detected with this more limited set of information using the ratio of prevalent cases to terminated

cases under the assumption that episode duration is similar in the two groups (11). Web

Appendix 1 includes example survey instruments.

Caveats

Consistent with earlier analyses of caregiver recall error (10,15,16), our analysis assumed that symptoms reported close to the interview were more accurate than reports further in the past. If this assumption is wrong, and participants over-report symptoms close to the interview, then longer recall periods would be less biased (and more favorable) than we estimated in this analysis. Psychological research has found that event recall is less accurate over time (see (6–8) for reviews in the context of survey measurement). However, Freij et al. (33) compared daily interviews of child morbidity with two-week interviews in Addis Ababa, and found that the two-week interview produced an over-reporting of recent illness and an under-reporting of past illness relative to the daily interview measurements. This pattern could have occurred by forgetting events in the past, or by misplacing days of illness closer to the interview that actually occurred further in the past. Whatever the cause, the two effects approximately cancelled each other out, so a prevalence measure that captured the entire period was approximately unbiased. Replicating the Freij et al. study in other settings would be a useful future contribution because it would provide empirical evidence about whether it is reasonable to assume that symptom reporting in the two days before the interview is unbiased.

A second caveat is that our primary analysis estimated the PR with a non-parametric ratio of means, which did not account for possible confounding or effect modification of the relationship between the exposures of interest and outcomes. Nonetheless, adjusting for possible confounders

in this dataset by estimating the PR with log-binomial regression (29) in a secondary analysis did not change our results ([Web Appendix 2](#)).

Finally, we showed that the use of period prevalence is more statistically powerful than daily prevalence, which corroborates an earlier finding based on simulation (20). However, the choice between the measures should depend on whether investigators expect the intervention to act primarily through reduced episode duration (27). If an intervention reduces prevalence only through episode duration, then daily prevalence measures would be preferred because period prevalence can be biased toward the null hypothesis of no difference between groups (20).

External validity

We expect that our results apply to a broad range of epidemiologic field studies because our analysis included large samples drawn from diverse cultural and environmental conditions. We found highly consistent results across symptoms that cover many combinations of prevalence and episode duration. The empirical comparisons we considered included situations with both non-differential and differential recall errors between groups. The broad consistency in reporting patterns, bias, MSE, and statistical power that we observed across the wide range of analysis scenarios suggest that our findings are likely quite general for caregiver-reported illness in young children. We repeated the calculations for the risk difference and our findings were broadly consistent with the results for the prevalence ratio ([Web Appendix 5](#)). Since the cohorts included children < 24 months, our findings may not generalize to older populations.

Conclusions

The increased statistical efficiency (measured by markedly reduced sample sizes required) that resulted from the use of a 7-day recall period versus a 2-day recall period outweighed the small amount of bias in the prevalence ratio caused by reporting error in the outcomes and cohorts we studied. Therefore, we recommend that epidemiologic studies that use caregiver-reported illness to compare groups, such as risk factor or intervention studies, measure symptoms with a 7-day recall period.

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TABLES

Table 1. Cohort characteristics for children ages 0 to 24 months in Himachal Pradesh (India HP), Madhya Pradesh (India MP), Indonesia, Peru, and Senegal in 2008-2009.

Mean	India HP		India MP		Indonesia		Peru		Senegal	
	N = 2,058	%	N = 2,153	%	N = 2,098	%	N = 3,708	%	N = 2,174	Mean (SD)
General										
Age in months	11.9 (6.8)		11.7 (6.5)		11.9 (6.3)		11.9 (6.9)		11.9 (6.8)	
Female	47.8		48.9		49.2		48.5		46.2	
Currently breastfed	66.1		86.5		80.0		83.8		80.5	
Anemic (Hb < 110 g/l) ^a	35.6		30.6		71.0		40.9		90.8	
Height-for-age Z-score < – 2 ^a	26.1		44.3		20.8		27.9		11.3	
Weight-for-age Z-score < – 2 ^a	19.4		47.9		13.3		10.1		9.5	
Household										
Electricity	94.8		80.7		98.8		69.9		37.7	
Soil (dirt or clay) floor	31.8		76.4		24.8		69.2		25.0	
Cooks with biofuel	79.4		90.8		73.8		68.6		76.6	
JMP Improved Water Source	89.8		84.7		87.3		75.0		69.2	
JMP Improved Sanitation	32.0		13.7		48.7		40.0		70.8	
Diarrhea										
24 h point prevalence	2.5		6.5		4.1		8.3		7.9	
48 h period prevalence	3.4		8.8		4.8		10.4		9.9	
7 d period prevalence	6.3		14.4		8.2		18.3		14.4	
Episode duration ^b	2.93 (1.97)		3.79 (2.17)		2.98 (2.06)		3.66 (2.26)		3.95 (3.06)	
Cough										
24 h point prevalence	15.0		7.9		18.0		23.5		10.7	
48 h period prevalence	17.0		9.8		19.9		25.3		12.4	
7 d period prevalence	24.4		15.0		27.0		34.1		17.3	
Episode duration ^b	3.90 (1.92)		3.55 (2.02)		4.59 (2.74)		5.04 (2.58)		4.70 (2.79)	
Fever										
24 h point prevalence	12.8		8.4		12.9		6.1		18.0	
48 h period prevalence	16.2		12.0		17.0		9.0		23.4	
7 d period prevalence	29.2		21.8		31.5		23.5		39.8	
Episode duration ^b	3.43		3.59		3.34		2.28		4.17	

(1.92) (2.37) (2.30) (1.49) (2.53)

India HP: Himachal Pradesh, India; India MP: Madhya Pradesh, India; SD: Standard Deviation; JMP: World Health Organization / Unicef Joint Monitoring Programme for water supply and sanitation definitions (34).

^a Some children in the cohorts had missing measurements for hemoglobin, height and weight. Sample sizes (hemoglobin, height, weight): India HP= (1580,1972,1934), India MP= (1843, 2029, 2067), Indonesia= (1587, 2094, 2086), Peru= (3050, 3679, 3702), Senegal= (1597, 2155, 2160). Z-scores were calculated using the World Health Organization 2006 standards.

^b Estimated from episodes that terminated in the 7 days prior to the interview to avoid length-biased sampling (11,32).

FIGURE CAPTIONS

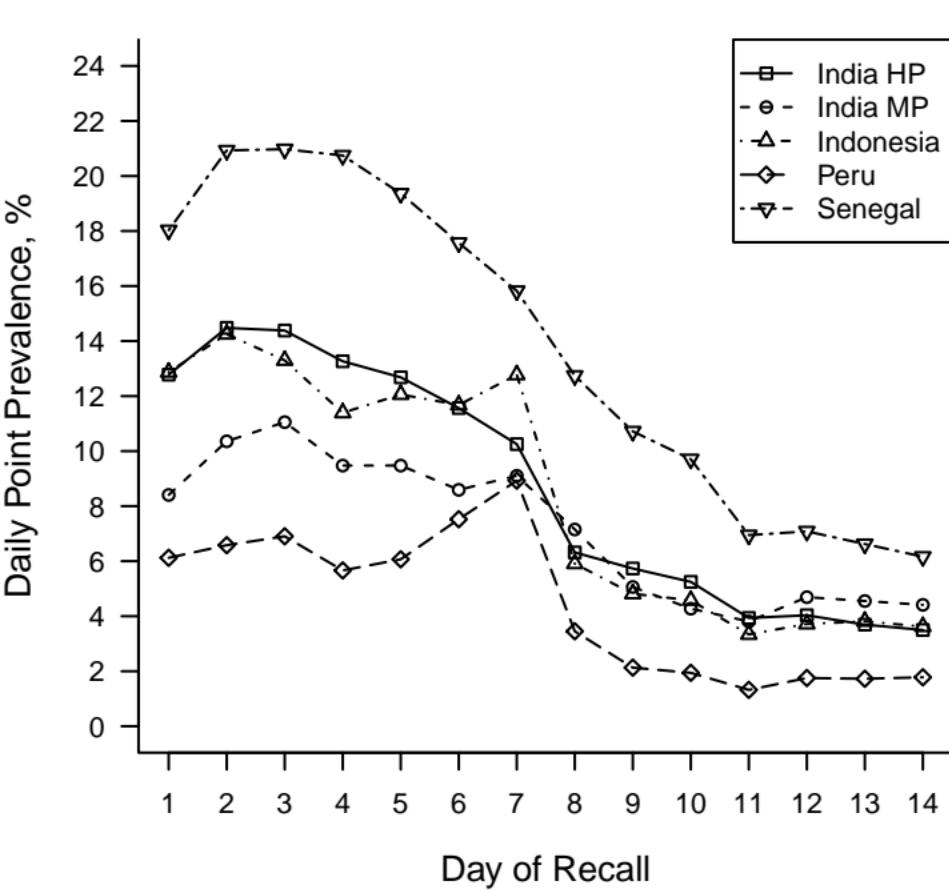
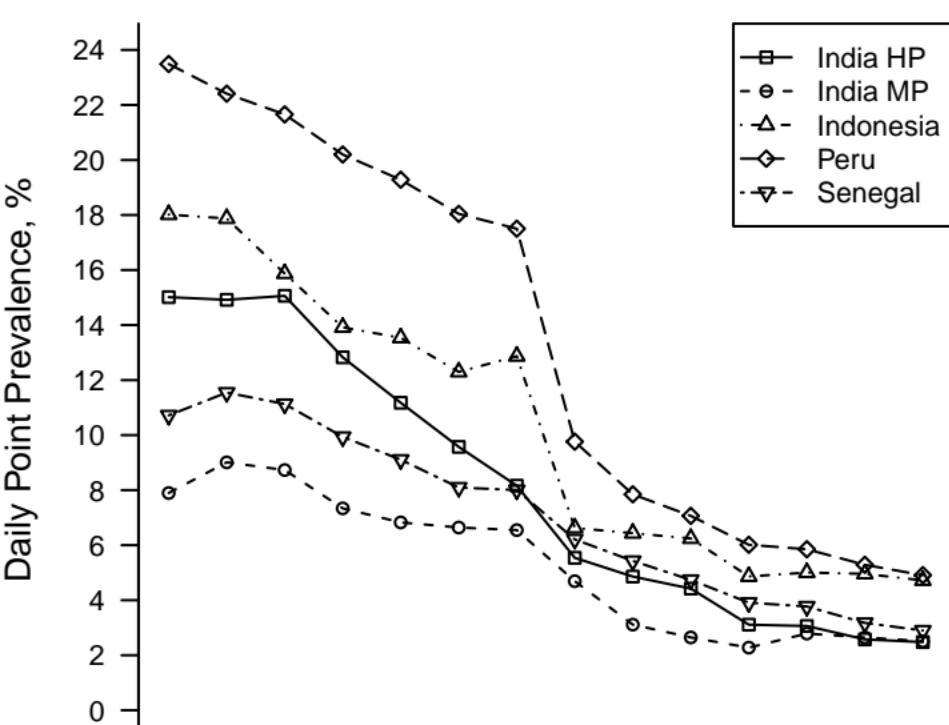
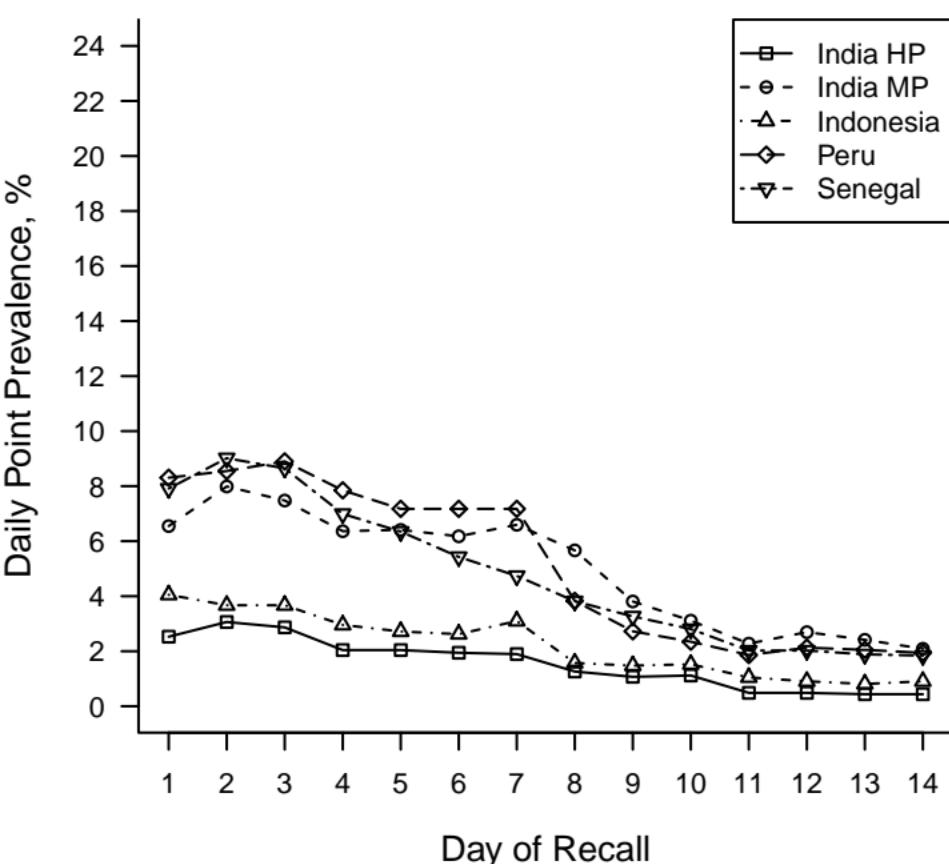
Figure 1. Daily point prevalence in the five cohorts for diarrhea (top), cough (middle), and fever (bottom). Recall day 0 is the day of the survey. Cohorts include children ages 0 to 24 months in Himachal Pradesh (India HP), Madhya Pradesh (India MP), Indonesia, Peru, and Senegal in 2008-2009.

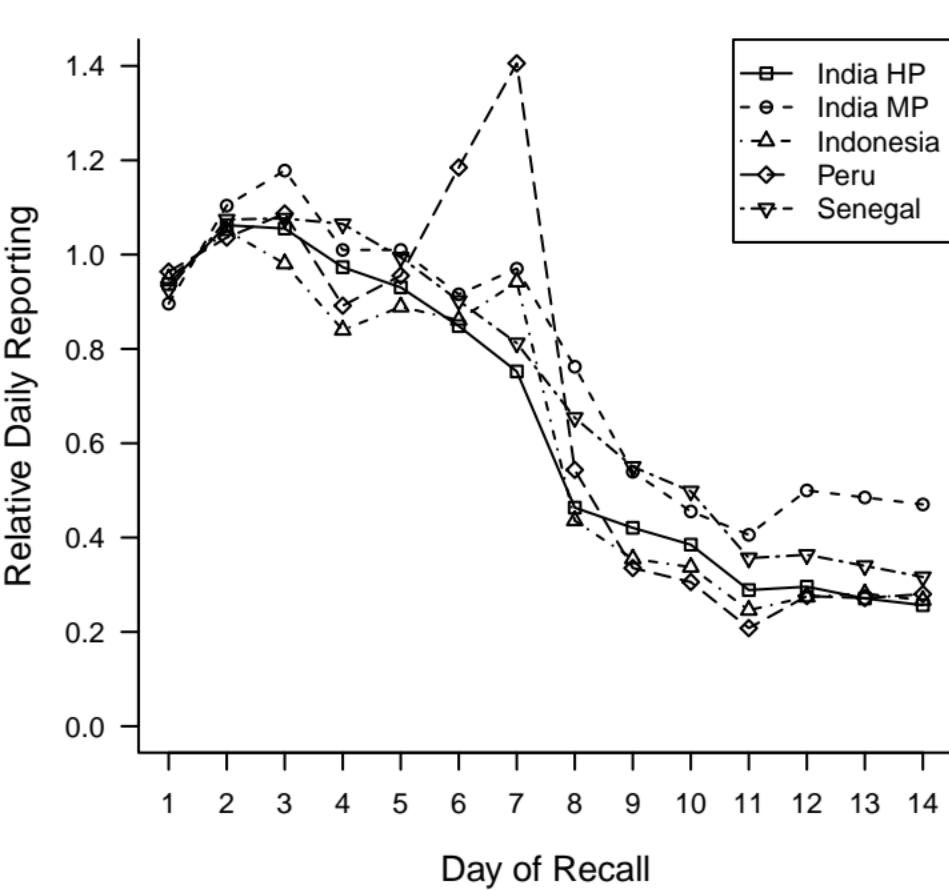
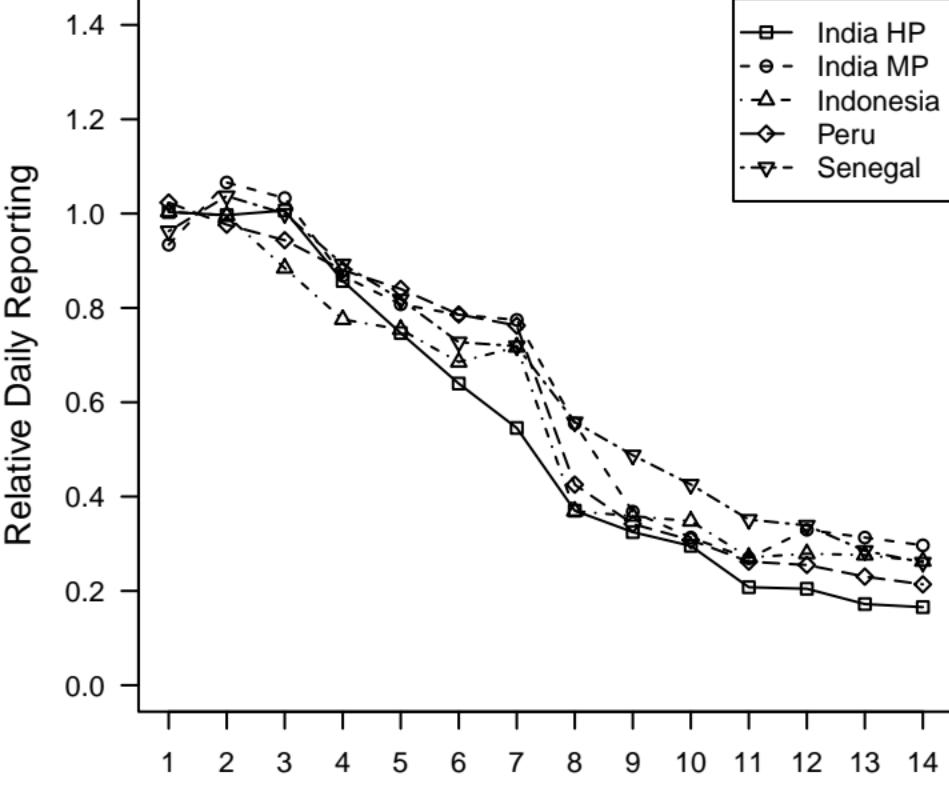
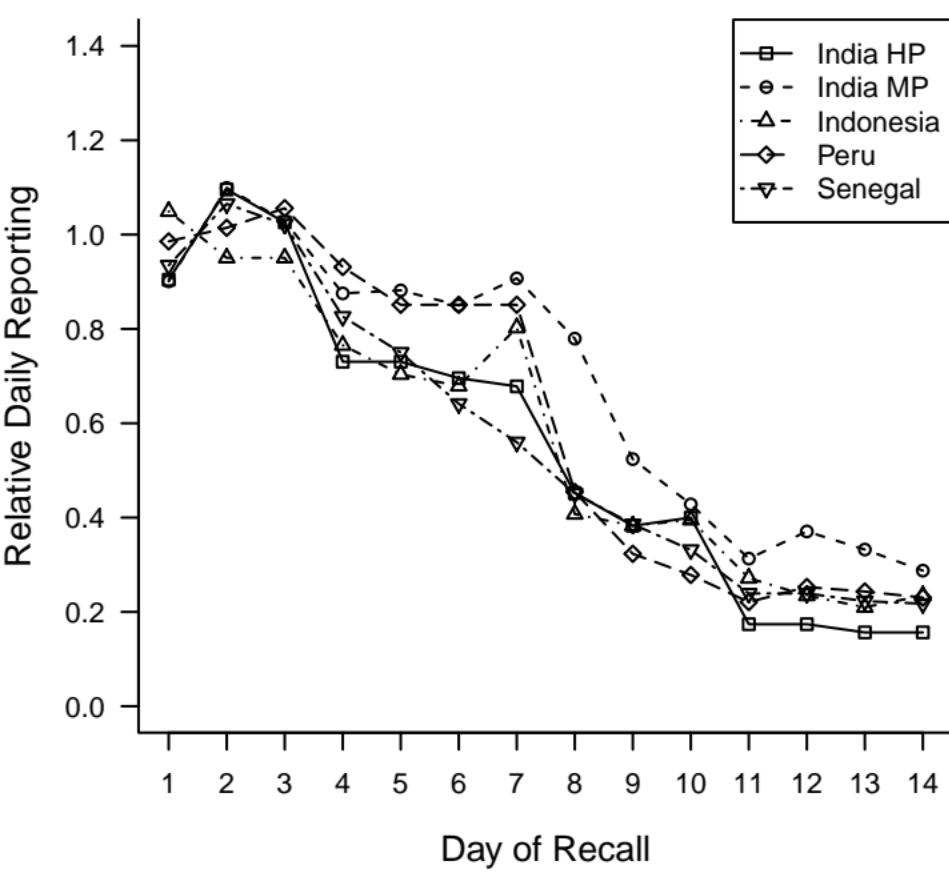
Figure 2. Relative daily reporting in the five cohorts for diarrhea (top), cough (middle), and fever (bottom). Recall day 0 is the day of the survey. The relative daily reporting is calculated as the daily point prevalence divided by the mean point prevalence for days 1 and 2. Cohorts include children ages 0 to 24 months in Himachal Pradesh (India HP), Madhya Pradesh (India MP), Indonesia, Peru, and Senegal in 2008-2009.

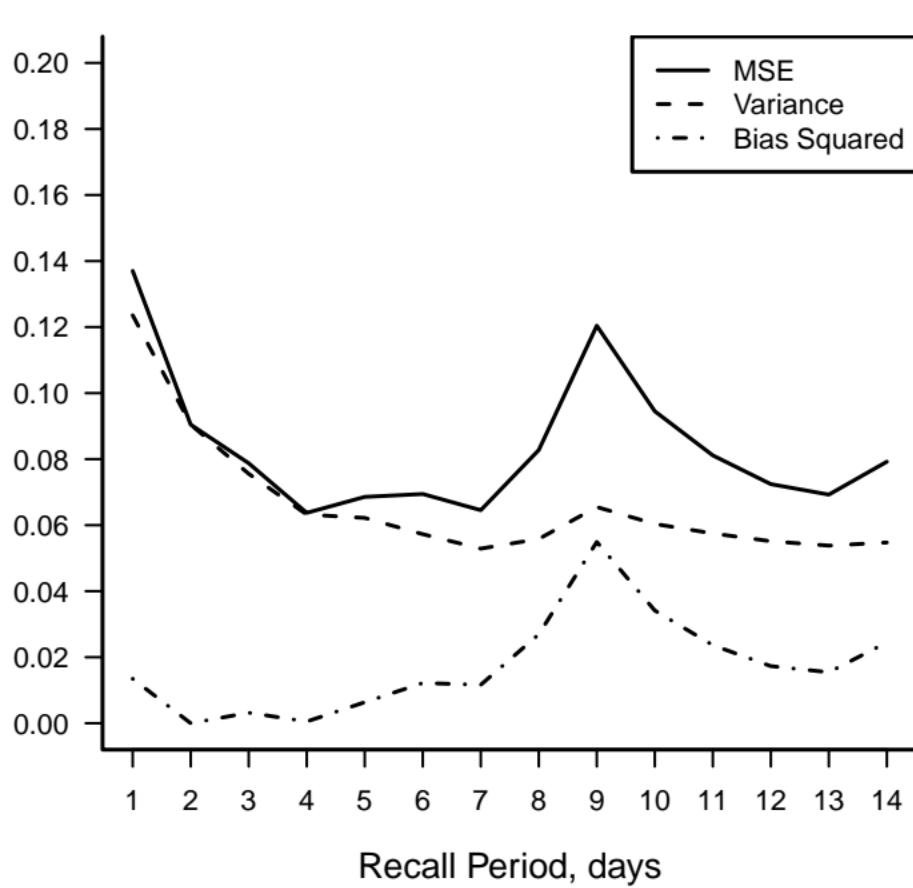
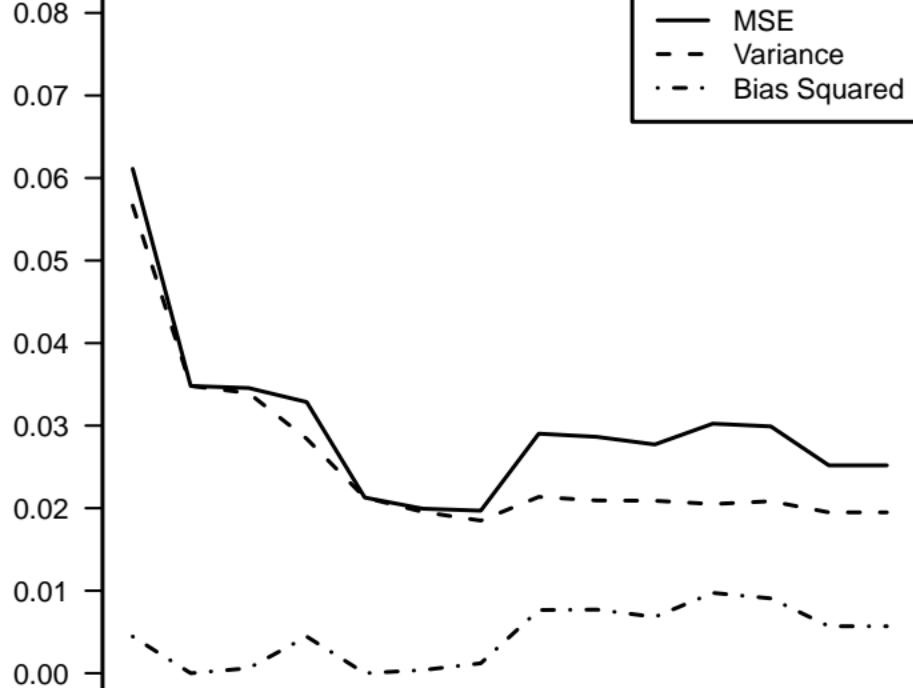
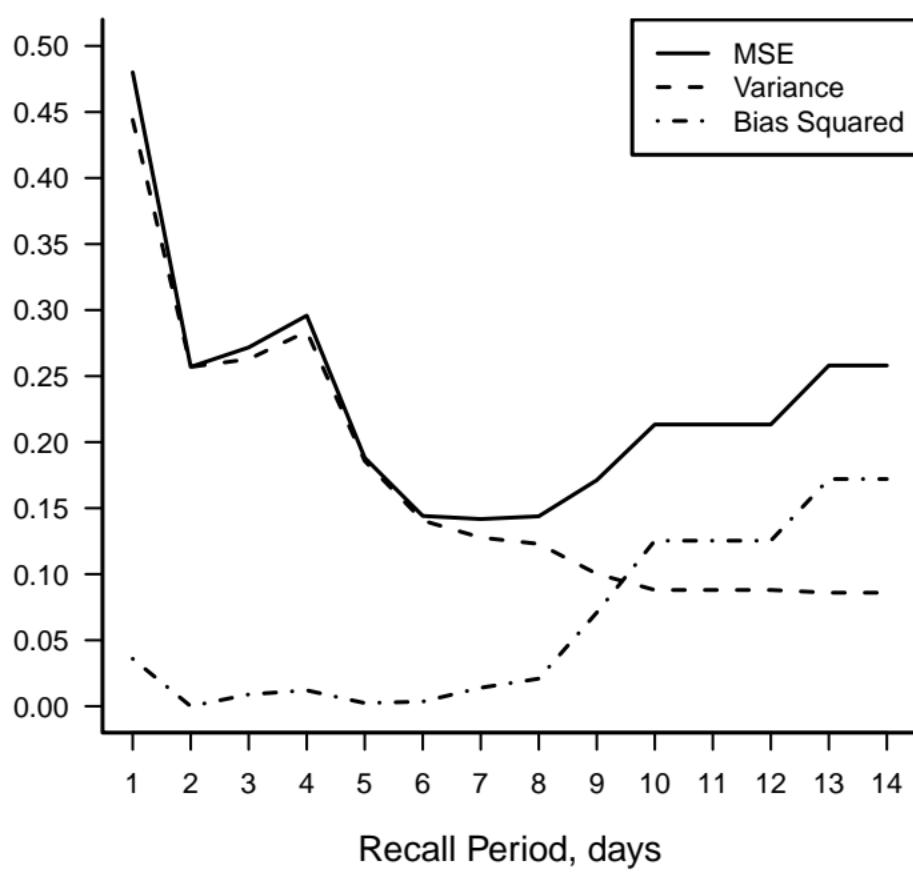
Figure 3. Bias, variance, and mean squared error (MSE) of the prevalence ratio of diarrhea estimated for underweight children versus not underweight children using period prevalence measured over different recall periods in Himachal Pradesh (top), Madhya Pradesh (middle), and Indonesia (bottom). The [Web Figures 8-10](#) include full results from all countries and scenarios. Cohorts include children ages 0 to 24 months measured in 2008-2009.

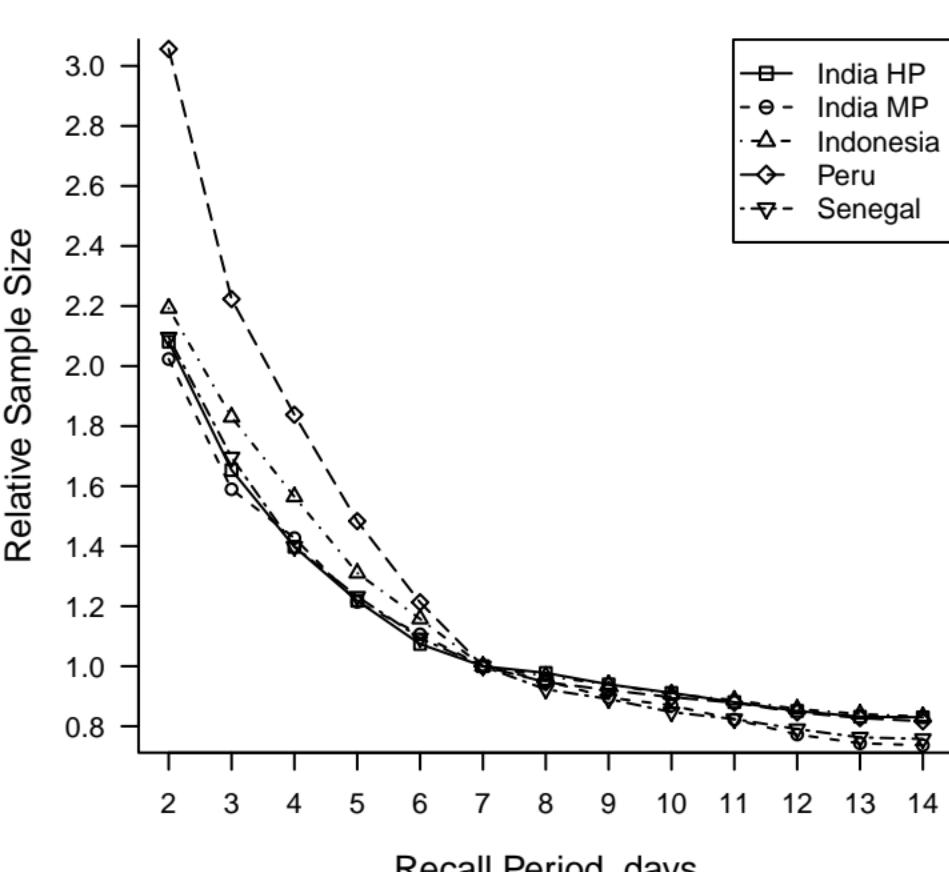
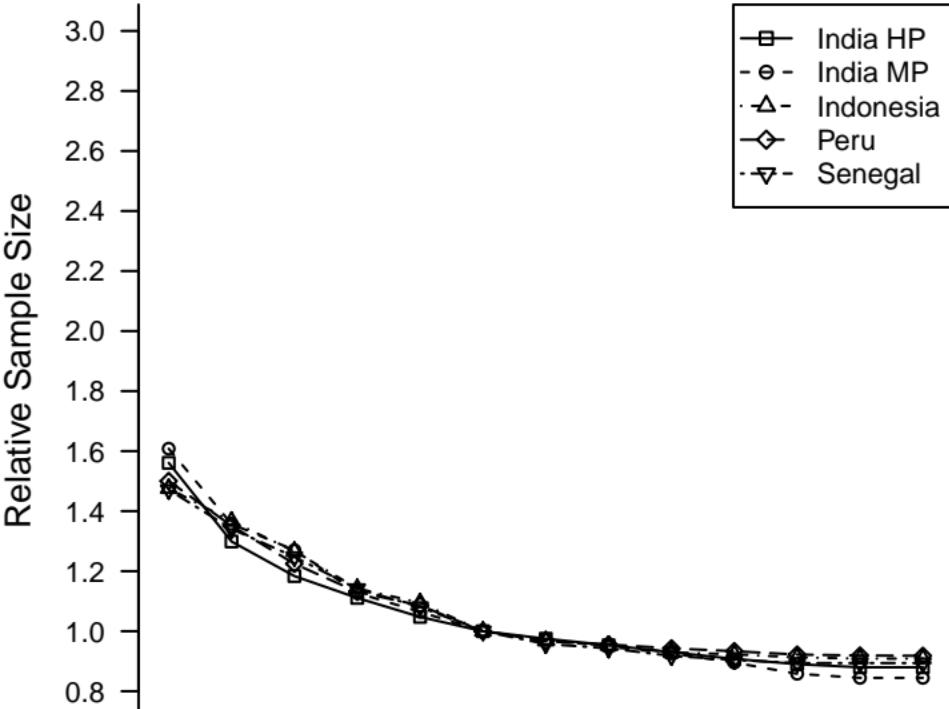
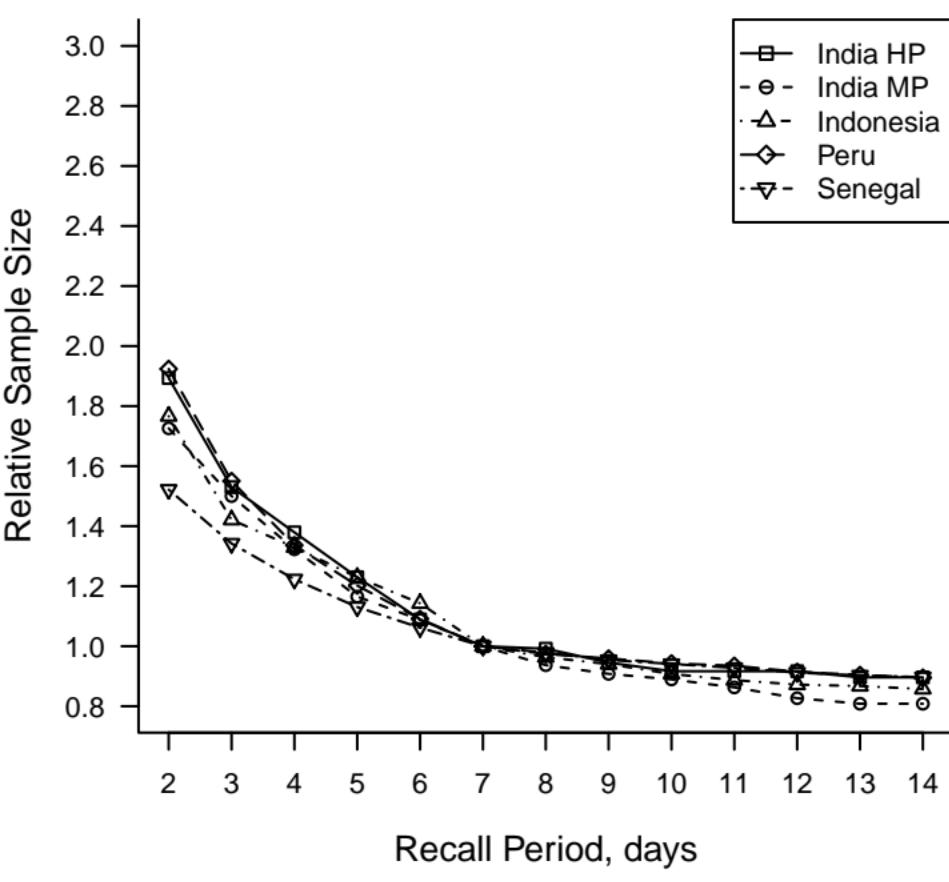
Figure 4. Relative sample size required to detect a constant prevalence ratio over different lengths of recall for diarrhea (top), cough (middle), and fever (bottom). The plot uses a 7-day recall period as the base (relative sample size = 1). The relationships are invariant to assumptions about the strength of association (prevalence ratio), the number of visits per child, and the

within-child outcome correlation between visits. Sample size calculations were informed by prevalence estimates from children ages 0 to 24 months in Himachal Pradesh (India HP), Madhya Pradesh (India MP), Indonesia, Peru, and Senegal in 2008-2009 ([Web Tables 1-6](#)).





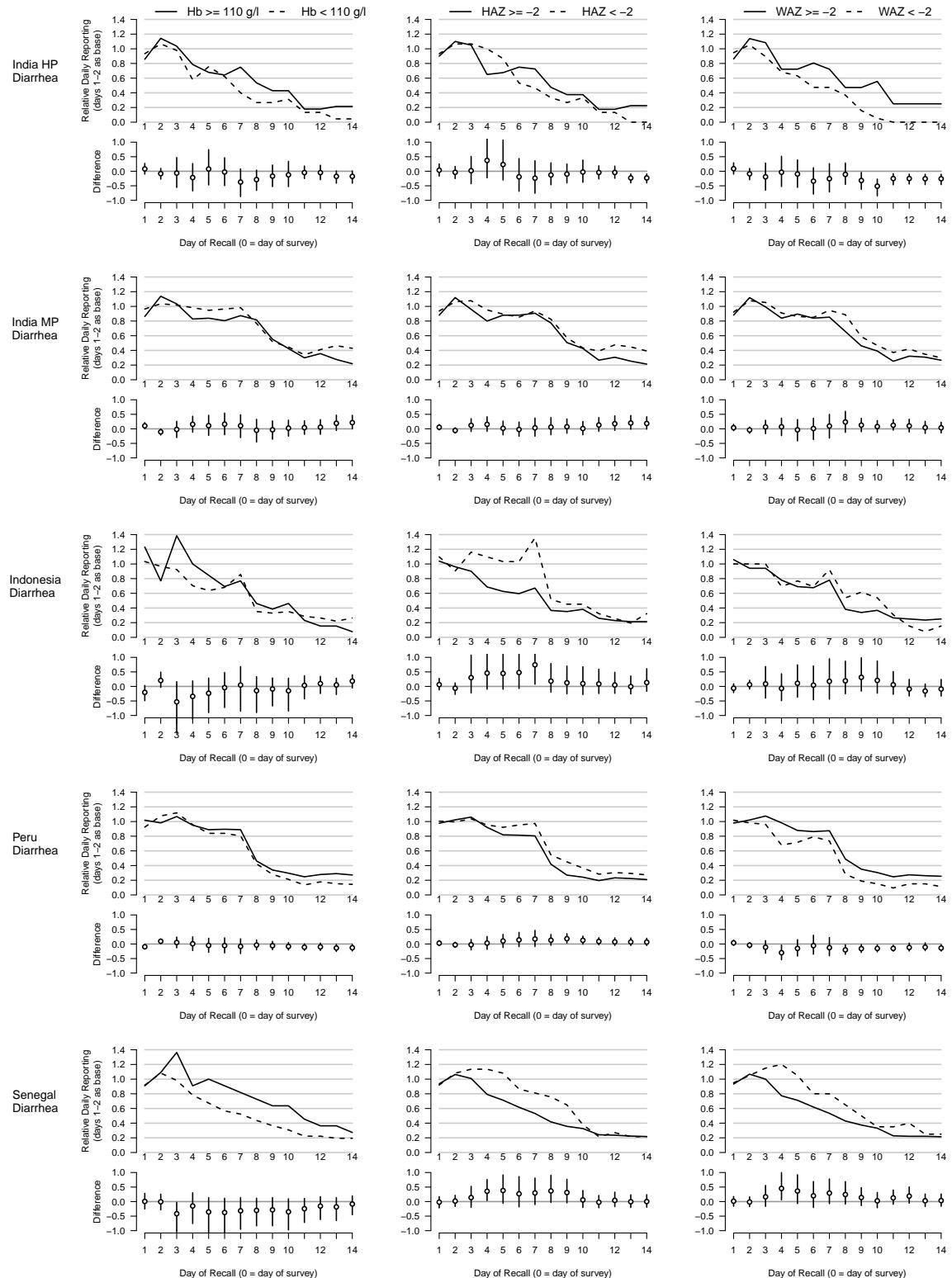




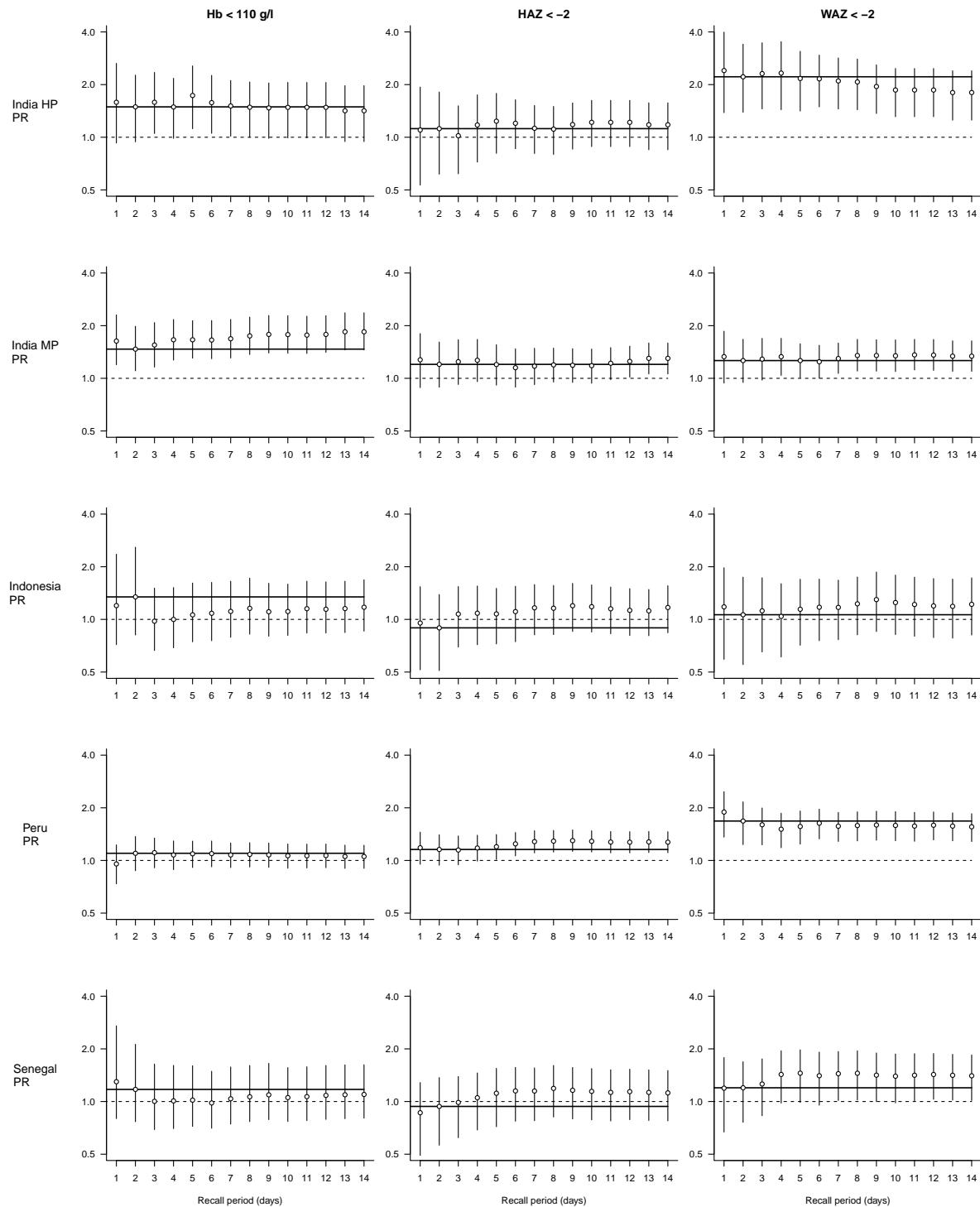
Optimal recall period for caregiver-reported illness in risk factor and intervention studies: a multicountry study

Arnold et al. *Am J Epidemiol* 2012. Supporting Web Files.

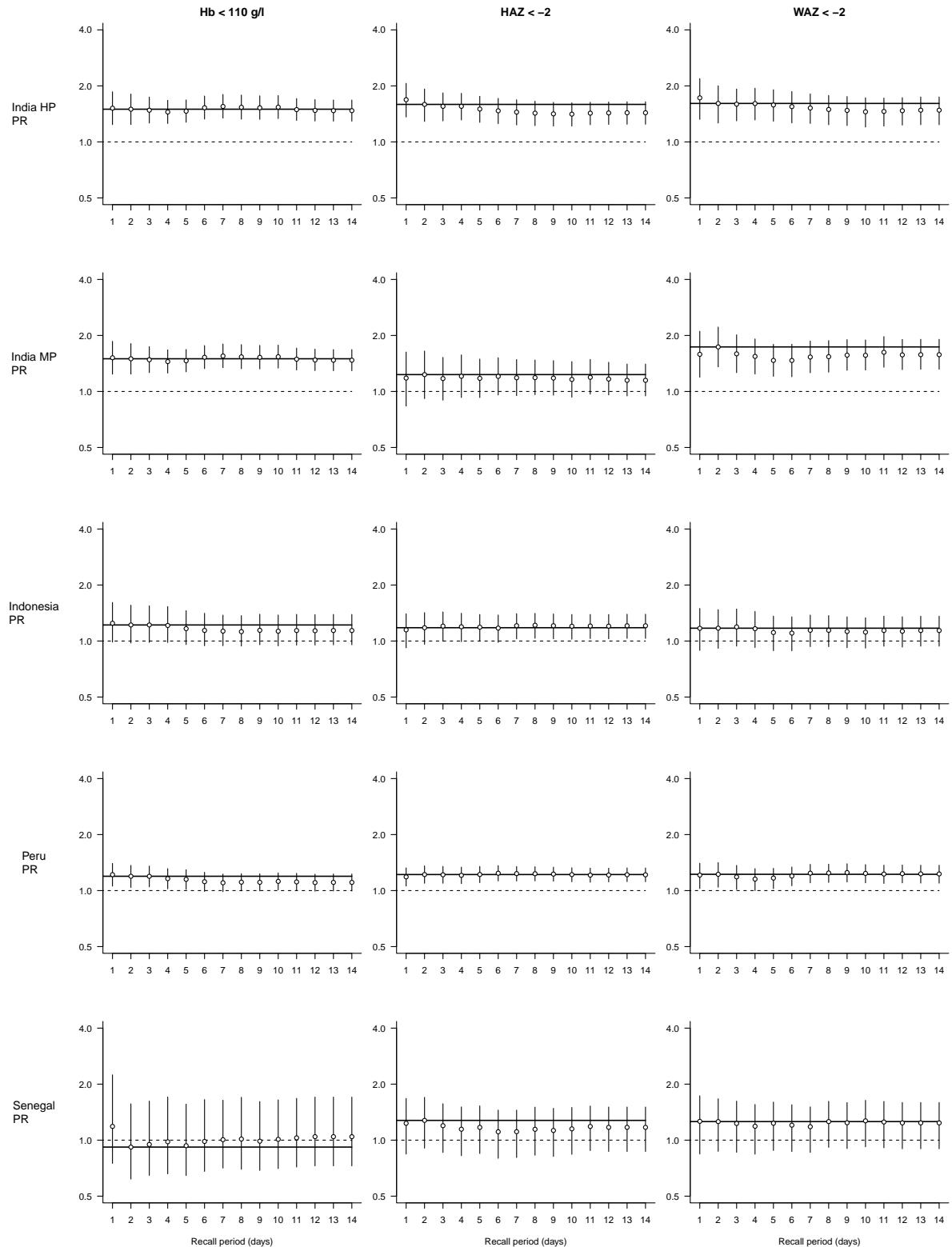
Web Figure 1: Relative daily reporting of diarrhea for different days of recall in each country (rows), stratified by different risk factors (columns). Risk factors include: anemic ($Hb < 110 \text{ g/l}$), stunted ($HAZ < -2$), and underweight ($WAZ < -2$). The relative daily reporting is calculated as the daily point prevalence divided by the mean point prevalence for days 1 and 2. With no under-reporting, the curves would be flat at 1.0. The difference between the curves is plotted below each pair of curves, with vertical lines that mark bootstrapped 95% confidence intervals. When the lines do not overlap (the difference between curves departs from zero), it suggests that symptom reporting is differential by risk factor group.



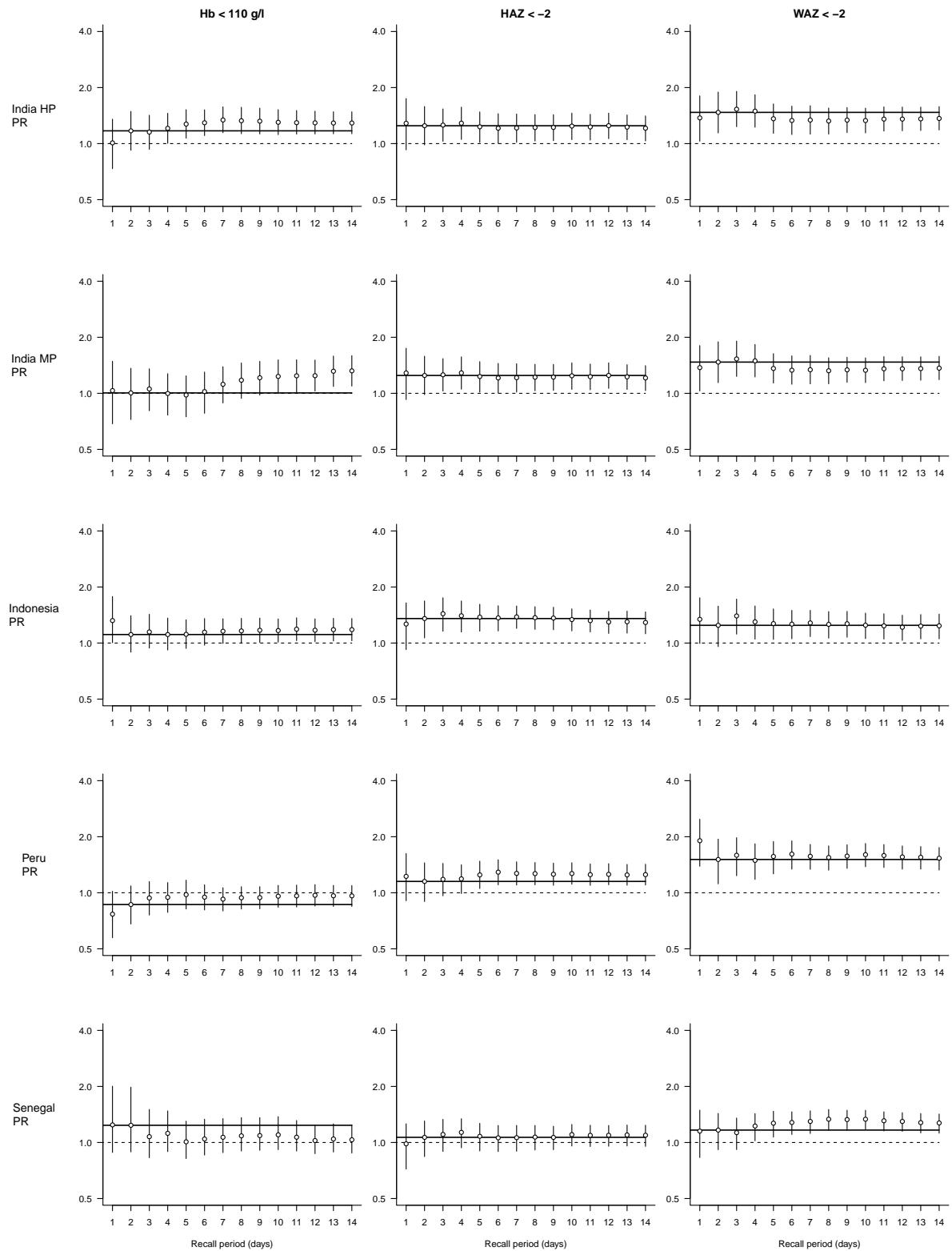
Web Figure 2: Empirical prevalence ratio (PR) of diarrhea by recall period, estimated using period prevalence, for three comparisons: anemic vs not anemic (Hb) , stunted vs. not stunted (HAZ) , and underweight vs. not underweight (WAZ). A solid horizontal line marks the PR with 2 days of recall. Vertical lines mark bootstrapped 95% confidence intervals.



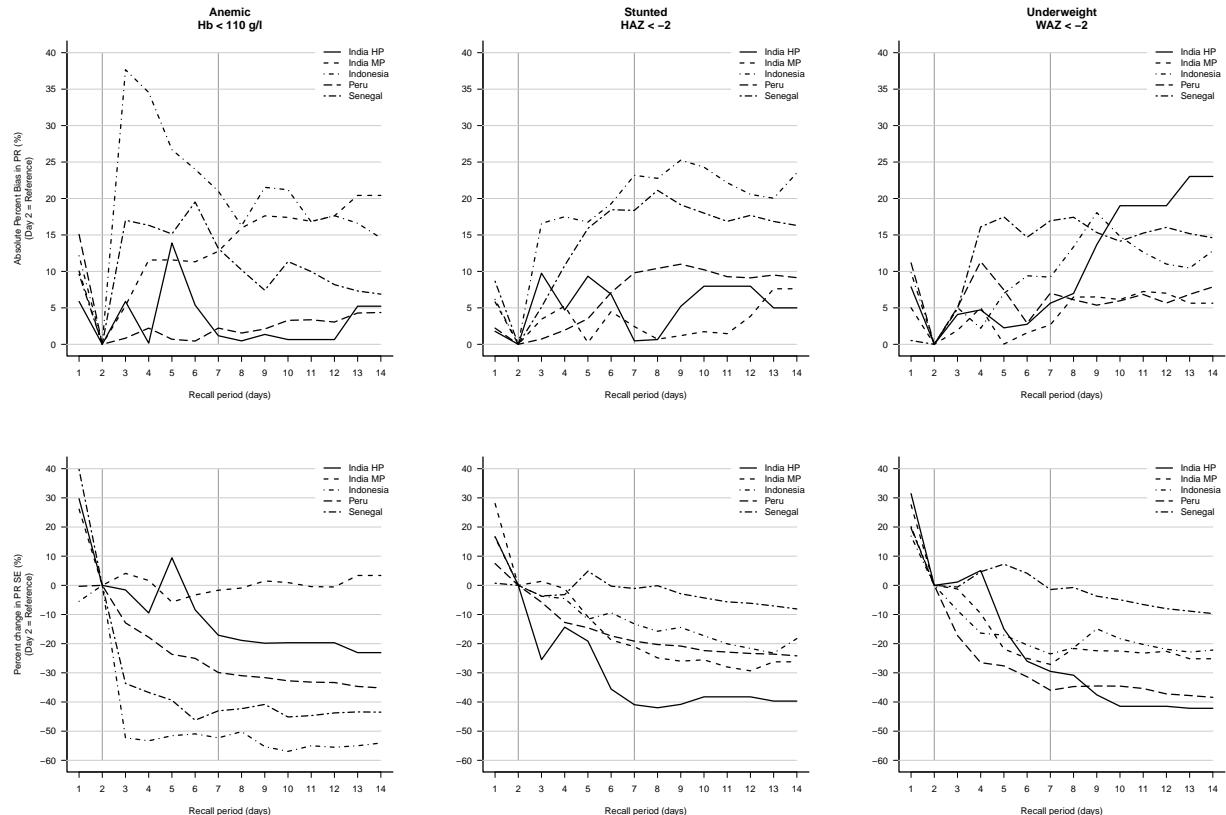
Web Figure 3: Empirical prevalence ratio (PR) of cough by recall period, estimated using period prevalence, for three comparisons: anemic vs not anemic (Hb) , stunted vs. not stunted (HAZ) , and underweight vs. not underweight (WAZ). A solid horizontal line marks the PR with 2 days of recall. Vertical lines mark bootstrapped 95% confidence intervals.



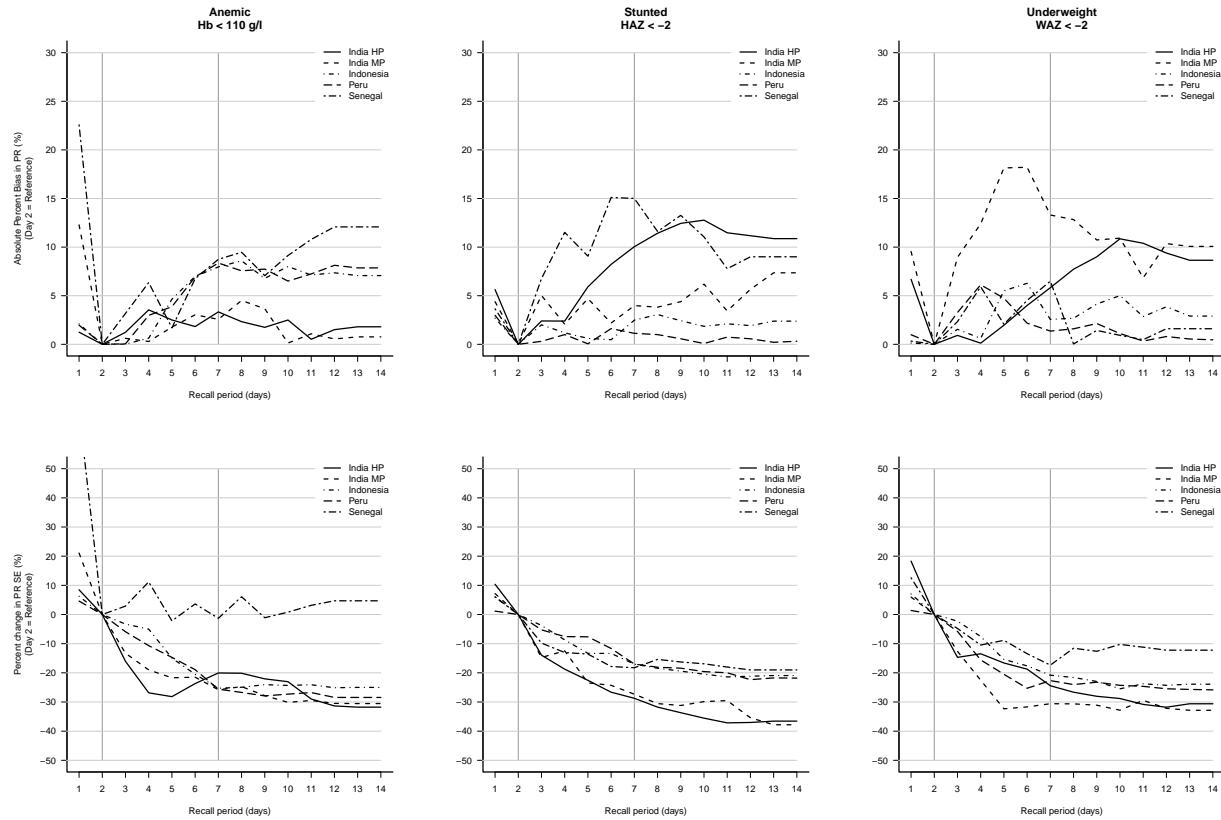
Web Figure 4: Empirical prevalence ratio (PR) of fever by recall period, estimated using period prevalence, for three comparisons: anemic vs not anemic (Hb) , stunted vs. not stunted (HAZ) , and underweight vs. not underweight (WAZ). A solid horizontal line marks the PR with 2 days of recall. Vertical lines mark bootstrapped 95% confidence intervals.



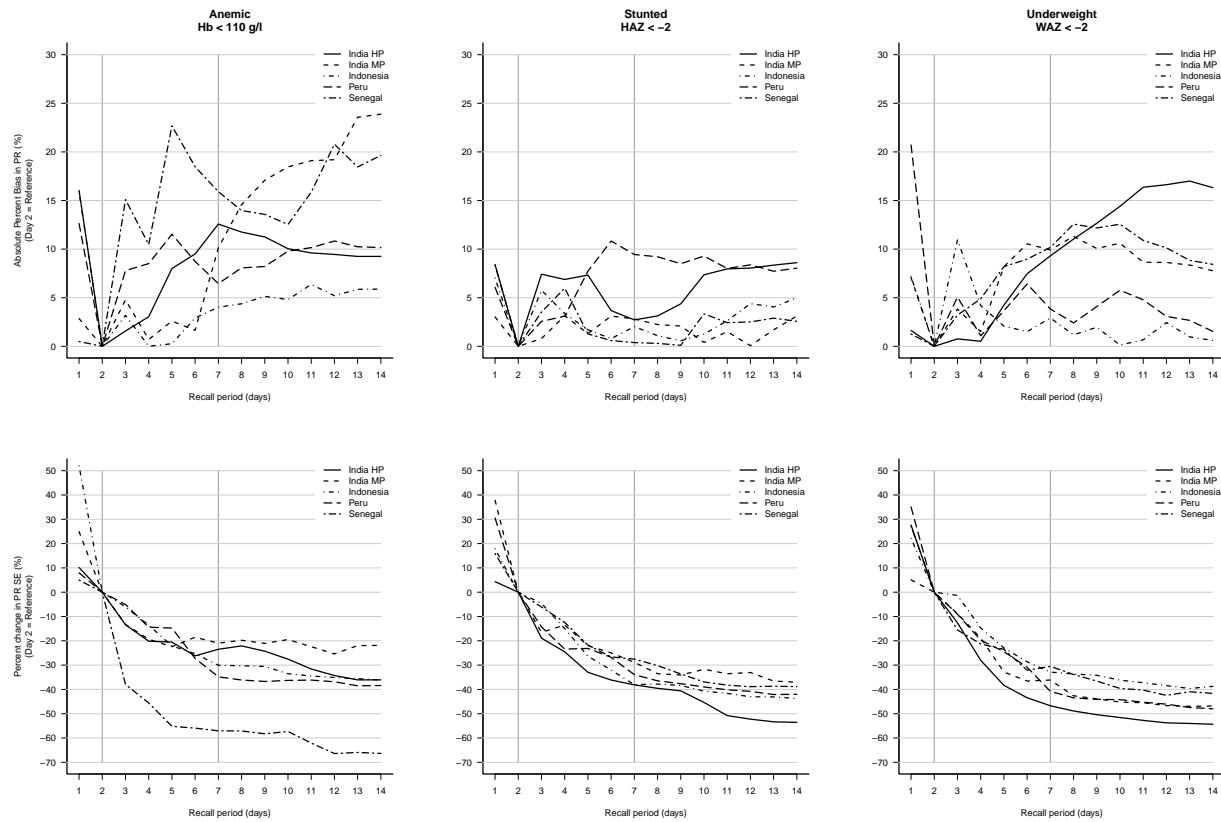
Web Figure 5: Percentage change in the bias and standard error (SE) of the prevalence ratio (PR) for diarrhea by recall period and cohort, estimated using period prevalence, for three comparisons: anemic vs not anemic, stunted vs. not stunted, and underweight vs. not underweight. The percent change in the bias is in absolute terms and assumes that a 2-day recall is unbiased. The percent change in the SE is relative to a 2-day recall period.



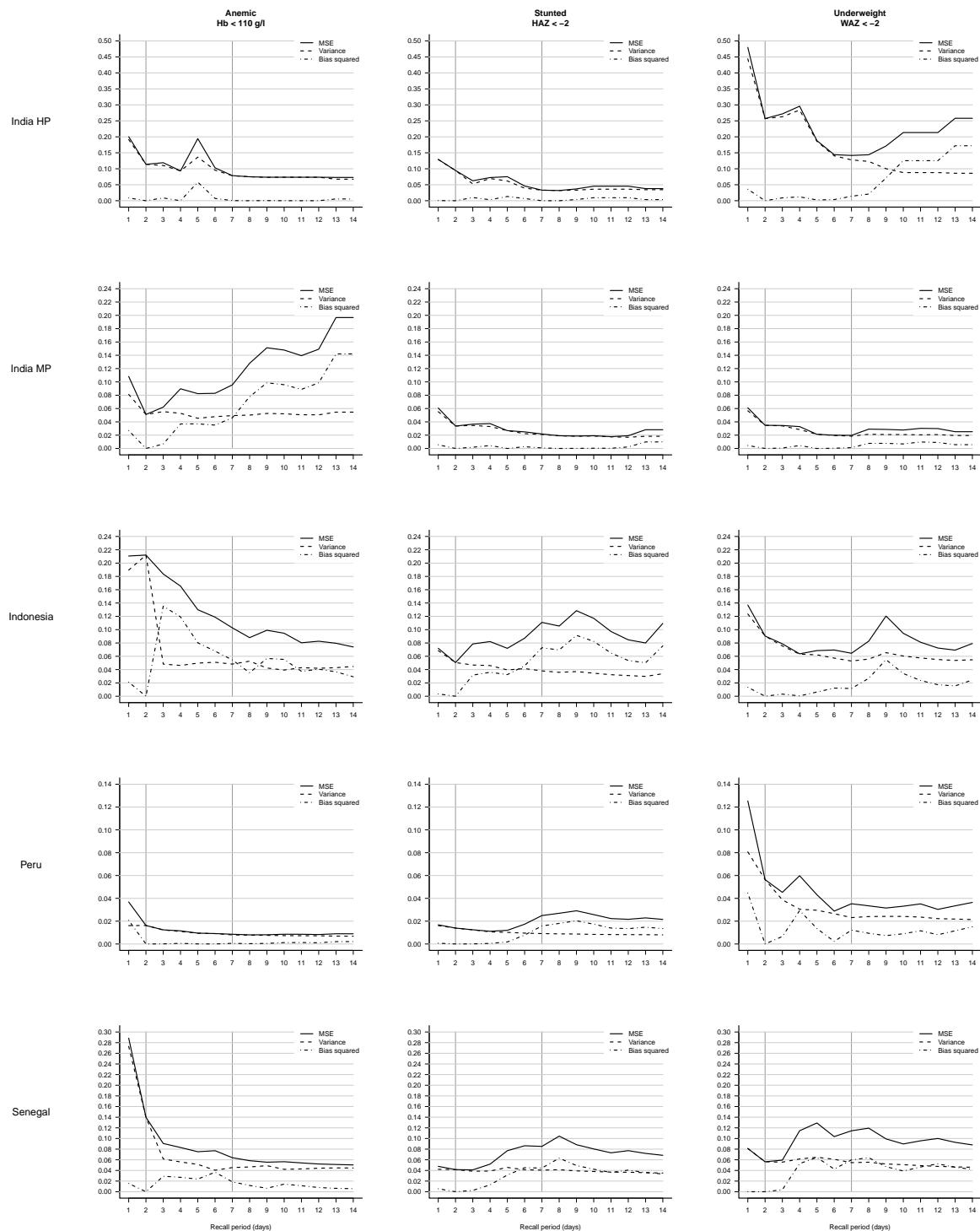
Web Figure 6: Percentage change in the bias and standard error (SE) of the prevalence ratio (PR) for cough by recall period and cohort, estimated using period prevalence, for three comparisons: anemic vs not anemic, stunted vs. not stunted, and underweight vs. not underweight. The percent change in the bias is in absolute terms and assumes that a 2-day recall is unbiased. The percent change in the SE is relative to a 2-day recall period.



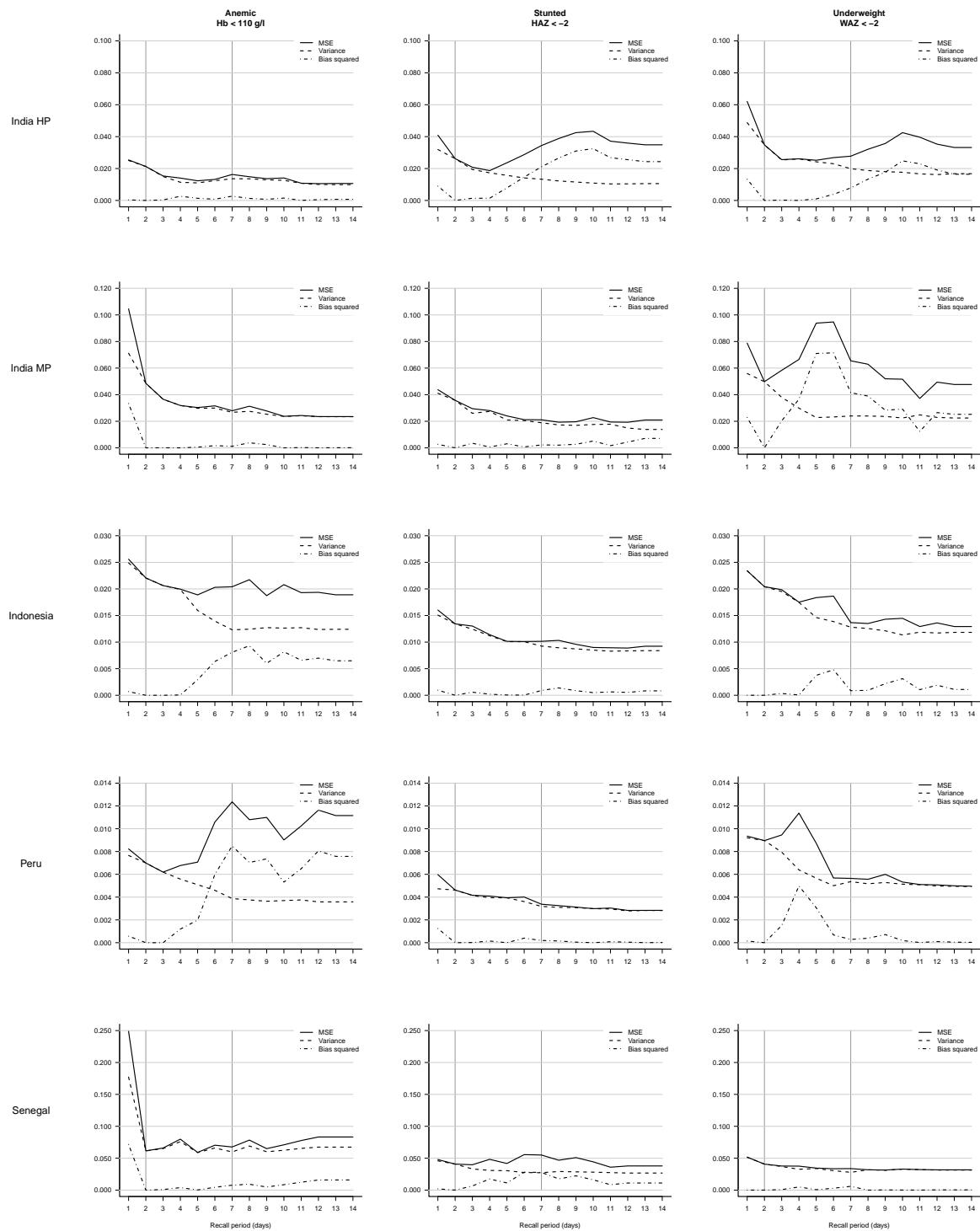
Web Figure 7: Percentage change in the bias and standard error (SE) of the prevalence ratio (PR) for fever by recall period and cohort, estimated using period prevalence, for three comparisons: anemic vs not anemic, stunted vs. not stunted, and underweight vs. not underweight. The percent change in the bias is in absolute terms and assumes that a 2-day recall is unbiased. The percent change in the SE is relative to a 2-day recall period.



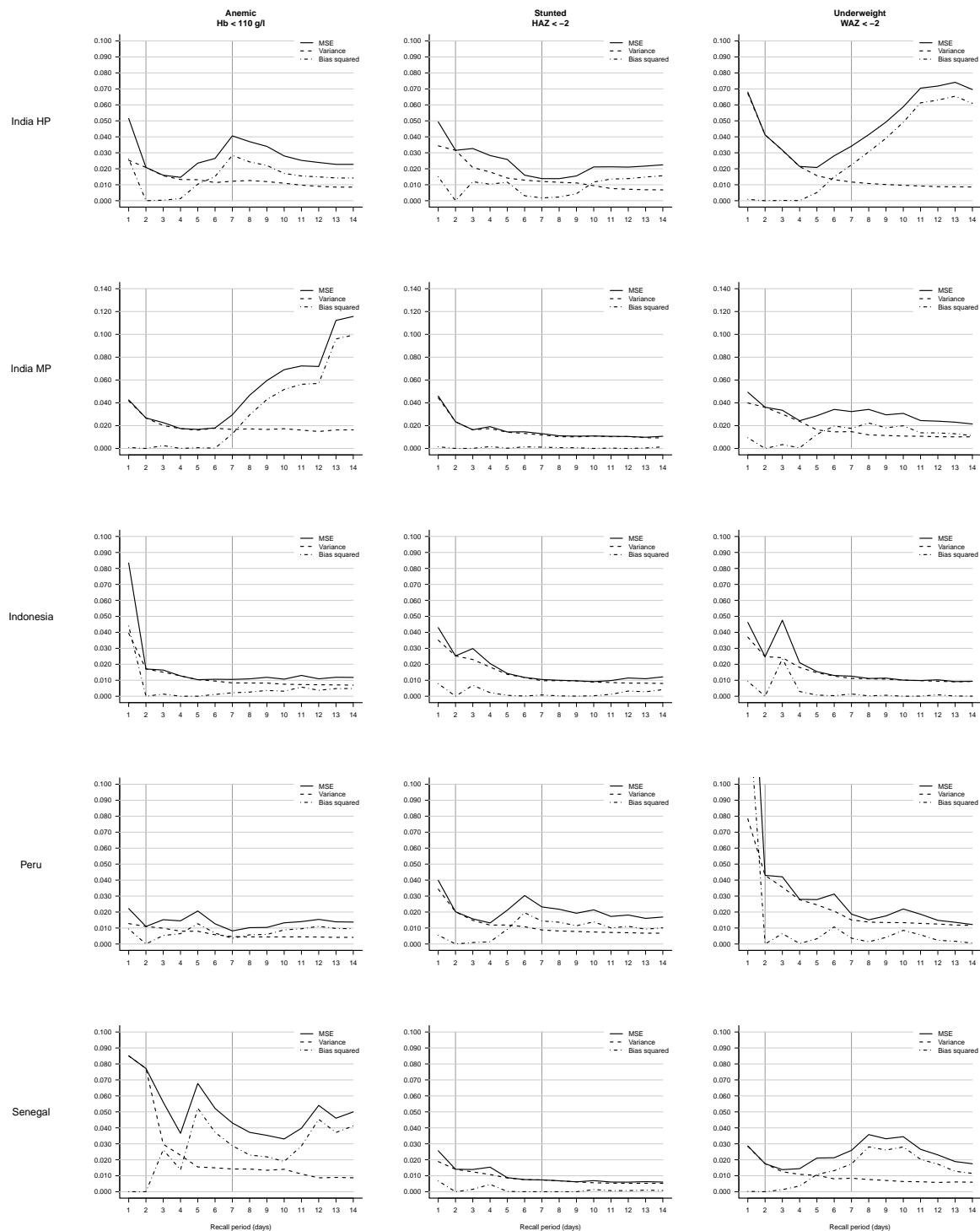
Web Figure 8: Bias, variance, and mean squared error (MSE) of the prevalence ratio of diarrhea estimated for three risk factors (anemic, stunted, underweight) using period prevalence measured over different recall periods. Each row includes results from a different cohort.



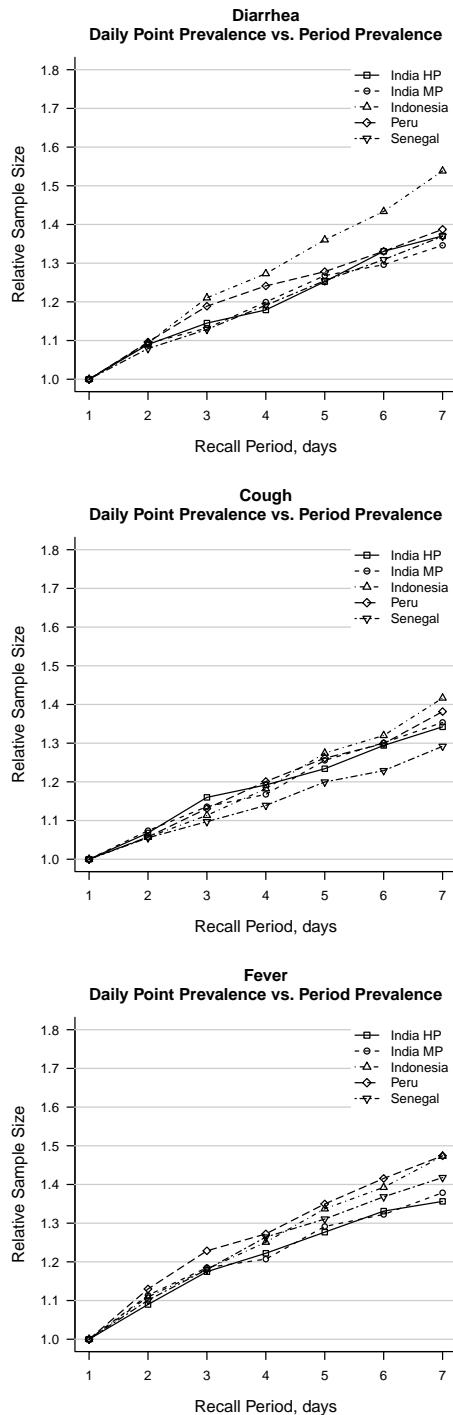
Web Figure 9: Bias, variance, and mean squared error (MSE) of the prevalence ratio of cough estimated for three risk factors (anemic, stunted, underweight) using period prevalence measured over different recall periods. Each row includes results from a different cohort.



Web Figure 10: Bias, variance, and mean squared error (MSE) of the prevalence ratio of fever estimated for three risk factors (anemic, stunted, underweight) using period prevalence measured over different recall periods. Each row includes results from a different cohort.



Web Figure 11: Relative sample size required for the use of daily prevalence versus period prevalence over different recall periods. Calculations use empirical prevalence and correlation estimates from the five cohorts (Web Tables 1-6). The relationships are invariant to assumptions about the strength of association (relative risk), the number of measurements per child, or the outcome correlation between visits.



Web Tables

Web Table 1

DIARRHEA

Daily Point Prevalence and Period Prevalence

	D 0	A 1	Y 2	4	O 5	F 6	7	R 8	E 9	C 10	A 11	L 12	L 13	14
Daily Point Prevalence (%)														
India HP	1.6	2.5	3.1	2.9	2.0	2.0	1.9	1.9	1.3	1.1	1.1	0.5	0.5	0.4
India MP	4.1	6.5	8.0	7.5	6.4	6.4	6.2	6.6	5.7	3.8	3.1	2.3	2.7	2.4
Indonesia	3.0	4.1	3.7	3.7	3.0	2.7	2.6	3.1	1.6	1.5	1.5	1.0	0.9	0.9
Peru	5.4	8.3	8.5	8.9	7.8	7.2	7.2	7.2	3.8	2.7	2.3	1.9	2.1	1.9
Senegal	4.5	7.9	9.0	8.6	7.0	6.3	5.4	4.7	3.8	3.3	2.8	2.0	2.0	1.9
Period Prevalence (%)														
India HP	-	2.5	3.4	4.2	4.6	5.2	5.8	6.3	6.3	6.6	6.8	6.8	6.9	6.9
India MP	-	6.5	8.8	10.0	11.2	12.6	13.4	14.4	15.2	15.7	15.9	16.3	17.0	17.3
Indonesia	-	4.1	4.8	5.9	6.2	6.7	7.2	8.2	8.4	8.6	8.9	9.1	9.2	9.4
Peru	-	8.3	10.4	12.6	14.3	15.7	17.0	18.3	18.7	19.0	19.3	19.4	19.7	19.9
Senegal	-	7.9	9.9	11.1	12.1	13.0	13.7	14.4	14.7	15.0	15.2	15.4	15.6	15.9

Peru N=3708, India HP N=2058, India MP N=2153, Indonesia N=2098, Senegal N=2174.

Web Table 2

COUGH

Daily Point Prevalence and Period Prevalence

	D 0	A 1	Y 2	4	O 5	F 6	7	R 8	E 9	C 10	A 11	L 12	L 13	14
Daily Point Prevalence (%)														
India HP	12.1	15.0	14.9	15.1	12.8	11.2	9.6	8.2	5.5	4.9	4.4	3.1	3.1	2.6
India MP	6.8	7.9	9.0	8.7	7.3	6.8	6.6	6.5	4.7	3.1	2.6	2.8	2.6	2.5
Indonesia	15.7	18.0	17.9	15.9	13.9	13.5	12.3	12.9	6.6	6.4	6.2	4.9	5.0	4.7
Peru	20.9	23.5	22.4	21.7	20.2	19.3	18.0	17.5	9.8	7.8	7.1	6.0	5.9	4.9
Senegal	6.9	10.7	11.5	11.1	9.9	9.1	8.1	8.0	6.2	5.4	4.7	3.9	3.8	3.2
Period Prevalence (%)														
India HP	-	15.0	17.0	19.8	21.4	22.5	23.6	24.4	24.9	25.4	25.9	26.3	26.7	27.0
India MP	-	7.9	9.8	11.4	12.1	13.5	14.2	15.0	15.3	15.7	16.0	16.4	17.0	17.3
Indonesia	-	18.0	19.9	21.2	22.5	24.4	25.2	27.0	27.7	28.0	28.6	28.7	28.9	29.0
Peru	-	23.5	25.3	27.4	29.5	31.2	32.1	34.1	34.9	35.1	35.5	35.7	36.0	36.1
Senegal	-	10.7	12.4	13.4	14.3	15.5	16.2	17.3	17.9	18.2	18.6	18.8	19.0	19.0

Peru N=3708, India HP N=2058, India MP N=2153, Indonesia N=2098, Senegal N=2174.

Web Table 3

FEVER

Daily Point Prevalence and Period Prevalence

	D 0	A 1	Y 2	4	O 5	F 6	7	R 8	E 9	C 10	A 11	L 12	L 13	14
Daily Point Prevalence (%)														
India HP	9.0	12.8	14.5	14.4	13.3	12.7	11.6	10.3	6.3	5.7	5.2	3.9	4.0	3.7
India MP	5.8	8.4	10.4	11.1	9.5	9.5	8.6	9.1	7.2	5.1	4.3	3.8	4.7	4.4
Indonesia	6.7	12.9	14.3	13.3	11.4	12.1	11.7	12.8	5.9	4.8	4.6	3.3	3.7	3.6
Peru	3.1	6.1	6.6	6.9	5.7	6.1	7.5	8.9	3.5	2.1	1.9	1.3	1.8	1.7
Senegal	9.2	18.0	20.9	21.0	20.7	19.4	17.6	15.8	12.7	10.7	9.7	6.9	7.1	6.6
Period Prevalence (%)														
India HP	-	12.8	16.2	19.7	22.5	25.1	27.6	29.2	29.6	30.5	31.2	32.0	32.8	33.3
India MP	-	8.4	12.0	14.8	16.3	18.6	20.1	21.8	22.7	23.8	24.4	25.5	26.7	27.7
Indonesia	-	12.9	17.0	19.7	22.4	25.7	28.3	31.5	32.2	32.9	33.7	34.2	35.0	35.5
Peru	-	6.1	9.0	11.9	14.1	17.0	20.1	23.5	24.5	25.0	25.5	25.9	26.7	27.4
Senegal	-	18.0	23.4	27.6	31.7	34.7	37.6	39.8	41.9	42.8	44.2	44.9	46.0	47.0

Peru N=3708, India HP N=2058, India MP N=2153, Indonesia N=2098, Senegal N=2174.

Web Table 4
DIARRHEA
Within-child outcome correlation over different recall periods.

	D 1	A 2	Y 3	S 4	5	O 6	F 7	R 8	E 9	C 10	A 11	L 12	L 13	L 14
Daily Point Prevalence (%)														
India HP														
India HP	2.5	3.1	2.9	2.0	2.0	1.9	1.9	1.3	1.1	1.1	0.5	0.5	0.4	0.4
India MP	6.5	8.0	7.5	6.4	6.4	6.2	6.6	5.7	3.8	3.1	2.3	2.7	2.4	2.1
Indonesia	4.1	3.7	3.7	3.0	2.7	2.6	3.1	1.6	1.5	1.5	1.0	0.9	0.8	0.9
Peru	8.3	8.5	8.9	7.8	7.2	7.2	3.8	2.7	2.3	1.9	2.1	2.0	1.9	1.9
Senegal	7.9	9.0	8.6	7.0	6.3	5.4	4.7	3.8	3.3	2.8	2.0	2.0	1.9	1.8
Within-child outcome correlation *														
India HP	--	0.79	0.65	0.55	0.50	0.45	0.41	0.39	0.37	0.36	0.34	0.35	0.34	0.34
India MP	--	0.77	0.71	0.64	0.58	0.54	0.52	0.49	0.44	0.41	0.38	0.35	0.34	0.33
Indonesia	--	0.75	0.64	0.61	0.58	0.55	0.51	0.44	0.41	0.39	0.35	0.33	0.32	0.32
Peru	--	0.75	0.67	0.58	0.52	0.48	0.46	0.41	0.38	0.36	0.35	0.34	0.34	0.34
Senegal	--	0.81	0.76	0.69	0.64	0.60	0.55	0.52	0.50	0.48	0.46	0.44	0.44	0.43

* Within-child outcome correlation in daily point prevalence, including days 1, ..., d , where d is the day of recall.
Peru N=3708, India HP N=2058, India MP N=2153, Indonesia N=2098, Senegal N=2174.

Web Table 5
COUGH
Within-child outcome correlation over different recall periods.

	D 1	A 2	Y 3	S 4	5	O 6	F 7	R 8	E 9	C 10	A 11	L 12	L 13	L 14
Daily Point Prevalence (%)														
India HP														
India HP	15.0	14.9	15.1	12.8	11.2	9.6	8.2	5.5	4.9	4.4	3.1	3.1	2.6	2.5
India MP	7.9	9.0	8.7	7.3	6.8	6.6	6.5	4.7	3.1	2.6	2.3	2.8	2.6	2.5
Indonesia	18.0	17.9	15.9	13.9	13.5	12.3	12.9	6.6	6.4	6.2	4.9	5.0	5.0	4.7
Peru	23.5	22.4	21.7	20.2	19.3	18.0	17.5	9.8	7.8	7.1	6.0	5.9	5.3	4.9
Senegal	10.7	11.5	11.1	9.9	9.1	8.1	8.0	6.2	5.4	4.7	3.9	3.8	3.2	2.9
Within-child outcome correlation *														
India HP	--	0.84	0.75	0.66	0.61	0.57	0.53	0.48	0.45	0.42	0.39	0.37	0.36	0.35
India MP	--	0.83	0.74	0.69	0.63	0.60	0.58	0.54	0.50	0.47	0.44	0.41	0.40	0.39
Indonesia	--	0.87	0.80	0.74	0.69	0.66	0.63	0.55	0.51	0.49	0.47	0.46	0.46	0.46
Peru	--	0.87	0.82	0.76	0.71	0.68	0.65	0.57	0.52	0.49	0.46	0.45	0.45	0.45
Senegal	--	0.88	0.83	0.78	0.72	0.66	0.62	0.58	0.55	0.53	0.51	0.50	0.49	0.49

* Within-child outcome correlation in daily point prevalence, including days 1, ..., d , where d is the day of recall.
Peru N=3708, India HP N=2058, India MP N=2153, Indonesia N=2098, Senegal N=2174.

Web Table 6
FEVER
Within-child outcome correlation over different recall periods.

	D 1	A 2	Y 3	S 4	5	O 6	F 7	R 8	E 9	C 10	A 11	L 12	L 13	L 14
Daily Point Prevalence (%)														
India HP														
India HP	12.8	14.5	14.4	13.3	12.7	11.6	10.3	6.3	5.7	5.2	3.9	4.0	3.7	3.5
India MP	8.4	10.4	11.1	9.5	9.5	8.6	9.1	7.2	5.1	4.3	3.8	4.7	4.6	4.4
Indonesia	12.9	14.3	13.3	11.4	12.1	11.7	12.8	5.9	4.8	4.6	3.3	3.7	3.8	3.6
Peru	6.1	6.6	6.9	5.7	6.1	7.5	8.9	3.5	2.1	1.9	1.3	1.8	1.7	1.8
Senegal	18.0	20.9	21.0	20.7	19.4	17.6	15.8	12.7	10.7	9.7	6.9	7.1	6.6	6.2
Within-child outcome correlation *														
India HP	--	0.78	0.67	0.57	0.51	0.45	0.41	0.37	0.35	0.33	0.31	0.30	0.29	0.29
India MP	--	0.70	0.63	0.58	0.52	0.48	0.45	0.42	0.38	0.36	0.33	0.31	0.29	0.28
Indonesia	--	0.71	0.63	0.54	0.47	0.43	0.39	0.34	0.31	0.29	0.27	0.26	0.26	0.27
Peru	--	0.56	0.46	0.37	0.31	0.28	0.25	0.21	0.18	0.17	0.16	0.13	0.13	0.14
Senegal	--	0.75	0.68	0.60	0.54	0.49	0.45	0.40	0.36	0.34	0.32	0.31	0.30	0.30

* Within-child outcome correlation in daily point prevalence, including days 1, ..., d , where d is the day of recall.
Peru N=3708, India HP N=2058, India MP N=2153, Indonesia N=2098, Senegal N=2174.

WEB APPENDIX 1

SURVEY INSTRUMENTS

We include examples of how to measure illness symptoms in household surveys. The examples include the measurement of diarrhea using both a caregiver-reported definition and a symptom-based definition (1). Investigators can collect other symptoms in a similar fashion. If time permits, we suggest the use of a full seven-day calendar (example 1). If time is limited, then we suggest the use of a two-day calendar, plus a question to collect 7-day period prevalence (example 2). In each example we include a suggestion for how to evaluate whether reporting is differential by group. The final section includes the health calendar used in this study.

1 Suggested measurement with daily recall for 7 days

*Ask the caregiver about each symptom and probe over the recall period.
Record a “1” for each day with the symptom and “0” otherwise. -9 = Don’t know.*

		A	B	C	D	E	F	G	H
	Did [NAME] have [SYMPTOM] :	Today 0	Yester 1	2	3	4	5	6	7
1	Diarrhea (local vernacular)								
2	3 or more bowel movements in 24 hours								
3	Watery or soft stool (unformed)								
4	Blood in the stool								
		0	1	2	3	4	5	6	7

To determine if reporting is differential by group, investigators can plot a measure of relative daily reporting for each group, defined as the daily point prevalence divided by the average point prevalence in days 1-2 (see Methods and Figure 1 for details). If investigators desire a statistical test to determine if the relative daily reporting curves differ between groups, then we suggest taking the difference between the curves, and bootstrapping the dataset to calculate percentile-based 95% confidence intervals for the difference curve. If the confidence interval around the curve excludes 0, then it would suggest that reporting is differential. The bootstrap should use the same sampling approach that was used to collect the data (2). Traditional statistical tests for contingency tables (e.g., Chi-square or Fisher’s Exact) would not be valid in this context because reporting is not independent across days of recall. In this study, children were also not independent (within household and village). Investigators could also use the CT ratio method, which we describe in the next section.

2 Suggested measurement with daily recall for 2 days and a 7-day period prevalence measure

Ask the caregiver about each symptom and probe over the recall period.

Record a “1” for each day with the symptom and “0” otherwise. -9 = Don’t know.

	Did [NAME] have [SYMPTOM] :	A Today	B Yesterday	C Day before Yesterday	D In the last 7 days (since this day last week)
1	Diarrhea (local vernacular)				
2	3 or more bowel movements in 24 hours				
3	Watery or soft stool (unformed)				
4	Blood in the stool				

To test for differential reporting by group, calculate the current to terminated (CT) ratio for each group. These calculations follow those outlined in (3). Let C be sum of individuals with the symptom on the day before the survey (column B = 1). Let T be the sum of terminated cases for the six-day period that starts on day 7 and ends on day 1 of recall. T is calculated by counting children who were ill at some time in the past seven days (column D = 1), but are not ill on day 1 of recall (column B=0). The CT ratio = C/T .

If investigators desire a statistical test to determine if the CT ratio is statistically different between groups, we suggest calculating the difference in the CT ratio between groups and then using a bootstrap to estimate a percentile-based 95% confidence interval for the difference. The bootstrap should repeat whatever sampling procedure led to the observed data (2). If the confidence interval for the difference in the CT ratio excludes 0, then there would be evidence for differential reporting error.

3 Health calendar used in this study, modeled after Goldman et al. (4)

Administered to each primary caregiver of children **under 5** (up to, but not after, the child's fifth birthday).
(The primary caregiver is the person the child spends the most time with. This is often the mother.)

(REPEAT FOR EACH CHILD < 5 YEARS OLD)														
CHILD ID CODE: [] NAME _____														
Now I would like to ask about the health of [NAME] in the last 14 days.														
In the last 14 days, did he/she have: DK : -99 YES : 1 NO : 2	1 Fever?	2 Constant Cough?	3 Congestion?	4 Panting/ wheezing/ difficulty breathing?	5 Stomach pain or cramps?	6 Nausea?	7 Vomit?	8 3 or more bowel movements in one day and one night?	9 Watery or soft stool?	10 Mucus or Blood in the stool?	11 Refuse to feed / eat?	12 Abrasion, scrapes	13 Skin itching on the body or scalp?	14 Do you think that [Symptoms] are / were serious?
	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
When did (SYMPTOM) begin?	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
days ago 1 OR weeks ago 2	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	1 [] []	
How many days did (SYMPTOM) last?	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
days ago 14														14
13														13
12														12
11														11
10														10
9														9
8														8
7														7
6														6
5														5
4														4
3														3
2														2
Yester. 1														1
Today 0														0

ALWAYS USE THE FOLLOWING CODES FOR NON-RESPONSE: (-99) Don't know. (-98) Refuse to answer. (-97) Not applicable. (-96) Other (Specify _____).

NOTE: Pilot testing since this study was completed suggests that the format used in the first two examples is easier for field staff to administer than the health calendar on this page. We have included this example for context and completeness.

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4. Goldman N, Vaughan B, Pebley AR. The use of calendars to measure child illness in health interview surveys. *Int J Epidemiol.* 1998;27(3):505-512.

WEB APPENDIX 2
RESULTS FOR ADJUSTED ANALYSES USING LOG-BINOMIAL REGRESSION

Methods

In our primary analysis, we chose to use a non-parametric ratio of means as our estimator of the prevalence ratio (PR) to calculate the bias, variance, and mean squared error (MSE) for that parameter with between 1-14 days of recall. In many studies, particularly observational studies, investigators will want to use an estimator for the PR that allows them to adjust for potentially important covariates (either to reduce confounding or to reduce variance). A convenient estimator for the PR is a log-binomial regression model [1], where the mean of the dichotomous outcome, Y , is modeled as a function of the dichotomous exposure, X , and vector of covariates, \mathbf{C} .

$$\log E[Y|X, \mathbf{C}] = \alpha + \beta X + \gamma \mathbf{C} \quad (1)$$

After fitting the model using maximum likelihood, with dichotomous X the parameter $\exp(\hat{\beta})$ estimates the PR. We repeated our calculations by estimating the PR for the three dichotomous risk factors in our primary analysis: the child was anemic ($Hb < 110$ g/l) versus not anemic, the child was stunted (height-for-age $Z < -2$) versus not stunted, and the child was underweight (weight-for-age $Z < -2$) versus not underweight. We estimated the PR using the model in equation 1 with (adjusted) and without (unadjusted) a vector of covariates (\mathbf{C}) that included: child characteristics (age, sex, currently breastfeeding), and household characteristics (has electricity, has soil floor, uses biofuel to cook, has JMP-defined [2] improved sanitation, has JMP-defined [2] improved water supply). In this secondary analysis, we repeated all of the analyses in the main text, which included three outcomes (diarrhea, cough, fever) in the five cohorts.

As in the primary analysis, we assumed that the PR estimated using a 2 day recall period was an unbiased estimate of the true PR. We then calculated bias for each recall period using this assumption. We calculated the SEs of the PR for each recall period using Huber-White robust “sandwich” estimator, clustered at the level of village-clusters [3]. We calculated the MSE using the standard approach described in the main text.

Results

The PR estimated with different recall periods was highly consistent between the three estimators. We show representative results for diarrhea and the risk factor of underweight ($WAZ < -2$) compared to not underweight – the PR across the three estimator was qualitative very similar (Figure A1).

The bias, variance (SEs), and MSE of the PR with different recall periods were also very similar for the three estimators. Figure A2 shows representative results for diarrhea, reporting normalized measures of bias, variance, and MSE of the PR for underweight children compared to children who were not underweight. The unadjusted estimators are virtually identical for all summary measures, and the

adjusted model produces estimates that were highly consistent with unadjusted estimates across the scenarios that we considered.

Figure A1: Prevalence ratio (PR) of diarrhea for children who are underweight (weight-for-age $Z < -2$) versus not underweight in the five cohorts (rows). The columns include three estimators: non-parametric (used in the main text), unadjusted log-binomial model, and adjusted log-binomial model. Vertical lines mark 95% confidence intervals. A solid horizontal line marks the PR with 2 days of recall (assumed unbiased in the analysis).

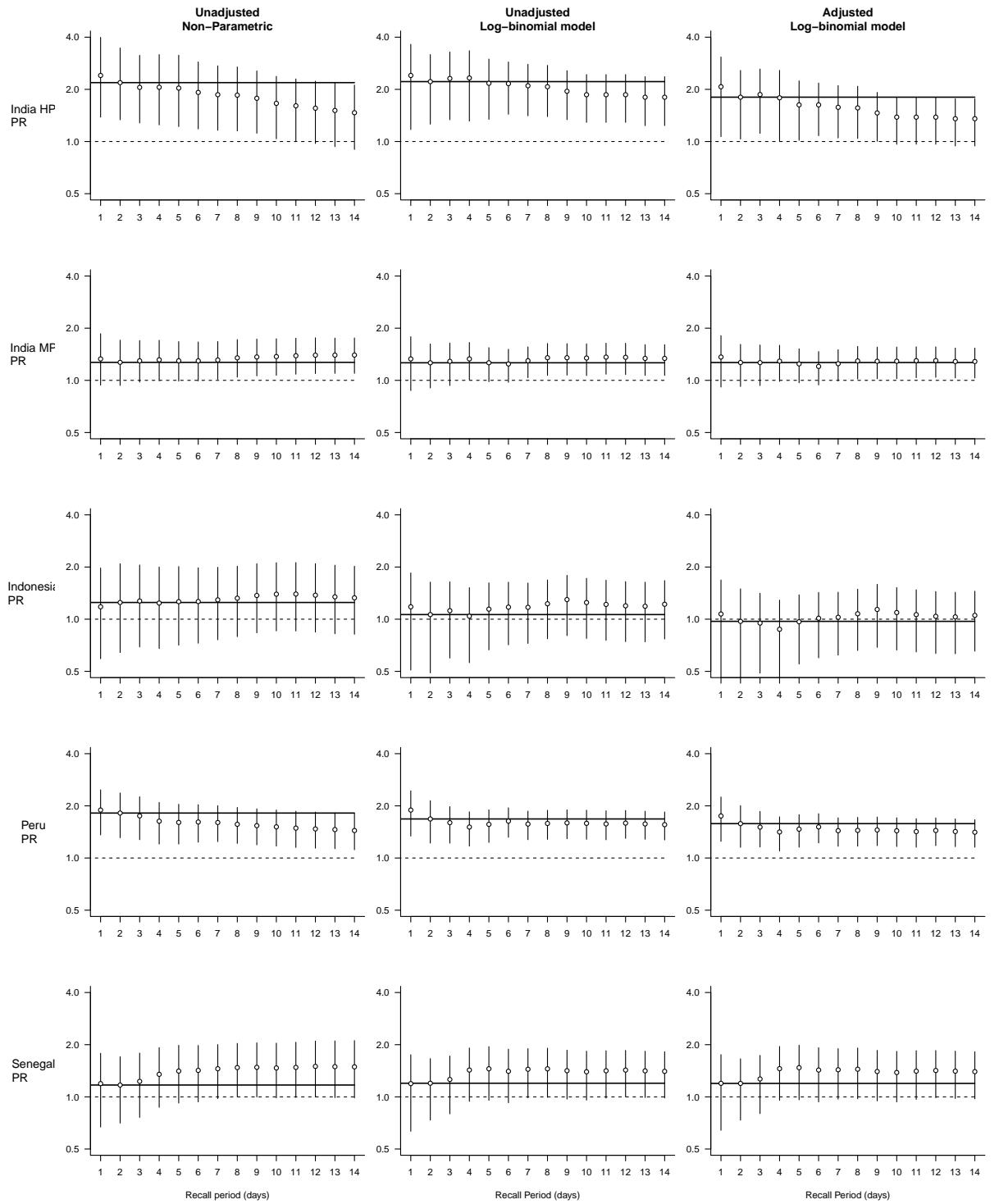
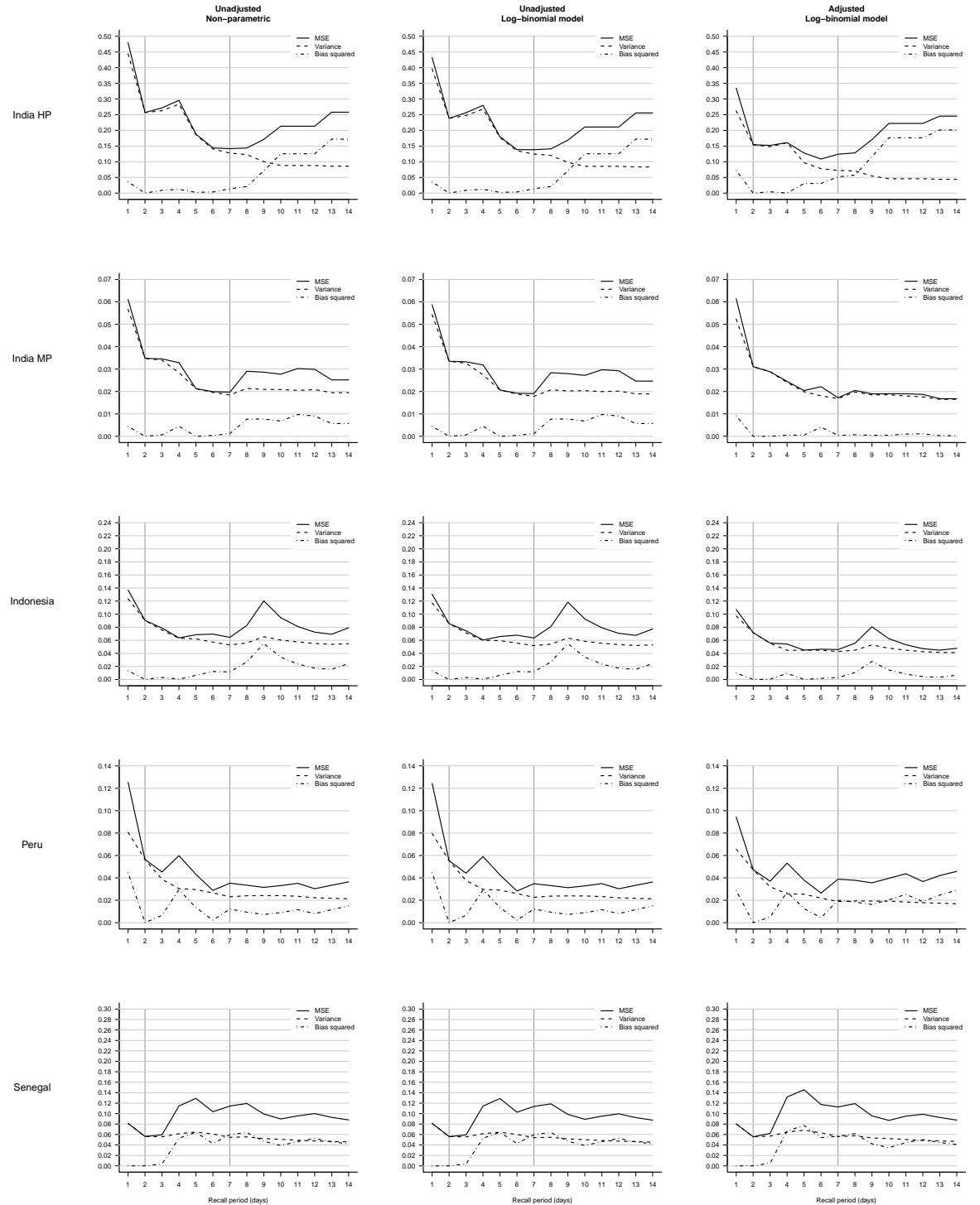


Figure A2: Summary of bias squared, variance, and mean squared error for the prevalence ratio of diarrhea among children who are underweight (weight-for-age Z [WAZ] < -2) versus not underweight. The columns include three estimators: non-parametric (used in the main text), unadjusted log-binomial model, and adjusted log-binomial model.



WEB APPENDIX 3
 PARAMETERS OF INTEREST ESTIMATED WITH PERIOD PREVALENCE OVER
 DIFFERENT RECALL PERIODS

Definitions.

The period prevalence is defined as the probability that an individual had the disease at any time during the period of interest. In caregiver-reported illness measurement, interviewers typically measure period prevalence by asking the caregiver whether the child has had a symptom at any time over the recall period. As in the main text, let $Y(t)$ be a binary indicator of disease on day t for recall period $1, \dots, t$. For each individual, let $Y^*(T) = \max[Y(1), Y(2), \dots, Y(T)]$ be an indicator of any disease during the recall period T . The period prevalence can then be estimated as $E[Y^*(T)]$.

Theoretically, the period prevalence, $E[Y^*(T)]$, is equal to the sum of prevalent cases at the beginning of the period, $C(0)$, plus the incident cases over the period, $C(1) + \dots + C(T)$, divided by the population size at the beginning of the period, $N(0)$.

$$E[Y^*(T)] = [C(0) + C(1) + \dots + C(T)]/N(0) \quad (2)$$

The point prevalence of a disease, π , is the probability that an individual has the disease at any point in time. The incidence density of disease, I , is the number of new (incident) cases divided by the person-time at risk. It has been shown that when π is small and a population is at steady state, so that the incident cases equal the terminated cases over a period, the following is a reasonable approximation for the period prevalence [4, pg 122]:

$$E[Y^*(T)] \approx \pi + I \cdot T \quad (3)$$

Let i index groups in a comparison (for $i = 1, 2$). As above, let $E[Y_i^*(T)]$ denote the period prevalence of disease, let π_i be the daily point prevalence of disease, and let I_i be the incidence density of disease for group i . I_i is assumed to be constant over the period $(1, \dots, T)$, which is very reasonable for recall periods up to 14 days ($T = 14$).

Result 1. Prevalence Ratio estimated with period prevalence.

From equation 3, the prevalence ratio (PR) between groups estimated using period prevalence with recall period T is:

$$\begin{aligned} PR_T &= \frac{E[Y_1^*(T)]}{E[Y_2^*(T)]} \\ &= \frac{\pi_1 + I_1 \cdot T}{\pi_2 + I_2 \cdot T} \end{aligned} \quad (4)$$

This straightforward result shows that the PR measured with period prevalence is not constant over different recall periods: it varies according to the ratio of the

incidence in each group multiplied by the recall period. However, as we show below, it will be reasonably constant under conditions similar to caregiver reported illness with recall periods up to 14 days (in contrast to the risk difference).

Result 2. Risk Difference estimated with period prevalence.

From equation 3, the risk difference (RD) between groups estimated using period prevalence with recall period T is:

$$\begin{aligned} RD_T &= E[Y_1^*(T)] - E[Y_2^*(T)] \\ &= (\pi_1 + I_1 \cdot T) - (\pi_2 + I_2 \cdot T) \\ &= (\pi_1 - \pi_2) + (I_1 - I_2)(T) \end{aligned} \quad (5)$$

This result shows that even if an intervention leads to a constant reduction in the incidence density of disease between two groups, the RD estimated using period prevalence increases in magnitude in proportion to the difference in incidence density ($I_1 - I_2$) and the recall period length (T). Thus, differences in period prevalence estimated over different recall periods estimate fundamentally different quantities that increase in magnitude (either positive or negative) with longer recall periods.

Example.

To make the relationships above more concrete, consider the following example. In an control group, the incidence of cough is estimated to be 5 episodes per child-year, and in an intervention group the incidence of cough is estimated to be 4 episodes per child-year. The daily incidence density, I , in the two groups is thus $5/365 = 0.01370$ and $4/365 = 0.01096$, respectively. Assume both groups have a mean episode duration, D , of 3 days. For a population in steady state, the point prevalence, π , can be estimated from incidence and duration [5, eq. 2]:

$$\hat{\pi} = \frac{I \cdot D}{1 + I \cdot D} \quad (6)$$

The point prevalence in the control group is $0.01370 * 3 / (1 + 0.01370 * 3) = 3.9\%$ and the point prevalence in the intervention group is $0.01096 * 3 / (1 + 0.01096 * 3) = 3.2\%$. In this hypothetical example based on reasonable parameters for episode incidence and duration, and an incidence density ratio of 0.80, the estimates of the risk difference and prevalence ratio parameters calculated with period prevalence using the equations above are summarized in the table below.

The magnitude of the RD changes greatly with recall period because the baseline risk increases greatly with longer recall periods. In contrast, the PR remains relatively constant over a 14 day recall period, and the PR is close to the incidence density ratio. This result applies generally for conditions typical of caregiver reported illnesses like diarrhea, cough, and fever. Figure A3 shows that the PR is approximately constant for a wide range of baseline incidence levels.

Figure A3: Prevalence ratio estimated over difference recall periods using period prevalence with different underlying disease incidence (episodes per year) and a true incidence density ratio of 0.80. Estimates are calculated using approach described above.

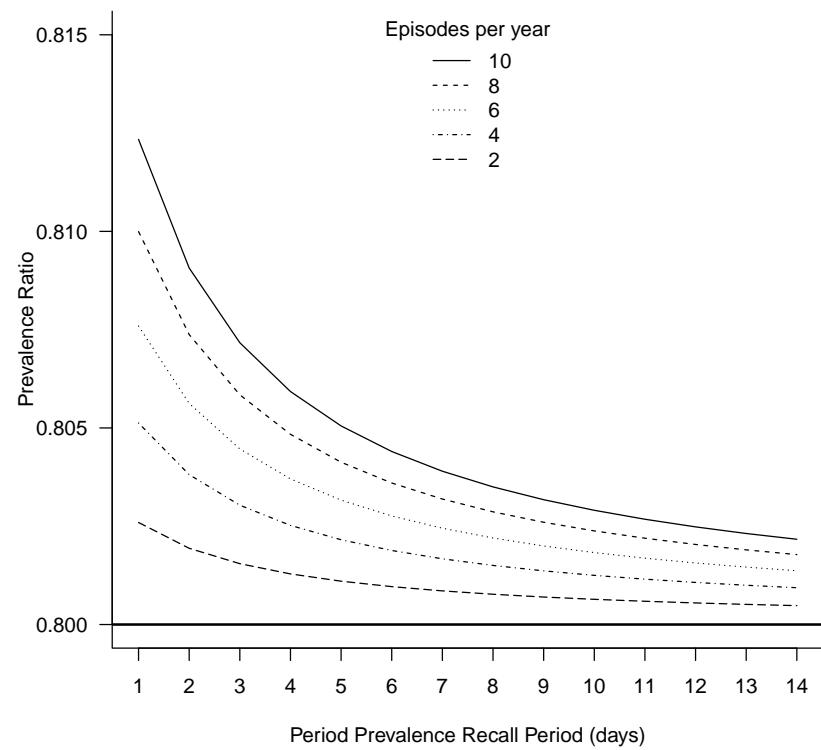


Table A1: Period prevalence, Risk Difference (RD) and Prevalence Ratio (PR) quantities calculated with different recall periods described in Appendix 1.

Recall Period (days)	Control period prev.	Intervention period prev.	RD	PR
1	0.039	0.032	-0.008	0.806
2	0.053	0.043	-0.010	0.805
3	0.067	0.054	-0.013	0.804
4	0.081	0.065	-0.016	0.803
5	0.094	0.076	-0.019	0.803
6	0.108	0.087	-0.021	0.802
7	0.122	0.098	-0.024	0.802
8	0.135	0.109	-0.027	0.802
9	0.149	0.120	-0.030	0.802
10	0.163	0.130	-0.032	0.802
11	0.176	0.141	-0.035	0.801
12	0.190	0.152	-0.038	0.801
13	0.204	0.163	-0.041	0.801
14	0.218	0.174	-0.043	0.801

WEB APPENDIX 4
EXPECTED BIAS UNDER MISCLASSIFICATION

Reporting errors for caregiver-reported disease can be framed as a problem of outcome misclassification. Here, we summarize the expected bias for estimators of the prevalence ratio and risk difference under differential and non-differential outcome misclassification. We also consider the special case where outcome specificity is perfect (there are no false-positives). The reason this special case is relevant for caregiver-reported illness is that it is typically assumed that caregivers fail to report illness over longer recall periods (i.e., false negatives are the main problem and false positives are uncommon).

Definitions. Let:

D be a binary indicator of true disease status, equal to 1 if diseased and 0 otherwise

D^* be a binary indicator of measured disease status equal to 1 if diseased and 0 otherwise

X be a binary indicator of exposure status for $x \in \{1, 2\}$.

p_i is the true prevalence in group $i = P(D = 1|X = i)$

\hat{p}_i is the estimated prevalence in group $i = P(D^* = 1|X = i)$

ϕ_i is the probability of a false positive for group $i = P(D^* = 1|D = 0, X = i)$

ψ_i is the probability of a false negative for group $i = P(D^* = 0|D = 1, X = i)$

For the purpose of this article, assume that group status (exposure classification), X , is measured without error, but that disease status could be measured with error according to the false positive and false negative probabilities defined above. As we show below, if misclassification is differential by group the bias depends on many terms and is, in general, unpredictable [6, 7]. When misclassification is non-differential, estimated parameters may be unbiased or biased toward the null.

Result 1. Expected bias of the Prevalence Ratio under misclassification.

The expected value of the prevalence ratio (PR) allowing for nondifferential misclassification error is:

$$\begin{aligned} E(\hat{p}_1/\hat{p}_2) &= \frac{p_1(1 - \psi_1) + (1 - p_1)\phi_1}{p_2(1 - \psi_2) + (1 - p_2)\phi_2} \\ &= \frac{p_1(1 - \psi_1 - \phi_1) + \phi_1}{p_2(1 - \psi_2 - \phi_2) + \phi_2} \end{aligned} \tag{7}$$

Under the assumption that the measurement has perfect specificity and there are no false positives (e.g., that symptoms are only forgotten and under-reported), then $\phi_1 = \phi_2 = 0$, and the bias term simplifies to:

$$E(\hat{p}_1/\hat{p}_2) = \frac{p_1(1 - \psi_1)}{p_2(1 - \psi_2)} \quad (8)$$

This means that if symptoms are only forgotten and under-reported, the PR is biased in proportion to the relative sensitivity between the two groups. In this case, the sensitivity is estimated by the relative daily reporting calculated in the main article. As long as reporting error is similar for the two groups the PR will be approximately unbiased.

If misclassification is nondifferential by group, then the bias term cancels from equation (8) and the PR is unbiased.

Result 2. Expected bias of the Risk Difference under misclassification.

Analogous with results from the last section, the expected value of the risk difference (RD) allowing for nondifferential misclassification is [6]:

$$\begin{aligned} E(\hat{p}_1 - \hat{p}_2) &= [p_1(1 - \psi_1) + (1 - p_1)\phi_1] - [p_2(1 - \psi_2) + (1 - p_2)\phi_2] \\ &= p_1(1 - \psi_1 - \phi_1) - p_2(1 - \psi_2 - \phi_2) + (\phi_1 - \phi_2) \end{aligned} \quad (9)$$

Under the assumption that the measurement has perfect specificity and there are no false positives (e.g., that symptoms are only forgotten and under-reported, but never over-reported), then $\phi_1 = \phi_2 = 0$, and the bias term simplifies to:

$$E(\hat{p}_1 - \hat{p}_2) = p_1(1 - \psi_1) - p_2(1 - \psi_2) \quad (10)$$

In the special case where misclassification is nondifferential ($\psi_1 = \psi_2 = \psi$ and $\phi_1 = \phi_2 = \phi$), then equation (9) simplifies to:

$$E(\hat{p}_1 - \hat{p}_2) = (p_1 - p_2)(1 - \psi - \phi) \quad (11)$$

Under stronger assumptions that misclassification is nondifferential and there are no false positives ($\phi = 0$) then the expression further simplifies to:

$$E(\hat{p}_1 - \hat{p}_2) = (p_1 - p_2)(1 - \psi) \quad (12)$$

Thus, in the special case of no false positives and nondifferential misclassification, the bias in the RD is directly proportional to the sensitivity of the measurement $(1 - \psi)$. Since $0 \leq \psi \leq 1$, the bias is toward the null.

References for Web Appendices 2-4

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Optimal recall period for caregiver-reported illness in risk factor and intervention studies: a multicountry study

Web Appendix 5

Sheet 1 Cough: prevalence ratios (PR), risk differences (RD), bias, variance, and MSE estimates (period prevalence + point prevalence) from the five cohorts

Sheet 2 Diarrhea: prevalence ratios (PR), risk differences (RD), bias, variance, and MSE estimates (period prevalence + point prevalence) from the five cohorts

Sheet 3 Fever: prevalence ratios (PR), risk differences (RD), bias, variance, and MSE estimates (period prevalence + point prevalence) from the five cohorts

Sheet 4 Cough: calculated sample sizes for different recall periods

Sheet 5 Diarrhea: calculated sample sizes for different recall periods

Sheet 6 Fever: calculated sample sizes for different recall periods

In all sheets, the first row of the tables is the recall period in days (1-14)

Sheet 1

Cough, Anemic vs. Not Anemic

PR period prevalence (File created by recall-empirical-tables.R / cough, anemia)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.5176	1.4866	1.246	1.2179	1.1854
2	1.4987	1.3039	1.2197	1.194	0.9177
3	1.4804	1.312	1.2201	1.1934	0.9479
4	1.4474	1.3002	1.2121	1.1595	0.98
5	1.4621	1.3275	1.1657	1.1495	0.9335
6	1.5266	1.3448	1.14	1.1166	0.9842
7	1.5504	1.3383	1.1298	1.1018	1.0057
8	1.5344	1.3655	1.1232	1.1101	1.0138
9	1.5254	1.3535	1.1422	1.1082	0.9875
10	1.5372	1.3057	1.1294	1.1211	1.01
11	1.4909	1.3182	1.1386	1.1134	1.0288
12	1.4765	1.3112	1.1362	1.1042	1.0438
13	1.4722	1.314	1.1392	1.107	1.0438
14	1.4722	1.314	1.1392	1.107	1.0438

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1583	0.2668	0.1578	0.0875	0.421
2	0.1459	0.2204	0.1485	0.0836	0.2479
3	0.1225	0.1911	0.1436	0.0787	0.2551
4	0.1067	0.1785	0.1411	0.0747	0.2756
5	0.1048	0.1725	0.1263	0.0713	0.2425
6	0.1114	0.173	0.1181	0.0678	0.2569
7	0.1167	0.1635	0.111	0.0622	0.2447
8	0.1165	0.1659	0.1115	0.0613	0.263
9	0.1137	0.1591	0.1128	0.0603	0.2452
10	0.1123	0.154	0.1124	0.0608	0.2499
11	0.1036	0.1554	0.1127	0.0613	0.2557
12	0.1002	0.1532	0.1112	0.0599	0.2596
13	0.0996	0.1531	0.1114	0.0599	0.2596
14	0.0996	0.1531	0.1114	0.0599	0.2596

PR period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0189	0.1827	0.0262	0.024	0.2676
2	0	0	0	0	0
3	-0.0183	0.0081	0.0003	-0.0006	0.0301
4	-0.0513	-0.0038	-0.0076	-0.0345	0.0623
5	-0.0366	0.0235	-0.0541	-0.0445	0.0158
6	0.0279	0.0409	-0.0797	-0.0774	0.0665
7	0.0517	0.0344	-0.0899	-0.0922	0.0879
8	0.0357	0.0616	-0.0965	-0.0839	0.096
9	0.0267	0.0496	-0.0775	-0.0858	0.0698
10	0.0384	0.0017	-0.0904	-0.0729	0.0923
11	-0.0078	0.0142	-0.0812	-0.0806	0.1111
12	-0.0223	0.0073	-0.0836	-0.0897	0.1261
13	-0.0265	0.0101	-0.0805	-0.087	0.1261
14	-0.0265	0.0101	-0.0805	-0.087	0.1261

PR period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	1.2639	14.0097	2.1503	2.0069	29.1592
2	0	0	0	0	0
3	1.2234	0.6211	0.0254	0.0518	3.2849
4	3.4223	0.2899	0.6249	2.8926	6.7829
5	2.4422	1.8028	4.4344	3.7277	1.72

Cough, Stunted vs. Not Stunted

PR period prevalence (File created by recall-empirical-tables.R / cough, haz)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.6854	1.1803	1.1481	1.1844	1.2319
2	1.5906	1.2321	1.179	1.2197	1.2769
3	1.5532	1.1732	1.2032	1.2159	1.196
4	1.5534	1.2071	1.1931	1.2076	1.145
5	1.5018	1.1767	1.1863	1.2203	1.1707
6	1.4697	1.2056	1.1735	1.2398	1.1093
7	1.4454	1.1849	1.209	1.2336	1.1103
8	1.4275	1.1867	1.2162	1.232	1.1441
9	1.4146	1.1803	1.2084	1.2267	1.1273
10	1.4104	1.1603	1.2013	1.2187	1.1498
11	1.4269	1.1912	1.2044	1.2107	1.1847
12	1.4307	1.1662	1.2022	1.2128	1.1714
13	1.4346	1.1477	1.2078	1.2172	1.1714
14	1.4346	1.1477	1.2078	1.2158	1.1714

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1787	0.2027	0.1228	0.0688	0.2142
2	0.1619	0.1891	0.1159	0.068	0.202
3	0.1393	0.1612	0.1115	0.0644	0.1822
4	0.1316	0.1656	0.1058	0.0628	0.1756
5	0.1254	0.1448	0.1004	0.0628	0.1746
6	0.1188	0.1432	0.1004	0.0601	0.1659
7	0.1154	0.1374	0.0962	0.0564	0.1651
8	0.1105	0.1313	0.0945	0.0557	0.1709
9	0.1074	0.1301	0.0934	0.0555	0.1691
10	0.1044	0.1327	0.0922	0.0547	0.1678
11	0.1018	0.1333	0.0911	0.0544	0.1656
12	0.102	0.1222	0.0914	0.0528	0.1636
13	0.1027	0.1176	0.0916	0.0532	0.1636
14	0.1027	0.1176	0.0916	0.0531	0.1636

PR period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0949	-0.0518	-0.0309	-0.0353	-0.045
2	0	0	0	0	0
3	-0.0373	-0.0589	0.0241	-0.0038	-0.0809
4	-0.0371	-0.025	0.0141	-0.0121	-0.1319
5	-0.0888	-0.0553	0.0073	0.0006	-0.1062
6	-0.1209	-0.0264	-0.0056	0.02	-0.1676
7	-0.1452	-0.0472	0.03	0.0139	-0.1666
8	-0.1631	-0.0454	0.0372	0.0123	-0.1328
9	-0.176	-0.0518	0.0294	0.007	-0.1495
10	-0.1802	-0.0718	0.0222	-0.001	-0.1271
11	-0.1637	-0.0409	0.0253	-0.009	-0.0922
12	-0.1598	-0.0659	0.0231	-0.0069	-0.1055
13	-0.156	-0.0844	0.0288	-0.0025	-0.1055
14	-0.156	-0.0844	0.0288	-0.0039	-0.1055

PR period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	5.9644	4.2005	2.6234	2.8926	3.5217
2	0	0	0	0	0
3	2.3465	4.7811	2.0469	0.3077	6.3351
4	2.3338	2.0282	1.1971	0.9906	10.3267
5	5.5833	4.4917	0.6164	0.051	8.3139

Cough, Underweight vs. Not Underweight

PR period prevalence (File created by recall-empirical-tables.R / cough, waz)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.7249	1.5838	1.1706	1.2113	1.2622
2	1.6095	1.7351	1.1722	1.2233	1.258
3	1.5948	1.5926	1.1906	1.1845	1.2293
4	1.6076	1.5438	1.165	1.1526	1.1877
5	1.5785	1.4686	1.111	1.1679	1.2326
6	1.5476	1.4678	1.103	1.1972	1.2036
7	1.5209	1.5314	1.1429	1.2401	1.1813
8	1.4944	1.5378	1.1415	1.2431	1.2585
9	1.4766	1.5669	1.1255	1.25	1.2403
10	1.4519	1.5643	1.1162	1.237	1.2697
11	1.4579	1.6239	1.1397	1.2274	1.252
12	1.4714	1.5722	1.1286	1.2331	1.2382
13	1.4814	1.5763	1.1391	1.23	1.2382
14	1.4814	1.5763	1.1391	1.2289	1.2382

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2208	0.2365	0.153	0.096	0.2272
2	0.1867	0.2232	0.1429	0.0947	0.2018
3	0.1592	0.195	0.1397	0.0892	0.1922
4	0.1615	0.1729	0.1321	0.0799	0.1807
5	0.1556	0.151	0.1209	0.0753	0.184
6	0.1517	0.1524	0.1177	0.0707	0.1747
7	0.1411	0.1549	0.1132	0.0732	0.1668
8	0.1369	0.1548	0.1121	0.0719	0.1785
9	0.1343	0.1538	0.1101	0.0727	0.1764
10	0.1329	0.1499	0.1065	0.0717	0.1811
11	0.1291	0.1575	0.109	0.0713	0.1792
12	0.1273	0.1513	0.1082	0.0705	0.1771
13	0.1295	0.1499	0.1088	0.0	

6	1.863	3.1345	6.5343	6.4825	7.2432
7	3.4508	2.6372	7.3743	7.7179	9.5814
8	2.3842	4.7218	7.9118	7.0259	10.4651
9	1.7796	3.8015	6.3554	7.1851	7.6012
10	2.5653	0.1318	7.4105	6.1082	10.056
11	0.5202	1.0923	6.6557	6.7487	12.1016
12	1.485	0.5564	6.8529	7.5167	13.7382
13	1.7703	0.772	6.6032	7.2888	13.7382
14	1.7703	0.772	6.6032	7.2888	13.7382

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1594	0.3233	0.16	0.0907	0.4988
2	0.1459	0.2204	0.1485	0.0836	0.2479
3	0.1238	0.1913	0.1436	0.0787	0.2568
4	0.1184	0.1785	0.1413	0.0823	0.2826
5	0.111	0.1741	0.1374	0.0841	0.243
6	0.1148	0.1778	0.1425	0.1029	0.2653
7	0.1276	0.1671	0.1428	0.1112	0.26
8	0.1219	0.1769	0.1474	0.1039	0.28
9	0.1168	0.1666	0.1369	0.1049	0.2549
10	0.1187	0.154	0.1442	0.095	0.2664
11	0.1039	0.156	0.1389	0.1012	0.2788
12	0.1026	0.1534	0.1391	0.1079	0.2886
13	0.103	0.1534	0.1375	0.1056	0.2886
14	0.103	0.1534	0.1375	0.1056	0.2886

PR period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.1933	2.1528	1.1602	1.1764	4.0487
2	1	1	1	1	1
3	0.7202	0.7533	0.9353	0.8854	1.0733
4	0.6585	0.6563	0.9047	0.9683	1.2993
5	0.5789	0.6245	0.8559	0.1017	0.9609
6	0.619	0.6507	0.9202	1.5137	1.1455
7	0.7648	0.5748	0.925	1.7675	1.0999
8	0.6977	0.6448	0.9855	1.543	1.2755
9	0.6407	0.5716	0.8491	1.5719	1.0572
10	0.6617	0.4882	0.9431	1.2889	1.1548
11	0.5073	0.5014	0.875	1.4646	1.2645
12	0.4945	0.4844	0.8776	1.6637	1.3549
13	0.4986	0.4846	0.8566	1.5949	1.3549
14	0.4986	0.4846	0.8566	1.5949	1.3549

PR daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.5176	1.4866	1.246	1.2179	1.1854
2	1.5054	1.3472	1.2487	1.2064	1.1333
3	1.4839	1.3052	1.2337	1.2082	1.1224
4	1.4906	1.2679	1.2088	1.2043	1.1553
5	1.5215	1.2486	1.1931	1.2016	1.1432
6	1.5587	1.2542	1.1787	1.1906	1.1178
7	1.5909	1.2583	1.1774	1.1889	1.0947
8	1.6113	1.2395	1.1738	1.197	1.1216
9	1.6283	1.2261	1.1742	1.2013	1.1436
10	1.6342	1.2119	1.1696	1.2096	1.1548
11	1.636	1.2148	1.1588	1.213	1.1654
12	1.6394	1.206	1.1521	1.212	1.1849
13	1.6383	1.1942	1.1422	1.2134	1.205
14	1.6371	1.1835	1.133	1.213	1.2218

PR daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
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6	7.6006	2.1439	0.471	1.6438	13.1236
7	9.1262	3.8281	2.5451	1.1422	13.0492
8	10.2546	3.6828	3.1565	1.0103	10.4018
9	11.0656	4.2005	2.4925	0.5734	11.7117
10	11.3264	5.8275	1.8857	0.081	9.9512
11	10.2922	3.3181	2.1482	0.7358	7.2174
12	10.0492	5.3479	1.9632	0.5664	8.2599
13	9.8059	6.8511	2.4437	0.2077	8.2599
14	9.8059	6.8511	2.4437	0.3179	8.2599

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2023	0.2092	0.1266	0.0773	0.2189
2	0.1619	0.1891	0.1159	0.068	0.202
3	0.1442	0.1717	0.1141	0.0645	0.1993
4	0.1367	0.1674	0.1068	0.064	0.2196
5	0.1536	0.155	0.1007	0.0628	0.2043
6	0.1695	0.1456	0.1006	0.0633	0.2358
7	0.1854	0.1453	0.1007	0.0581	0.2345
8	0.197	0.139	0.1016	0.057	0.2164
9	0.2062	0.14	0.0979	0.0559	0.2257
10	0.2082	0.1508	0.0948	0.0547	0.2105
11	0.1928	0.1394	0.0945	0.0551	0.1895
12	0.1896	0.1388	0.0942	0.0532	0.1946
13	0.1868	0.1448	0.096	0.0533	0.1946
14	0.1868	0.1448	0.096	0.0533	0.1946

PR period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.5613	1.2234	1.1936	1.2928	1.175
2	1	1	1	1	1
3	0.7935	0.8238	0.9696	0.9007	0.974
4	0.7128	0.7837	0.8486	0.8857	1.1825
5	0.9003	0.6718	0.7552	0.8528	1.0234
6	1.0957	0.5927	0.7532	0.8676	1.3636
7	1.3117	0.5903	0.7556	0.731	1.3489
8	1.4804	0.5399	0.7686	0.7039	1.1483
9	1.6216	0.5483	0.7137	0.6763	1.2493
10	1.6535	0.6361	0.6696	0.6468	1.0864
11	1.4172	0.5435	0.6654	0.6576	0.8804
12	1.3712	0.5385	0.6614	0.6134	0.9289
13	1.3304	0.586	0.687	0.6138	0.9289
14	1.3304	0.586	0.687	0.6145	0.9289

PR daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.6854	1.1803	1.1481	1.1844	1.2319
2	1.6273	1.2067	1.1714	1.1788	1.2223
3	1.6103	1.2144	1.1667	1.1792	1.191
4	1.5871	1.2421	1.1718	1.1686	1.1671
5	1.5782	1.2632	1.1777	1.1673	1.1802
6	1.5546	1.2596	1.1858	1.1774	1.1806
7	1.5321	1.2477	1.2014	1.1797	1.1757
8	1.5092	1.2233	1.2091	1.1734	1.1786
9	1.4954	1.229	1.2078	1.1698	1.1763
10	1.4691	1.2283	1.1988	1.1701	1.1684
11	1.4676	1.2347	1.1905	1.1643	1.1739
12	1.4733	1.2339	1.1835	1.1595	1.1809
13	1.474	1.2246	1.1798	1.1587	1.1809
14	1.4718	1.2143	1.1746	1.1589	1.1798

PR daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
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6	3.8452	15.4069	5.9048	2.1296	4.322
7	5.5036	11.7399	2.5	1.3799	6.1008
8	7.1741	11.3737	2.6132	1.622	0.0378
9	8.2579	9.6956	3.9794	2.1856	1.4078
10	9.7895	9.8424	4.7713	1.1202	0.9321
11	9.4169	6.4067	2.7731	0.3357	0.4776
12	8.5829	9.3879	3.7171	0.8077	1.5773
13	7.9594	9.1513	2.8239	0.5497	1.5773
14	7.9594	9.1513	2.8239	0.464	1.5773

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2491	0.2807	0.153	0.0967	0.2273
2	0.1867	0.2232	0.1429	0.0947	0.2018
3	0.1599	0.2415	0.1409	0.0972	0.1943
4	0.1615	0.2579	0.1323	0.1066	0.1939
5	0.1587	0.3063	0.1355	0.0934	0.1857
6	0.1638	0.3077	0.1366	0.0754	0.183
7	0.1666	0.2559	0.1169	0.0751	0.1836
8	0.1791	0.2508	0.1162	0	

1	0.1583	0.2668	0.1578	0.0875	0.421
2	0.1559	0.2323	0.1578	0.0868	0.3261
3	0.1394	0.2078	0.1542	0.0862	0.3358
4	0.1279	0.1969	0.1504	0.0846	0.3547
5	0.1238	0.1879	0.1439	0.0825	0.3338
6	0.1229	0.1909	0.1391	0.0813	0.3249
7	0.1265	0.1913	0.1357	0.0799	0.315
8	0.1314	0.187	0.1319	0.0787	0.3284
9	0.1355	0.1843	0.1298	0.0781	0.3356
10	0.1394	0.1828	0.1294	0.0785	0.3425
11	0.1396	0.1853	0.1282	0.0788	0.3495
12	0.1407	0.1856	0.1279	0.0789	0.3557
13	0.141	0.1857	0.1272	0.0796	0.3647
14	0.1419	0.1865	0.1275	0.0803	0.3735

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0122	0.1395	-0.0027	0.0115	0.0521
2	0	0	0	0	0
3	-0.0215	-0.0419	-0.015	0.0018	-0.0109
4	-0.0148	-0.0792	-0.0398	-0.0021	0.0221
5	0.016	-0.0985	-0.0556	-0.0048	0.01
6	0.0533	-0.093	-0.07	-0.0158	-0.0155
7	0.0855	-0.0889	-0.0713	-0.0175	-0.0386
8	0.1058	-0.1076	-0.0749	-0.0095	-0.0117
9	0.1229	-0.121	-0.0744	-0.0051	0.0103
10	0.1288	-0.1353	-0.079	0.0032	0.0215
11	0.1306	-0.1324	-0.0899	0.0066	0.0321
12	0.134	-0.1412	-0.0966	0.0056	0.0516
13	0.1329	-0.153	-0.1064	0.007	0.0717
14	0.1317	-0.1637	-0.1157	0.0066	0.0885

PR daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.813	10.3519	0.2151	0.9571	4.5957
2	0	0	0	0	0
3	1.43	3.1136	1.1993	0.1455	0.9585
4	0.9824	5.8826	3.1883	0.1771	1.9471
5	1.0661	7.3144	4.45	0.3995	0.8798
6	3.5393	6.9043	5.6029	1.3098	1.3651
7	5.6794	6.5955	5.7072	1.4475	3.4067
8	7.0311	7.9903	5.9969	0.7835	1.0325
9	8.1633	8.9851	5.9596	0.4216	0.9073
10	8.5529	10.0396	6.3291	0.2682	1.8956
11	8.677	9.8287	7.1969	0.5445	2.8344
12	8.899	10.4817	7.7324	0.4661	4.5527
13	8.8277	11.3544	8.5246	0.5801	6.3281
14	8.7491	12.1505	9.2656	0.5506	7.811

PR daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1587	0.301	0.1578	0.0882	0.4242
2	0.1559	0.2323	0.1578	0.0868	0.3261
3	0.141	0.212	0.1549	0.0862	0.3359
4	0.1287	0.2123	0.1556	0.0847	0.3554
5	0.1248	0.2122	0.1543	0.0826	0.3339
6	0.134	0.2123	0.1557	0.0829	0.3252
7	0.1527	0.211	0.1533	0.0818	0.3174
8	0.1687	0.2158	0.1517	0.0793	0.3286
9	0.1829	0.2205	0.1496	0.0783	0.3357
10	0.1898	0.2274	0.1516	0.0785	0.3432
11	0.1912	0.2277	0.1566	0.0791	0.351

1	0.1787	0.2027	0.1228	0.0688	0.2142
2	0.1684	0.1951	0.121	0.0688	0.1974
3	0.1511	0.185	0.1172	0.069	0.1884
4	0.1412	0.1872	0.1155	0.0678	0.1869
5	0.139	0.1819	0.1135	0.0669	0.1895
6	0.1381	0.1749	0.1149	0.0669	0.1947
7	0.1344	0.1689	0.1159	0.0658	0.1977
8	0.131	0.1617	0.115	0.0645	0.1997
9	0.1282	0.16	0.1149	0.0637	0.2006
10	0.1253	0.1609	0.1154	0.0633	0.2007
11	0.1234	0.1631	0.1162	0.0632	0.2009
12	0.1241	0.1617	0.1174	0.063	0.2026
13	0.1259	0.1586	0.1193	0.0631	0.2033
14	0.1288	0.1558	0.1218	0.0637	0.2052

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0581	-0.0264	-0.0233	0.0056	0.0096
2	0	0	0	0	0
3	-0.017	0.0077	-0.0047	0.0004	-0.0312
4	-0.0402	0.0354	0.0004	-0.0101	-0.0551
5	-0.0492	0.0565	0.0062	-0.0114	-0.042
6	-0.0727	0.0529	0.0143	-0.0014	-0.0417
7	-0.0952	0.041	0.03	0.0009	-0.0466
8	-0.1181	0.0166	0.0377	-0.0054	-0.0437
9	-0.1319	0.0223	0.0364	-0.009	-0.0459
10	-0.1582	0.0216	0.0274	-0.0087	-0.0538
11	-0.1597	0.0281	0.0191	-0.0145	-0.0484
12	-0.154	0.0272	0.0121	-0.0192	-0.0413
13	-0.1533	0.0179	0.0084	-0.0201	-0.0414
14	-0.1555	0.0077	0.0032	-0.0198	-0.0424

PR daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	3.5721	2.185	1.9916	0.4791	0.7891
2	0	0	0	0	0
3	1.0468	0.6422	0.4005	0.0347	2.5564
4	2.4726	2.9376	0.0314	0.861	4.5117
5	3.0207	4.6811	0.5317	0.9701	3.4375
6	4.4668	4.3869	1.2233	0.1149	3.4091
7	5.8489	3.3993	2.5628	0.0785	3.8132
8	7.2589	1.3796	3.2199	0.4552	3.5752
9	8.1062	1.8482	3.1053	0.7602	3.7583
10	9.7225	1.7884	2.3404	0.7358	4.4055
11	9.816	2.3257	1.6307	1.2304	3.9582
12	9.4618	2.254	1.0331	1.631	3.382
13	9.421	1.4849	0.7185	1.7028	3.3838
14	9.5582	0.6356	0.2733	1.683	3.4722

PR daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1879	0.2044	0.125	0.069	0.2145
2	0.1684	0.1951	0.121	0.0688	0.1974
3	0.152	0.1852	0.1173	0.069	0.191
4	0.1468	0.1905	0.1155	0.0685	0.1949
5	0.1474	0.1905	0.1136	0.0679	0.1941
6	0.1561	0.1827	0.1158	0.0669	0.1991
7	0.1647	0.1738	0.1197	0.0658	0.2032
8	0.1764	0.1625	0.121	0.0647	0.2044
9	0.184	0.1616	0.1205	0.0643	0.2058
10	0.2019	0.1624	0.1186	0.0639	0.2078
11	0.2018	0.1655	0.1178	0.0648	0.2067

1	0.2208	0.2365	0.153	0.096	0.2272
2	0.207	0.2231	0.1404	0.0987	0.2107
3	0.1897	0.2106	0.1406	0.1	0.2053
4	0.1771	0.1978	0.1425	0.0973	0.2042
5	0.1764	0.1834	0.1435	0.0941	0.2055
6	0.1769	0.1761	0.1445	0.0908	0.2028
7	0.1702	0.1752	0.1424	0.0878	0.1978
8	0.1611	0.1756	0.1439	0.0868	0.1996
9	0.1528	0.1812	0.146	0.0885	0.2043
10	0.1462	0.1846	0.148	0.0912	0.2093
11	0.1447	0.1891	0.1512	0.0926	0.212
12	0.1441	0.1915	0.1547	0.0941	0.2157
13	0.1428	0.1935	0.1587	0.096	0.2203
14	0.1421	0.1966	0.1627	0.0979	0.2258

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0	-0.0557	0.0464	-0.0189	-0.0003
2	0	0	0	0	0
3	0.0044	-0.0228	0.0091	0.0038	-0.016
4	-0.0053	-0.0465	0.021	-0.0103	-0.0242
5	-0.0067	-0.0885	0.0299	-0.0276	-0.0082
6	-0.0425	-0.1089	0.0358	-0.0364	-0.0103
7	-0.0735	-0.1003	0.0411	-0.0375	-0.0193
8	-0				

12	0.1942	0.2332	0.1602	0.0791	0.3594
13	0.1938	0.2406	0.1659	0.0799	0.3716
14	0.1936	0.2482	0.1721	0.0805	0.3839

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.0374	1.6798	1.0006	1.0327	1.6917
2	1	1	1	1	1
3	0.8188	0.8334	0.9634	0.9852	1.0611
4	0.682	0.8352	0.9721	0.9502	1.1878
5	0.6414	0.8345	0.956	0.9048	1.0486
6	0.739	0.8358	0.9737	0.9103	0.9946
7	0.96	0.8251	0.9434	0.8869	0.9473
8	1.1718	0.863	0.9237	0.8341	1.0153
9	1.3774	0.9014	0.8992	0.8133	1.0599
10	1.4825	0.9586	0.9234	0.8179	1.1072
11	1.5044	0.9613	0.985	0.8291	1.1581
12	1.5533	1.0079	1.031	0.8289	1.2145
13	1.5458	1.0729	1.1053	0.8463	1.2987
14	1.543	1.1416	1.1902	0.8603	1.3856

RD period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0753	0.0342	0.0406	0.0491	0.0164
2	0.0823	0.0285	0.0411	0.0476	-0.0106
3	0.093	0.0342	0.044	0.0516	-0.0071
4	0.0941	0.0352	0.0457	0.0464	-0.0029
5	0.1012	0.042	0.04	0.0465	-0.0109
6	0.1185	0.0464	0.0353	0.0378	-0.0026
7	0.1276	0.0484	0.0353	0.0351	0.001
8	0.127	0.0532	0.0346	0.0387	0.0024
9	0.1275	0.0528	0.0399	0.0383	-0.0023
10	0.1324	0.0473	0.0374	0.043	0.0018
11	0.1254	0.0505	0.0401	0.0408	0.0053
12	0.124	0.0513	0.0397	0.0379	0.0081
13	0.1238	0.0525	0.0406	0.039	0.0081
14	0.1238	0.0525	0.0406	0.039	0.0081

RD period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0199	0.0156	0.0213	0.0183	0.0238
2	0.0205	0.0182	0.0231	0.0192	0.0291
3	0.02	0.0182	0.0238	0.0196	0.0303
4	0.0192	0.0181	0.0253	0.0206	0.0329
5	0.0197	0.019	0.0262	0.0211	0.035
6	0.0209	0.0199	0.0261	0.0211	0.0352
7	0.0224	0.0202	0.0268	0.0207	0.0348
8	0.0229	0.0206	0.0278	0.0207	0.0383
9	0.023	0.0201	0.0277	0.0205	0.0385
10	0.023	0.0204	0.0288	0.0207	0.0384
11	0.0224	0.021	0.0287	0.0211	0.0386
12	0.0223	0.0216	0.0286	0.021	0.0387
13	0.0223	0.022	0.0285	0.021	0.0387
14	0.0223	0.022	0.0285	0.021	0.0387

RD period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.007	0.0057	-0.0004	0.0015	0.027
2	0	0	0	0	0
3	0.0107	0.0056	0.0029	0.004	0.0035
4	0.0118	0.0067	0.0046	-0.0011	0.0078
5	0.0189	0.0135	-0.0011	-0.001	-0.0002
6	0.0362	0.0179	-0.0058	-0.0098	0.0081

12	0.1978	0.164	0.118	0.0658	0.2068
13	0.1984	0.1596	0.1196	0.0662	0.2075
14	0.202	0.156	0.1218	0.0667	0.2096

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.2447	1.0972	1.0662	1.0046	1.1805
2	1	1	1	1	1
3	0.8146	0.9004	0.939	1.0061	0.9363
4	0.7596	0.9531	0.9114	0.9912	0.9751
5	0.766	0.9525	0.8818	0.972	0.9669
6	0.8585	0.8769	0.9149	0.9449	1.0174
7	0.9557	0.7933	0.9785	0.914	1.0593
8	1.097	0.6938	1.0002	0.8829	1.0725
9	1.1931	0.6856	0.991	0.8738	1.0868
10	1.4363	0.6925	0.961	0.862	1.1085
11	1.4362	0.7193	0.9469	0.8866	1.0964
12	1.3788	0.7062	0.9509	0.9144	1.0973
13	1.3876	0.6687	0.9772	0.9252	1.1052
14	1.438	0.6389	1.013	0.9395	1.1272

RD period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0884	0.0131	0.0258	0.0414	0.024
2	0.088	0.0207	0.0342	0.0527	0.033
3	0.0968	0.0184	0.0411	0.0561	0.0256
4	0.1045	0.0231	0.0417	0.0581	0.0203
5	0.1006	0.0221	0.0437	0.0651	0.0258
6	0.0993	0.0268	0.0421	0.0726	0.0174
7	0.0981	0.0257	0.0541	0.0749	0.0188
8	0.0965	0.0266	0.0572	0.0762	0.0254
9	0.095	0.0262	0.0559	0.0751	0.0228
10	0.0961	0.024	0.0551	0.0733	0.0273
11	0.1011	0.0291	0.0562	0.0712	0.034
12	0.1035	0.0265	0.0561	0.0725	0.0319
13	0.1053	0.024	0.0578	0.0741	0.0319
14	0.1053	0.024	0.0578	0.0737	0.0319

RD period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.02	0.0134	0.0205	0.0145	0.0217
2	0.0212	0.015	0.0211	0.0152	0.0234
3	0.0212	0.0156	0.0213	0.0157	0.0234
4	0.0211	0.0164	0.0217	0.0166	0.0242
5	0.0216	0.0163	0.0225	0.0174	0.0258
6	0.0219	0.0166	0.0233	0.017	0.026
7	0.0223	0.0172	0.0236	0.0177	0.0275
8	0.0219	0.0168	0.0237	0.0171	0.0292
9	0.0217	0.017	0.0238	0.0173	0.0294
10	0.0216	0.018	0.024	0.0173	0.0297
11	0.0211	0.018	0.0238	0.0173	0.0294
12	0.0214	0.0175	0.0241	0.0169	0.0295
13	0.0219	0.0174	0.0241	0.0177	0.0295
14	0.0219	0.0174	0.0241	0.0171	0.0295

RD period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0005	-0.0077	-0.0084	-0.0112	-0.009
2	0	0	0	0	0
3	0.0089	-0.0024	0.0069	0.0034	-0.0074
4	0.0165	0.0023	0.0075	0.0055	-0.0127
5	0.0126	0.0013	0.0095	0.0124	-0.0072
6	0.0113	0.006	0.0079	0.0199	-0.0156

12	0.2616	0.1952	0.2183	0.0948	0.2178
13	0.2694	0.1982	0.2326	0.097	0.223
14	0.2757	0.2015	0.246	0.0996	0.2299

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.1385	1.186	1.297	0.9813	1.1629
2	1	1	1	1	1
3	0.8402	0.9019	1.0071	1.0273	0.9548
4	0.7325	0.8295	1.0532	0.9818	0.9521
5	0.7278	0.8332	1.0908	0.9861	0.953
6	0.7728	0.8612	1.125	0.9805	0.9288
7	0.8027	0.8186	1.1152	0.9343	0.8895
8	0.9145	0.7704	1.3158	0.9261	0.8969
9	0.7056	0.7373	1.5758	0.8802	0.9418
10	1.4114	0.7349	1.8156	0.8741	0.9967
11	1.5439	0.7509	2.1173	0.8985	1.0297
12	1.5976	0.7655	2.4179	0.9213	1.0685
13	1.6945	0.7893	2.7462	0.9656	1.1199
14	1.7749	0.8161	3.0716	1.0177	1.1905

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7	0.0453	0.0199	-0.0058	-0.0124	0.0116
8	0.0447	0.0246	-0.0065	-0.0089	0.0131
9	0.0452	0.0243	-0.0012	-0.0093	0.0083
10	0.0501	0.0188	-0.0037	-0.0045	0.0125
11	0.0431	0.022	-0.001	-0.0068	0.0159
12	0.0417	0.0228	-0.0014	-0.0096	0.0187
13	0.0415	0.024	-0.0005	-0.0086	0.0187
14	0.0415	0.024	-0.0005	-0.0086	0.0187

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	8.5588	20.0768	1.0799	3.2014	254.1924
2	0	0	0	0	0
3	12.9508	19.7754	7.1274	8.4764	33.3186
4	14.2803	23.4456	11.1231	2.369	73.1244
5	22.9962	47.2364	2.6998	2.1979	2.0741
6	43.9409	62.6076	14.0389	20.5909	75.7723
7	55.044	69.7535	14.1469	26.1249	109.0909
8	54.3686	86.3983	15.8747	18.7185	122.9479
9	54.8868	85.1247	2.9158	19.491	78.4201
10	60.9226	65.9326	8.9633	9.4995	117.3433
11	52.3425	77.094	2.4838	14.2909	149.7793
12	50.6987	80.0301	3.4557	20.2486	175.7282
13	50.4736	84.2399	1.2959	18.0423	175.7282
14	50.4736	84.2399	1.2959	18.0423	175.7282

RD period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0211	0.0166	0.0213	0.0183	0.036
2	0.0205	0.0182	0.0231	0.0192	0.0291
3	0.0227	0.0191	0.024	0.0201	0.0305
4	0.0225	0.0193	0.0257	0.0206	0.0338
5	0.0273	0.0233	0.0262	0.0211	0.035
6	0.0418	0.0267	0.0268	0.0232	0.0361
7	0.0505	0.0283	0.0274	0.0241	0.0366
8	0.0502	0.0321	0.0286	0.0225	0.0405
9	0.0507	0.0315	0.0278	0.0225	0.0394
10	0.0552	0.0278	0.029	0.0212	0.0404
11	0.0485	0.0304	0.0287	0.0222	0.0418
12	0.0473	0.0315	0.0286	0.0231	0.0429
13	0.0471	0.0326	0.0285	0.0227	0.0429
14	0.0471	0.0326	0.0285	0.0227	0.0429

RD period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.0568	0.8345	0.8515	0.9138	1.53
2	1	1	1	1	1
3	1.2253	1.0968	1.0782	1.0915	1.0989
4	1.2049	1.1263	1.2425	1.1542	1.3454
5	1.7752	1.6408	1.2934	1.209	1.4425
6	4.1462	2.1556	1.3439	1.4663	1.5384
7	6.0729	2.4266	1.4068	1.5796	1.5853
8	6.0017	3.1187	1.5305	1.3758	1.9327
9	6.1029	3.0032	1.4468	1.3745	1.8312
10	7.2321	2.3296	1.5821	1.2153	1.9272
11	5.6023	2.7893	1.5458	1.3327	2.0609
12	5.3252	2.9868	1.535	1.4445	2.1762
13	5.2842	3.208	1.53	1.3943	2.1762
14	5.2842	3.208	1.53	1.3943	2.1762

RD daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0753	0.0342	0.0406	0.0491	0.0164

7	0.0102	0.0049	0.0198	0.0223	-0.0142
8	0.0086	0.0059	0.023	0.0235	-0.0076
9	0.0071	0.0054	0.0217	0.0224	-0.0102
10	0.0081	0.0032	0.0209	0.0206	-0.0057
11	0.0131	0.0084	0.022	0.0186	0.001
12	0.0155	0.0057	0.0218	0.0198	-0.0011
13	0.0173	0.0033	0.0235	0.0214	-0.0111
14	0.0173	0.0033	0.0235	0.021	-0.0111

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.553	36.918	24.5838	21.338	27.2621
2	0	0	0	0	0
3	10.085	11.3473	20.2819	6.4828	22.3859
4	18.7624	11.3189	21.8374	10.3994	38.4355
5	14.3275	6.312	27.6947	23.6196	21.8449
6	12.8805	28.9782	23.1863	37.7801	47.1904
7	11.5668	23.8527	58.0143	42.2896	43.0639
8	9.7395	28.2379	67.2743	44.6311	23.0965
9	8.0456	26.1639	63.422	42.6069	31.0169
10	9.2062	15.5569	61.0038	39.1514	17.1773
11	14.9154	40.2971	64.1998	35.2766	2.9987
12	17.6366	27.6162	63.8717	37.6691	3.3377
13	19.7109	15.9129	68.8297	40.6546	3.3377
14	19.7109	15.9129	68.8297	39.9389	3.3377

RD period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.02	0.0154	0.0222	0.0184	0.0235
2	0.0212	0.015	0.0211	0.0152	0.0234
3	0.023	0.0158	0.0224	0.016	0.0245
4	0.0268	0.0166	0.0229	0.0175	0.0273
5	0.025	0.0163	0.0244	0.0214	0.0268
6	0.0246	0.0177	0.0246	0.0261	0.0303
7	0.0245	0.0179	0.0308	0.028	0.031
8	0.0235	0.0178	0.033	0.0291	0.0302
9	0.0228	0.0179	0.0322	0.0283	0.0311
10	0.0231	0.0183	0.0318	0.0269	0.0303
11	0.0249	0.0199	0.0324	0.0254	0.0294
12	0.0264	0.0184	0.0325	0.0261	0.0295
13	0.0279	0.0177	0.0337	0.0274	0.0295
14	0.0279	0.0177	0.0337	0.0271	0.0295

RD period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	0.8901	1.0614	1.1074	1.455	1.0052
2	1	1	1	1	1
3	1.1757	1.1089	1.1337	1.1071	1.0965
4	1.5957	1.2243	1.1853	1.3174	1.3589
5	1.3898	1.1909	1.3409	1.972	1.3072
6	1.3436	1.3961	1.367	2.9463	1.6761
7	1.3281	1.4275	2.137	3.3837	1.7492
8	1.2284	1.4107	2.4586	3.649	1.6621
9	1.1541	1.4239	2.3371	3.4561	1.7669
10	1.1791	1.4969	2.2785	3.1163	1.6703
11	1.3702	1.7638	2.3619	2.7842	1.5798
12	1.5464	1.5149	2.3779	2.929	1.5857
13	1.7263	1.4	2.5584	3.2287	1.5857
14	1.7263	1.4	2.5584	3.1609	1.5857

RD daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0884	0.0131	0.0258	0.0414	0.024

7	0.021	0.0102	0.0045	0.0246	-0.0003
8	0.0179	0.0125	0.0051	0.0275	0.0141
9	0.0161	0.0166	0.0012	0.0304	0.0115
10	0.0129	0.0179	-0.0007	0.0268	0.0177
11	0.0164	0.026	0.006	0.0241	0.0151
12	0.0212	0.0236	0.0032	0.0267	0.0131
13	0.0246	0.0247	0.0063	0.0258	0.0131
14	0.0246	0.0247	0.0063	0.0255	0.0131

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	2.7083	31.6374	10.233	12.0345	11.786
2	0	0	0	0	0
3	12.1132	1.0228	17.6284	10.1405	3.1778
4	23.159	1.6855	8.6798	19.736	15.4867
5	23.5485	3.1622	20.1254	6.6117	12.7916
6	23.26	1.4924	23.3333	12.6173	3.7812
7	22.1962	18.9574	13.4767	44.5918	1.045

2	0.0735	0.0274	0.0411	0.0456	0.0127
3	0.071	0.0247	0.0376	0.0454	0.0117
4	0.0694	0.0213	0.0326	0.0437	0.014
5	0.0698	0.0192	0.0295	0.0424	0.0127
6	0.0702	0.019	0.0265	0.0392	0.0103
7	0.0695	0.0189	0.0258	0.038	0.0082
8	0.0666	0.0168	0.0236	0.0369	0.0098
9	0.0638	0.015	0.0222	0.0351	0.0109
10	0.0605	0.0132	0.0206	0.0342	0.0111
11	0.0569	0.0126	0.0183	0.0327	0.0111
12	0.054	0.0116	0.0168	0.0308	0.0117
13	0.051	0.0105	0.0151	0.0294	0.0122
14	0.0483	0.0096	0.0136	0.0279	0.0125

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0199	0.0156	0.0213	0.0183	0.0238
2	0.0192	0.0161	0.0213	0.0179	0.023
3	0.0175	0.0149	0.0205	0.0175	0.0236
4	0.0155	0.0139	0.0196	0.0169	0.0226
5	0.0141	0.0129	0.0185	0.0161	0.021
6	0.0131	0.0127	0.0176	0.0156	0.0205
7	0.0126	0.0125	0.0168	0.015	0.0201
8	0.0121	0.0117	0.0153	0.0138	0.0191
9	0.0117	0.0109	0.0142	0.0127	0.0181
10	0.0113	0.0103	0.0135	0.0119	0.0174
11	0.0107	0.0098	0.0128	0.0112	0.0166
12	0.0102	0.0094	0.0123	0.0106	0.0157
13	0.0097	0.0091	0.0118	0.0102	0.0149
14	0.0093	0.0089	0.0115	0.0098	0.0143

RD daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0018	0.0068	-0.0004	0.0035	0.0037
2	0	0	0	0	0
3	-0.0025	-0.0027	-0.0035	-0.0002	-0.001
4	-0.0041	-0.0062	-0.0085	-0.0019	0.0013
5	-0.0037	-0.0082	-0.0116	-0.0033	0
6	-0.0033	-0.0084	-0.0145	-0.0064	-0.0024
7	-0.004	-0.0085	-0.0153	-0.0076	-0.0045
8	-0.0069	-0.0106	-0.0175	-0.0087	-0.0029
9	-0.0097	-0.0124	-0.0189	-0.0105	-0.0018
10	-0.013	-0.0142	-0.0205	-0.0114	-0.0016
11	-0.0166	-0.0148	-0.0228	-0.013	-0.0015
12	-0.0195	-0.0158	-0.0243	-0.0148	-0.001
13	-0.0225	-0.0169	-0.026	-0.0162	-0.0005
14	-0.0252	-0.0178	-0.0275	-0.0177	-0.0002

RD daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	2.4216	24.9039	1.0799	7.5813	29.1443
2	0	0	0	0	0
3	3.3969	9.761	8.4953	0.4569	8.1501
4	5.5497	22.4451	20.7073	4.1392	10.3123
5	5.0507	29.9434	28.2721	7.1632	0.1959
6	4.5205	30.537	35.3852	14.0283	18.9737
7	5.4284	30.961	37.2416	16.7138	35.4912
8	9.3951	38.6055	42.6431	19.156	22.6252
9	13.2034	45.3996	45.9083	22.9828	14.5116
10	17.6778	51.7107	49.9136	24.9648	12.9107
11	22.545	53.9529	55.3898	28.395	12.1621
12	26.4895	57.6591	59.1523	32.5267	7.5248

2	0.0816	0.016	0.0296	0.0393	0.0239
3	0.0797	0.0168	0.0277	0.0387	0.0207
4	0.0743	0.0182	0.0271	0.0355	0.0177
5	0.07	0.0189	0.027	0.0344	0.0185
6	0.0641	0.0181	0.0272	0.0354	0.0178
7	0.0584	0.017	0.0287	0.035	0.0169
8	0.0522	0.0148	0.0277	0.0317	0.0164
9	0.0476	0.0142	0.0259	0.029	0.0154
10	0.0426	0.0133	0.0236	0.0273	0.0141
11	0.0397	0.0128	0.0214	0.0248	0.0138
12	0.0378	0.0122	0.0196	0.0229	0.0137
13	0.0357	0.0113	0.0184	0.0216	0.0131
14	0.0337	0.0104	0.0172	0.0207	0.0125

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.02	0.0134	0.0205	0.0145	0.0217
2	0.0195	0.0135	0.02	0.0143	0.0208
3	0.0179	0.0129	0.0186	0.0141	0.0201
4	0.0162	0.0122	0.0174	0.0136	0.0194
5	0.0154	0.0113	0.0165	0.0131	0.019
6	0.0146	0.0105	0.016	0.0127	0.0188
7	0.0136	0.01	0.0157	0.0122	0.0185
8	0.0125	0.0093	0.0144	0.0112	0.0178
9	0.0115	0.0086	0.0135	0.0104	0.017
10	0.0106	0.0082	0.0129	0.0097	0.0162
11	0.0097	0.0078	0.0123	0.0091	0.0154
12	0.0091	0.0074	0.0119	0.0086	0.0148
13	0.0087	0.007	0.0116	0.0082	0.0142
14	0.0084	0.0066	0.0114	0.0079	0.0137

RD daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0069	-0.0029	-0.0038	0.0021	0.0001
2	0	0	0	0	0
3	-0.0019	0.0008	-0.0019	-0.0007	-0.0033
4	-0.0072	0.0022	-0.0025	-0.0038	-0.0063
5	-0.0116	0.0029	-0.0026	-0.0049	-0.0055
6	-0.0175	0.0021	-0.0024	-0.0039	-0.0061
7	-0.0232	0.001	-0.0009	-0.0043	-0.0071
8	-0.0293	-0.0012	-0.0019	-0.0077	-0.0076
9	-0.034	-0.0018	-0.0037	-0.0103	-0.0085
10	-0.039	-0.0027	-0.006	-0.012	-0.0099
11	-0.0419	-0.0032	-0.0082	-0.0145	-0.0101
12	-0.0438	-0.0038	-0.01	-0.0164	-0.0102
13	-0.0459	-0.0047	-0.0112	-0.0177	-0.0109
14	-0.0478	-0.0056	-0.0124	-0.0187	-0.0115

RD daily prevalence % BIAS

1	8.4016	18.2408	12.8554	5.3687	0.2876
2	0	0	0	0	0
3	2.2876	5.133	6.4148	1.6893	13.6407
4	8.8835	13.4692	8.355	9.5973	26.1797
5	14.2072	17.8718	8.6288	12.4441	22.8402
6	21.4629	13.1714	8.1561	9.857	25.5183
7	28.442	6.2481	2.9077	10.889	29.5742
8	35.9639	7.6903	6.3154	19.5005	31.6533
9	41.6568	11.5082	12.417	26.2745	35.6013
10	47.793	17.074	20.4044	30.6324	41.2943
11	51.3343	19.8753	27.8089	36.8237	42.3782
12	53.6785	23.6978	33.6715	41.7902	42.7355

2	0.0972	0.0422	0.0219	0.0515	0.0284
3	0.0972	0.0412	0.0226	0.0514	0.0267
4	0.0924	0.0385	0.0235	0.0471	0.0251
5	0.088	0.0351	0.024	0.0424	0.0259
6	0.08	0.0331	0.024	0.0396	0.0247
7	0.0727	0.0328	0.0242	0.0384	0.0232
8	0.0638	0.0318	0.0267	0.0357	0.0238
9	0.0566	0.0308	0.0284	0.0353	0.0234
10	0.0493	0.0294	0.0291	0.0353	0.0234
11	0.045	0.0281	0.0297	0.0333	0.0228
12	0.0421	0.0269	0.03	0.0319	0.0219
13	0.0391	0.0256	0.0303	0.03	0.0212
14	0.0366	0.0245	0.0305	0.028	0.0209

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0263	0.0124	0.0258	0.0215	0.023
2	0.025	0.0122	0.024	0.0214	0.0222
3	0.0235	0.0117	0.0231	0.0213	0.0217
4	0.0213	0.0107	0.0222	0.0202	0.0212
5	0.0204	0.0099	0.0216	0.0191	0.0207
6	0.0195	0.0094	0.021	0.018	0.0197
7	0.018	0.0			

13	30.617	61.5707	63.2414	35.5766	3.6578
14	34.2323	64.9781	66.8312	38.7611	1.5075

RD daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.02	0.017	0.0213	0.0186	0.0241
2	0.0192	0.0161	0.0213	0.0179	0.023
3	0.0177	0.0152	0.0207	0.0175	0.0236
4	0.016	0.0152	0.0213	0.017	0.0226
5	0.0146	0.0153	0.0218	0.0165	0.021
6	0.0135	0.0152	0.0228	0.0169	0.0207
7	0.0132	0.0151	0.0227	0.0169	0.0206
8	0.0139	0.0158	0.0233	0.0163	0.0194
9	0.0152	0.0166	0.0236	0.0165	0.0182
10	0.0172	0.0175	0.0245	0.0165	0.0175
11	0.0197	0.0177	0.0261	0.0171	0.0167
12	0.022	0.0184	0.0272	0.0183	0.0158
13	0.0245	0.0192	0.0285	0.0192	0.015
14	0.0268	0.0199	0.0298	0.0202	0.0143

RD daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.0778	1.1145	0.9973	1.0808	1.0974
2	1	1	1	1	1
3	0.8437	0.8833	0.9466	0.9574	1.0554
4	0.6951	0.8868	1.001	0.9022	0.9683
5	0.5754	0.9021	1.0494	0.8466	0.8376
6	0.4934	0.89	1.1443	0.891	0.8081
7	0.4743	0.8735	1.137	0.8872	0.8068
8	0.5245	0.9594	1.1897	0.8321	0.7093
9	0.6246	1.0552	1.2233	0.8501	0.6282
10	0.7996	1.1786	1.324	0.8498	0.5778
11	1.0501	1.2077	1.4988	0.9181	0.5291
12	1.3079	1.3007	1.6288	1.0407	0.4712
13	1.626	1.4133	1.7915	1.145	0.4235
14	1.9467	1.5206	1.9485	1.2733	0.3868

13	56.2002	29.4962	37.7216	44.973	45.3235
14	58.6415	35.0643	41.8662	47.479	47.9893

RD daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0212	0.0137	0.0209	0.0147	0.0217
2	0.0195	0.0135	0.02	0.0143	0.0208
3	0.018	0.0129	0.0187	0.0141	0.0203
4	0.0178	0.0124	0.0176	0.0141	0.0204
5	0.0193	0.0116	0.0167	0.014	0.0198
6	0.0228	0.0108	0.0162	0.0133	0.0197
7	0.0269	0.0101	0.0157	0.0129	0.0198
8	0.0319	0.0094	0.0145	0.0136	0.0193
9	0.0359	0.0088	0.014	0.0146	0.019
10	0.0404	0.0086	0.0143	0.0154	0.019
11	0.043	0.0084	0.0148	0.0171	0.0184
12	0.0447	0.0083	0.0155	0.0186	0.018
13	0.0467	0.0084	0.0161	0.0195	0.0178
14	0.0486	0.0087	0.0168	0.0203	0.0179

RD daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.1765	1.0266	1.0925	1.0497	1.0856
2	1	1	1	1	1
3	0.8546	0.9155	0.8751	0.9733	0.954
4	0.8289	0.842	0.7743	0.9705	0.9604
5	0.9741	0.7391	0.6968	0.9551	0.9034
6	1.3634	0.6327	0.658	0.8601	0.8993
7	1.9	0.5571	0.6193	0.813	0.9049
8	2.6727	0.4867	0.5302	0.8955	0.862
9	3.3803	0.426	0.4929	1.0413	0.8352
10	4.2857	0.4068	0.5111	1.1614	0.8327
11	4.8523	0.3842	0.5524	1.4246	0.7846
12	5.2522	0.3749	0.6053	1.6759	0.746
13	5.7158	0.3878	0.6508	1.8504	0.7342
14	6.1926	0.4133	0.711	2.0006	0.7355

13	59.7994	39.2604	38.1418	41.8469	25.253
14	62.3606	41.7683	38.9191	45.6647	26.4974

RD daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0263	0.0135	0.027	0.0217	0.0231
2	0.025	0.0122	0.024	0.0214	0.0222
3	0.0235	0.0117	0.0231	0.0213	0.0218
4	0.0219	0.0113	0.0223	0.0207	0.0214
5	0.0224	0.0122	0.0217	0.0212	0.0208
6	0.026	0.0131	0.0211	0.0216	0.02
7	0.0304	0.013	0.0203	0.0214	0.0195
8	0.037	0.0134	0.0194	0.0223	0.0187
9	0.0431	0.0139	0.0189	0.022	0.0183
10	0.0497	0.0148	0.0185	0.0217	0.0179
11	0.0536	0.0159	0.0181	0.0228	0.0174
12	0.0563	0.0168	0.0178	0.0237	0.0172
13	0.0591	0.0179	0.0177	0.0251	0.0171
14	0.0615	0.0188	0.0175	0.0266	0.017

RD daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.1027	1.2288	1.2692	1.023	1.0828
2	1	1	1	1	1
3	0.8777	0.9229	0.9279	0.9856	0.9685
4	0.7622	0.8597	0.865	0.9316	0.933
5	0.7984	1	0.821	0.9771	0.8834
6	1.0791	1.1482	0.7722	1.016	0.8177
7	1.4771	1.1433	0.7158	1.0004	0.7729
8	2.1861	1.2085	0.6534	1.0797	0.7085
9	2.961	1.3023	0.6236	1.0553	0.6837
10	3.9348	1.4813	0.5953	1.0252	0.65
11	4.5778	1.689	0.5709	1.1316	0.617
12	5.0543	1.8949	0.5532	1.2216	0.6054
13	5.5741	2.1528	0.5439	1.3702	0.5966
14	6.0273	2.3803	0.5329	1.5446	0.5865

Sheet 2

Diarrhea, Anemic vs. Not Anemic

PR period prevalence (File created by recall-empirical-tables.R / diar, anemia)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.585	1.6328	1.199	0.9552	1.2977
2	1.4917	1.4686	1.3445	1.0992	1.1731
3	1.585	1.5506	0.9767	1.1085	1.0025
4	1.4894	1.6606	0.9993	1.0753	1.0085
5	1.7326	1.6609	1.0612	1.0916	1.0189
6	1.5766	1.656	1.0842	1.0943	0.9815
7	1.5095	1.6834	1.1111	1.0752	1.0368
8	1.4847	1.7475	1.1565	1.0824	1.0645
9	1.4718	1.7827	1.1063	1.0765	1.0921
10	1.482	1.7781	1.1094	1.0642	1.0535
11	1.482	1.7666	1.1512	1.0634	1.0667
12	1.482	1.7827	1.1429	1.0666	1.0843
13	1.4176	1.8455	1.1531	1.0539	1.0931
14	1.4176	1.8455	1.1735	1.0532	1.0975

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.4377	0.2851	0.4353	0.1269	0.5225
2	0.3375	0.226	0.4605	0.1273	0.3739
3	0.3321	0.2353	0.2198	0.1109	0.2481
4	0.3055	0.2298	0.215	0.1047	0.2366
5	0.3693	0.2131	0.223	0.0972	0.2266
6	0.3091	0.2186	0.2259	0.0954	0.201
7	0.2798	0.2223	0.2197	0.0893	0.213
8	0.2737	0.224	0.2295	0.0879	0.2158
9	0.2705	0.2294	0.2059	0.087	0.2213
10	0.2711	0.2282	0.1983	0.0856	0.2051
11	0.2711	0.225	0.2072	0.0851	0.2069
12	0.2711	0.2248	0.2049	0.0849	0.2103
13	0.2596	0.2337	0.2072	0.0832	0.2116
14	0.2596	0.2337	0.2115	0.0825	0.2113

PR period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0932	0.1641	-0.1456	-0.144	0.1246
2	0	0	0	0	0
3	0.0932	0.082	-0.3679	0.0093	-0.1706
4	-0.0024	0.192	-0.3452	-0.0239	-0.1646
5	0.2409	0.1922	-0.2833	-0.0076	-0.1542
6	0.0848	0.1874	-0.2604	-0.0049	-0.1916
7	0.0178	0.2148	-0.2334	-0.0239	-0.1363
8	-0.007	0.2789	-0.1881	-0.0168	-0.1086
9	-0.02	0.3141	-0.2382	-0.0226	-0.081
10	-0.0097	0.3095	-0.2352	-0.035	-0.1196
11	-0.0097	0.2979	-0.1933	-0.0358	-0.1064
12	-0.0097	0.314	-0.2017	-0.0326	-0.0888
13	-0.0741	0.3769	-0.1915	-0.0453	-0.08
14	-0.0741	0.3769	-0.1711	-0.0459	-0.0756

PR period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	6.25	11.1765	10.8259	13.1015	10.6173
2	0	0	0	0	0
3	6.25	5.5807	27.3597	0.8501	14.5405
4	0.1587	13.0732	25.6773	2.1733	14.0351

Diarrhea, Stunted vs. Not Stunted

PR period prevalence (File created by recall-empirical-tables.R / diar, haz)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.1002	1.276	0.9534	1.1821	0.863
2	1.1199	1.2017	0.8946	1.1558	0.9377
3	1.0203	1.2445	1.0726	1.1474	0.9881
4	1.1752	1.2682	1.0843	1.1786	1.0514
5	1.2353	1.1989	1.0748	1.198	1.1149
6	1.2024	1.15	1.1083	1.2441	1.15
7	1.1252	1.1732	1.1645	1.2814	1.1487
8	1.1126	1.1933	1.1583	1.2901	1.1887
9	1.1814	1.1875	1.197	1.2984	1.1595
10	1.2168	1.1812	1.1817	1.2874	1.1435
11	1.2168	1.2195	1.1494	1.274	1.1279
12	1.2168	1.2496	1.1262	1.2717	1.1392
13	1.1788	1.3008	1.1187	1.2771	1.1278
14	1.1788	1.3008	1.1696	1.272	1.1203

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.3591	0.2351	0.2619	0.1269	0.2052
2	0.3076	0.1836	0.2249	0.1181	0.2037
3	0.2292	0.1861	0.2165	0.1113	0.1963
4	0.2635	0.1815	0.2147	0.1031	0.1973
5	0.2488	0.1637	0.1987	0.1009	0.2137
6	0.1982	0.1492	0.2038	0.0976	0.2032
7	0.1817	0.145	0.1952	0.0955	0.2015
8	0.1785	0.1379	0.1895	0.0941	0.2035
9	0.1821	0.1359	0.1925	0.0935	0.1979
10	0.19	0.1367	0.1861	0.0917	0.195
11	0.19	0.1322	0.1798	0.0911	0.1922
12	0.19	0.1298	0.1763	0.0905	0.1912
13	0.1855	0.1354	0.1727	0.0902	0.1894
14	0.1855	0.1354	0.1838	0.0896	0.1872

PR period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0196	0.0743	0.0589	0.0263	-0.0747
2	0	0	0	0	0
3	-0.0995	0.0428	0.178	-0.0083	0.0504
4	0.0553	0.0665	0.1897	0.0228	0.1137
5	0.1154	-0.0028	0.1802	0.0422	0.1773
6	0.0825	-0.0517	0.2137	0.0883	0.2123
7	0.0054	-0.0285	0.2699	0.1257	0.211
8	-0.0073	-0.0084	0.2637	0.1343	0.2511
9	0.0615	-0.0142	0.3024	0.1427	0.2219
10	0.097	-0.0205	0.2871	0.1317	0.2058
11	0.097	0.0178	0.2548	0.1182	0.1902
12	0.097	0.0479	0.2316	0.1159	0.2015
13	0.0589	0.0991	0.2241	0.1214	0.1901
14	0.0589	0.0991	0.275	0.1163	0.1826

PR period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	1.7544	6.1825	6.5789	2.276	7.9663
2	0	0	0	0	0
3	8.887	3.5621	19.9013	0.7203	5.3792
4	4.9393	5.5316	21.2074	1.9758	12.1252

Diarrhea, Underweight vs. Not Underweight

PR period prevalence (File created by recall-empirical-tables.R / diar, waz)

	India HP	India MP	Indonesia	Peru	Senegal
1	2.406	1.3296	1.1792	1.8918	1.1921
2	2.2164	1.2629	1.0631	1.6805	1.1983
3	2.3109	1.2877	1.1195	1.5995	1.2595
4	2.3262	1.3296	1.0403	1.5092	1.4284
5	2.1674	1.2633	1.1429	1.564	1.4521
6	2.157	1.2433	1.1735	1.633	1.4046
7	2.098	1.2977	1.171	1.5703	1.4428
8	2.0718	1.3505	1.2272	1.5836	1.4512
9	1.9499	1.3507	1.2975	1.5949	1.4153
10	1.8623	1.3455	1.2479	1.5859	1.3956
11	1.8623	1.3616	1.2169	1.5729	1.414
12	1.8623	1.3582	1.1946	1.5905	1.4272
13	1.8016	1.3384	1.1874	1.5728	1.4128
14	1.8016	1.3384	1.2196	1.5579	1.4034

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.6664	0.2381	0.3515	0.2842	0.285
2	0.5069	0.1866	0.3007	0.2375	0.2372
3	0.5126	0.1842	0.2749	0.1967	0.2358
4	0.5327	0.1685	0.2514	0.1745	0.2482
5	0.431	0.1459	0.2494	0.1719	0.2545
6	0.3749	0.1398	0.2393	0.163	0.247
7	0.3574	0.136	0.23	0.1521	0.2338
8	0.3506	0.1462	0.2363	0.1551	0.2355
9	0.3166	0.1447	0.2559	0.1555	0.2284
10	0.2967	0.1446	0.2457	0.1554	0.2255
11	0.2967	0.1432	0.2398	0.1535	0.2216
12	0.2967	0.1444	0.2348	0.1491	0.2182
13	0.2932	0.1396	0.23	0.1478	0.2162
14	0.2932	0.1396	0.1565	0.1226	0.2051

PR period prevalence BIAS

5	16.1491	13.0903	21.0714	0.6889	13.1481
6	5.6878	12.7612	19.3638	0.4427	16.33
7	1.1905	14.6247	17.3611	2.176	11.6162
8	0.4684	18.9879	13.9881	1.524	9.2593
9	1.3393	21.3873	17.7162	2.0572	6.9024
10	0.6494	21.0729	17.4908	3.1839	10.1986
11	0.6494	20.2876	14.3773	3.2563	9.0714
12	0.6494	21.3825	15	2.9652	7.5684
13	4.9689	25.6649	14.2411	4.1178	6.817
14	4.9689	25.6649	12.7232	4.1802	6.4412

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.4475	0.329	0.459	0.1919	0.5371
2	0.3375	0.226	0.4605	0.1273	0.3739
3	0.345	0.2492	0.4285	0.1113	0.3011
4	0.3055	0.2994	0.4067	0.1074	0.2882
5	0.4409	0.287	0.3606	0.0975	0.2741
6	0.3206	0.2879	0.3447	0.0956	0.2777
7	0.2803	0.3091	0.3206	0.0924	0.2529
8	0.2738	0.3577	0.2967	0.0895	0.2416
9	0.2712	0.389	0.3148	0.0899	0.2356
10	0.2712	0.3845	0.3076	0.0925	0.2375
11	0.2712	0.3734	0.2834	0.0923	0.2327
12	0.2712	0.3862	0.2875	0.0909	0.2283
13	0.27	0.4435	0.2821	0.0947	0.2262
14	0.27	0.4435	0.272	0.0945	0.2244

PR period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.7585	2.1179	0.9934	2.2724	2.0635
2	1	1	1	1	1
3	1.045	1.2151	0.8659	0.7645	0.6483
4	0.8196	1.755	0.7801	0.711	0.5942
5	1.7073	1.6118	0.6131	0.5863	0.5374
6	0.9024	1.6224	0.5604	0.5634	0.5514
7	0.69	1.8697	0.4846	0.5267	0.4574
8	0.6584	2.5036	0.4151	0.4937	0.4173
9	0.6461	2.9613	0.4674	0.4988	0.397
10	0.646	2.8937	0.4462	0.528	0.4033
11	0.646	2.7287	0.3787	0.5255	0.3873
12	0.646	2.919	0.3898	0.51	0.3728
13	0.64	3.8494	0.3753	0.5532	0.366
14	0.64	3.8494	0.349	0.5504	0.3602

PR daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.585	1.6328	1.199	0.9552	1.2977
2	1.4556	1.4597	1.4286	1.0532	1.2857
3	1.4278	1.4517	1.2338	1.0706	1.1398
4	1.3543	1.5118	1.1815	1.0683	1.1324
5	1.3945	1.5358	1.1645	1.0548	1.082
6	1.3963	1.5671	1.1927	1.0444	1.0406
7	1.3174	1.5772	1.2386	1.0324	1.0151
8	1.268	1.5541	1.2289	1.028	0.9923
9	1.2453	1.541	1.2287	1.0207	0.973
10	1.2342	1.5405	1.2206	1.0105	0.9483
11	1.2307	1.5446	1.2359	0.9972	0.9329
12	1.2273	1.5502	1.2582	0.9865	0.9274
13	1.2021	1.5777	1.2723	0.9719	0.9188

5	10.3039	0.2299	20.1435	3.6516	18.9051
6	7.3684	4.3042	23.8866	7.6431	22.6421
7	0.4785	2.3755	30.1728	10.8745	22.5008
8	0.6505	0.6984	29.4737	11.6218	26.7751
9	5.4945	1.1776	33.8071	12.3445	23.6613
10	8.6587	1.7034	32.0979	11.3924	21.9498
11	8.6587	1.4847	28.4787	10.2296	20.2849
12	8.6587	3.9896	25.8919	10.0306	21.4903
13	5.2632	8.2465	25.0526	10.5002	20.2754
14	5.2632	8.2465	30.7368	10.0601	19.4788

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.3596	0.2466	0.2684	0.1296	0.2184
2	0.3076	0.1836	0.2249	0.1181	0.2037
3	0.2499	0.191	0.2803	0.1116	0.2027
4	0.2692	0.1933	0.2865	0.1056	0.2277
5	0.2742	0.1637	0.2683	0.1094	0.2776
6	0.2147	0.1579	0.2953	0.1317	0.2939
7	0.1818	0.1478	0.3331	0.1579	0.2918
8	0.1786	0.1382	0.3247	0.164	0.3232
9	0.1922	0.1366	0.3585	0.1706	0.2973
10	0.2133	0.1382	0.3422	0.1604	0.2835
11	0.2133	0.1334	0.3118	0.1492	0.2704
12	0.2133	0.1383	0.2911	0.1471	0.2778
13	0.1947	0.1678	0.2829	0.1512	0.2683
14	0.1947	0.1678	0.3308	0.1468	0.2616

PR period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.3666	1.8041	1.4239	1.2048	1.1491
2	1	1	1	1	1
3	0.6599	1.082	1.5533	0.8927	0.9898
4	0.766	1.1087	1.623	0.7993	1.2487
5	0.7947	0.7956	1.4227	0.8579	1.8568
6	0.4869	0.7396	1.7237	1.2426	2.0804
7	0.3492	0.6478	2.1934	1.7864	2.0507
8	0.3371	0.5664	2.0843	1.9287	2.516
9	0.3903	0.5536	2.5404	2.0863	2.1288
10	0.4808	0.5669	2.3142	1.8455	1.9362
11	0.4808	0.528	1.9223	1.5966	1.7615
12	0.4808	0.5678	1.6749	1.5509	1.8589
13	0.4005	0.8357	1.5824	1.6397	1.7346
14	0.4005	0.8357	2.1629	1.5441	1.6482

PR daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.1002	1.276	0.9534	1.1821	0.863
2	1.0609	1.1983	0.9025	1.1486	0.8795
3	1.0667	1.2456	0.9836	1.1396	0.9164
4	1.1661	1.2837	1.0711	1.1509	0.9882
5	1.1963	1.2714	1.1331	1.1751	1.0428
6	1.1317	1.2539	1.1865	1.1997	1.0658
7	1.076	1.2517	1.2642	1.2236	1.0917
8	1.0511	1.2546	1.2646	1.2401	1.1263
9	1.0345	1.2613	1.2587	1.2658	1.1525
10	1.0297	1.259	1.2477	1.2814	1.1461
11	1.0243	1.2749	1.2429	1.2913	1.1337
12	1.0192	1.2954	1.2356	1.2975	1.1297
13	0.9893	1.3187	1.2233	1.3034	1.1213

5	2.2074	0.0319	7.5	6.9349	21.1763
6	2.6802	1.5559	10.3795	2.8243	17.2158
7	5.3385	2.7511	10.1478	6.5574	20.4028
8	6.5217	6.9307	15.4362	5.7655	21.1051
9	12.0205	6.9506	22.0435	5.0965	18.1095
10	15.9746	6.5399	17.3794	5.6322	16.4634
11	15.9746	7.8122	14.4632	6.4044	18.0029
12	15.9746	7.5395	12.3693	5.3536	19.1043
13	18.7146	5.9766	11.6883	6.4086	17.9012
14	18.7146	5.9766	14.716	7.2943	17.1126

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.6928	0.2472	0.3702	0.3541	0.285
2	0.5069	0.1866	0.3007	0.2375	0.2372
3	0.5213	0.1859	0.2806	0.2127	0.2436
4	0.5439	0.1813	0.2524	0.2446	0.3385
5	0.4338	0.1459	0.2618	0.2077	0.3594
6	0.3796	0.1412	0.2635	0.1698	0.3218
7	0.3765	0.1403	0.254	0.1878	0.3383
8	0.3793	0.1704	0.2877	0.1829	0.3456
9	0.4138	0.1692	0.347	0.1776	0.3151
10	0.4619	0.1665	0.3074	0.182	0.2996
11	0.4619	0.1739	0.2848	0.1875	0.3093
12	0.4619	0.1729	0.2691	0.1741	0.3163
13	0.508	0.15			

14	1.1782	1.6078	1.3047	0.9592	0.9186
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PR daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.4377	0.2851	0.4353	0.1269	0.5225
2	0.3576	0.2285	0.518	0.129	0.4201
3	0.3165	0.2265	0.3326	0.1204	0.3185
4	0.2962	0.2267	0.3064	0.1145	0.3114
5	0.318	0.2193	0.306	0.1068	0.296
6	0.3199	0.2201	0.3126	0.1021	0.2765
7	0.2894	0.2192	0.3128	0.0986	0.2703
8	0.276	0.2135	0.3021	0.0968	0.2697
9	0.2786	0.2137	0.2896	0.0952	0.2708
10	0.2858	0.2158	0.2744	0.0938	0.2655
11	0.2922	0.2206	0.275	0.093	0.2644
12	0.3002	0.2234	0.2772	0.0925	0.2657
13	0.2944	0.2296	0.2789	0.0917	0.2671
14	0.2897	0.2369	0.2862	0.0908	0.2712

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1294	0.1731	-0.2296	-0.098	0.012
2	0	0	0	0	0
3	-0.0278	-0.008	-0.1948	0.0174	-0.1458
4	-0.1013	0.0521	-0.247	0.0151	-0.1532
5	-0.0611	0.0762	-0.2641	0.0017	-0.2037
6	-0.0593	0.1074	-0.2359	-0.0088	-0.245
7	-0.1382	0.1175	-0.19	-0.0208	-0.2706
8	-0.1876	0.0944	-0.1997	-0.0252	-0.2933
9	-0.2103	0.0813	-0.1999	-0.0325	-0.3127
10	-0.2213	0.0808	-0.208	-0.0427	-0.3374
11	-0.2249	0.085	-0.1926	-0.0559	-0.3528
12	-0.2282	0.0905	-0.1704	-0.0667	-0.3582
13	-0.2535	0.118	-0.1563	-0.0813	-0.3669
14	-0.2774	0.1481	-0.1239	-0.0939	-0.3671

PR daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	8.8889	11.8571	16.0714	9.3066	0.9319
2	0	0	0	0	0
3	1.9085	0.5479	13.6364	1.654	11.3436
4	6.9574	3.5714	17.2932	1.4372	11.9195
5	4.1975	5.2174	18.4874	0.1599	15.8448
6	4.0741	7.3554	16.5121	0.8312	19.0597
7	9.4949	8.0502	13.3005	1.9732	21.0445
8	12.8889	6.4668	13.9785	2.3939	22.8168
9	14.4444	5.5691	13.9942	3.0841	24.3182
10	15.207	5.538	14.5604	4.0506	26.2445
11	15.4492	5.8199	13.4846	5.3113	27.44
12	15.6802	6.2012	11.9266	6.3342	27.8641
13	17.4141	8.0831	10.9395	7.7195	28.5394
14	19.056	10.1484	8.6735	8.9201	28.5523

PR daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.4564	0.3335	0.4921	0.1603	0.5226
2	0.3576	0.2285	0.518	0.129	0.4201
3	0.3177	0.2266	0.3854	0.1216	0.3503
4	0.3131	0.2326	0.3936	0.1155	0.347
5	0.3238	0.2322	0.4042	0.1068	0.3593
6	0.3254	0.2449	0.3916	0.1025	0.3695

14	0.961	1.3392	1.2272	1.3083	1.1143
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PR daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.3591	0.2351	0.2619	0.1269	0.2052
2	0.3132	0.1982	0.2514	0.1139	0.1924
3	0.2903	0.2038	0.234	0.1114	0.1922
4	0.3091	0.2079	0.2429	0.1104	0.1989
5	0.3	0.2092	0.2473	0.1111	0.2
6	0.2587	0.2025	0.2545	0.1097	0.1964
7	0.2333	0.1969	0.2627	0.1084	0.1989
8	0.2212	0.1929	0.2544	0.1083	0.2041
9	0.2132	0.1902	0.2496	0.1092	0.213
10	0.2102	0.1899	0.2435	0.1103	0.2156
11	0.2108	0.1918	0.2382	0.1118	0.218
12	0.2116	0.1934	0.2353	0.1132	0.2209
13	0.2077	0.1958	0.2332	0.1146	0.2231
14	0.2043	0.1988	0.2343	0.1156	0.2256

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0393	0.0777	0.0509	0.0335	-0.0166
2	0	0	0	0	0
3	0.0058	0.0473	0.0811	-0.0089	0.0369
4	0.1051	0.0854	0.1686	0.0023	0.1087
5	0.1354	0.0731	0.2306	0.0266	0.1632
6	0.0707	0.0556	0.284	0.0511	0.1863
7	0.0151	0.0534	0.3617	0.075	0.2121
8	-0.0098	0.0563	0.3621	0.0916	0.2467
9	-0.0264	0.063	0.3562	0.1172	0.273
10	-0.0312	0.0607	0.3452	0.1329	0.2666
11	-0.0366	0.0766	0.3404	0.1427	0.2542
12	-0.0417	0.0972	0.3331	0.149	0.2501
13	-0.0717	0.1204	0.3208	0.1548	0.2418
14	-0.0999	0.1409	0.3247	0.1597	0.2348

PR daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	3.7037	6.4844	5.6452	2.917	1.8832
2	0	0	0	0	0
3	0.5464	3.9501	8.9813	0.7782	4.1897
4	9.9099	7.1269	18.6822	0.2043	12.3577
5	12.7619	6.1008	25.5493	2.3124	18.5607
6	6.6667	4.6417	31.4695	4.4518	21.1759
7	1.4245	4.4599	40.0755	6.5293	24.1166
8	0.9223	4.7009	40.1247	7.9709	28.0533
9	2.4876	5.2581	39.4724	10.2081	31.0392
10	2.9446	5.0671	38.2456	11.568	30.3118
11	3.4483	6.3936	37.716	12.4266	28.9019
12	3.9282	8.1078	36.9052	12.9694	28.4393
13	6.7538	10.0462	35.5447	13.4817	27.4888
14	9.418	11.756	35.9832	13.9048	26.6932

PR daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.3612	0.2476	0.2668	0.1313	0.2059
2	0.3132	0.1982	0.2514	0.1139	0.1924
3	0.2904	0.2093	0.2476	0.1118	0.1957
4	0.3265	0.2248	0.2957	0.1104	0.2267
5	0.3292	0.2216	0.3381	0.1142	0.2582
6	0.2682	0.21	0.3814	0.121	0.2707

14	1.4664	1.3997	1.3279	1.4405	1.4901
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PR daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.6664	0.2381	0.3515	0.2842	0.285
2	0.5354	0.1974	0.3675	0.2707	0.2539
3	0.4735	0.1872	0.3465	0.2486	0.2613
4	0.4899	0.183	0.3347	0.2262	0.2702
5	0.4856	0.1755	0.3289	0.2143	0.2717
6	0.4278	0.1721	0.3181	0.2038	0.2693
7	0.4022	0.1692	0.3139	0.1943	0.2637
8	0.3959	0.1709	0.3101	0.1886	0.2635
9	0.371	0.1706	0.3167	0.1863	0.2679
10	0.3447	0.1697	0.321	0.1846	0.27
11	0.3328	0.1688	0.322	0.1825	0.276
12	0.3216	0.1691	0.3174	0.1795	0.282
13	0.3164	0.168	0.3104	0.1776	0.2846
14	0.3118	0.1675	0.3046	0.1758	0.2876

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2191	0.0592	-0.0694	0.0744	0.0219
2	0	0	0	0	0
3	-0.1338	0.0258	0.025	-0.0667	0.0

7	0.3207	0.2487	0.366	0.1008	0.3825
8	0.3337	0.2334	0.3621	0.1001	0.3985
9	0.3491	0.2286	0.3519	0.1006	0.4136
10	0.3615	0.2305	0.3443	0.103	0.4293
11	0.3687	0.2364	0.3358	0.1086	0.4409
12	0.3771	0.241	0.3254	0.1141	0.446
13	0.3885	0.2581	0.3197	0.1226	0.4539
14	0.4011	0.2794	0.3118	0.1306	0.4564

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.6286	2.1295	0.9026	1.5449	1.5476
2	1	1	1	1	1
3	0.7892	0.983	0.5537	0.8891	0.6951
4	0.7663	1.0361	0.5774	0.8011	0.6824
5	0.8197	1.0321	0.6089	0.686	0.7316
6	0.8278	1.1479	0.5716	0.631	0.7735
7	0.8039	1.1842	0.4993	0.61	0.8288
8	0.8706	1.043	0.4887	0.6016	0.8998
9	0.9526	1.0009	0.4616	0.6086	0.9692
10	1.0218	1.0168	0.4418	0.6375	1.0444
11	1.063	1.0699	0.4202	0.7081	1.1013
12	1.1116	1.1124	0.3946	0.7821	1.1272
13	1.1797	1.2754	0.3808	0.903	1.1671
14	1.2576	1.4945	0.3624	1.0253	1.1802

RD period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0138	0.0371	0.0069	-0.0041	0.0202
2	0.0164	0.0385	0.0127	0.0108	0.0165
3	0.023	0.0504	-0.0014	0.0144	0.0003
4	0.0216	0.0656	0	0.0116	0.0011
5	0.0331	0.0734	0.004	0.0153	0.0026
6	0.0306	0.078	0.0059	0.0172	-0.0028
7	0.03	0.0871	0.0087	0.0148	0.0055
8	0.029	0.0994	0.0122	0.0165	0.0097
9	0.0297	0.1059	0.0088	0.0156	0.0138
10	0.0313	0.1071	0.0093	0.0133	0.0084
11	0.0313	0.1085	0.0128	0.0133	0.0104
12	0.0313	0.1144	0.0124	0.0142	0.0132
13	0.0283	0.1243	0.0133	0.0117	0.0146
14	0.0283	0.1243	0.0151	0.0116	0.0153

RD period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0082	0.0127	0.0105	0.0116	0.0202
2	0.0095	0.0156	0.0112	0.0132	0.0241
3	0.0108	0.0182	0.0125	0.014	0.026
4	0.0118	0.0188	0.0126	0.0155	0.0265
5	0.0145	0.0192	0.0127	0.0156	0.0269
6	0.0147	0.0207	0.0137	0.0167	0.0277
7	0.0153	0.0228	0.0148	0.017	0.028
8	0.0153	0.0237	0.015	0.017	0.0277
9	0.0162	0.0242	0.0148	0.0171	0.0278
10	0.0171	0.0242	0.0146	0.0173	0.0279
11	0.0171	0.0249	0.0149	0.0173	0.0278
12	0.0171	0.0253	0.0152	0.0175	0.0279
13	0.0172	0.0264	0.0154	0.0175	0.0277
14	0.0172	0.0264	0.0154	0.0175	0.0277

RD period prevalence BIAS

7	0.2338	0.204	0.447	0.1318	0.2908
8	0.2215	0.2009	0.4425	0.1418	0.3202
9	0.2148	0.2004	0.435	0.1602	0.3463
10	0.2125	0.1994	0.4224	0.1727	0.3429
11	0.214	0.2065	0.4155	0.1813	0.3349
12	0.2157	0.2164	0.4078	0.1871	0.3337
13	0.2197	0.2299	0.3966	0.1926	0.329
14	0.2274	0.2436	0.4005	0.1971	0.3256

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.3298	1.5607	1.126	1.3279	1.1455
2	1	1	1	1	1
3	0.8595	1.1146	0.9703	0.9622	1.035
4	1.0866	1.2858	1.3832	0.939	1.3882
5	1.1044	1.2495	1.8091	1.0056	1.8011
6	0.7333	1.1225	2.3012	1.128	1.9794
7	0.5571	1.0595	3.1622	1.3391	2.284
8	0.4998	1.0276	3.0989	1.5489	2.7701
9	0.4704	1.0222	2.9934	1.9781	3.2392
10	0.4601	1.012	2.823	2.297	3.1761
11	0.4667	1.0854	2.7312	2.5328	3.0299
12	0.4742	1.1918	2.6311	2.6959	3.009
13	0.4921	1.3448	2.4885	2.8585	2.924
14	0.5271	1.5109	2.5374	2.9943	2.8643

RD period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0025	0.0161	-0.0019	0.0144	-0.0111
2	0.0039	0.0162	-0.0051	0.0155	-0.0063
3	0.0009	0.0219	0.0042	0.0178	-0.0013
4	0.0078	0.0266	0.0052	0.0244	0.0062
5	0.0115	0.0229	0.005	0.0295	0.0148
6	0.0111	0.0187	0.0076	0.039	0.0204
7	0.0076	0.023	0.013	0.048	0.0213
8	0.0069	0.027	0.0129	0.0504	0.0274
9	0.0113	0.0271	0.0163	0.0524	0.0238
10	0.0138	0.0266	0.0156	0.0514	0.0217
11	0.0138	0.0326	0.0131	0.0495	0.0196
12	0.0138	0.038	0.0113	0.05	0.0216
13	0.0118	0.0458	0.0107	0.0514	0.0201
14	0.0118	0.0458	0.0153	0.0509	0.019

RD period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0081	0.0126	0.0105	0.0095	0.0166
2	0.0095	0.0137	0.011	0.0114	0.0204
3	0.0093	0.0152	0.012	0.013	0.0219
4	0.011	0.0162	0.0126	0.0135	0.0236
5	0.0112	0.0173	0.0127	0.0144	0.0273
6	0.01	0.0173	0.0137	0.0148	0.0272
7	0.0102	0.0179	0.0146	0.0152	0.0283
8	0.0102	0.0178	0.0146	0.0153	0.0289
9	0.0107	0.0182	0.0149	0.0153	0.0289
10	0.0112	0.0187	0.015	0.0153	0.0289
11	0.0112	0.018	0.015	0.0153	0.0289
12	0.0112	0.0178	0.0151	0.0155	0.0292
13	0.0114	0.0183	0.015	0.0156	0.0292
14	0.0114	0.0183	0.0157	0.0156	0.0291

RD period prevalence BIAS

7	0.5166	0.1739	0.3171	0.2894	0.3866
8	0.5189	0.1877	0.3186	0.3149	0.4032
9	0.5537	0.1947	0.3393	0.336	0.4099
10	0.6292	0.1977	0.3527	0.356	0.4024
11	0.6683	0.2053	0.3544	0.3765	0.4145
12	0.7069	0.2115	0.3419	0.3892	0.4332
13	0.7467	0.2113	0.3254	0.3999	0.431
14	0.7851	0.2115	0.3148	0.4159	0.4302

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.7166	1.544	0.9507	1.1775	1.2667
2	1	1	1	1	1
3	0.8444	0.916	0.8938	0.9038	1.1118
4	0.8963	0.9083	0.8303	1.1724	1.6287
5	0.9046	0.8083	0.8024	1.2447	2.0294
6	0.8855	0.7765	0.7512	1.1306	2.1027
7	0.9311	0.7758	0.7446	1.1426	2.3172
8	0.9393	0.904	0.7517	1.3533	2.5214
9	1.0696	0.973	0.8528	1.5403	2.6059
10	1.3812	1.0028	0.9211	1.7292	2.5107
11	1.5583	1.0813	0.9301	1.9349	2.6646
12	1.7432	1.1478	0.8656	2.0669	2.9101
13	1.9451	1.146	0.7839	2.1822	2.88
14	2.1501	1.1482	0.734	2.3607	2.87

RD period prevalence

	India HP	India MP	Indonesia	Peru	Senegal

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	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0026	-0.0014	-0.0058	-0.0149	0.0038
2	0	0	0	0	0
3	0.0066	0.0119	-0.0142	0.0037	-0.0162
4	0.0052	0.0271	-0.0128	0.0008	-0.0154
5	0.0167	0.0349	-0.0087	0.0046	-0.0139
6	0.0142	0.0395	-0.0069	0.0064	-0.0192
7	0.0136	0.0486	-0.004	0.004	-0.011
8	0.0126	0.0609	-0.0005	0.0058	-0.0068
9	0.0132	0.0674	-0.0039	0.0048	-0.0027
10	0.0148	0.0686	-0.0035	0.0026	-0.0081
11	0.0148	0.07	0.0001	0.0025	-0.0061
12	0.0148	0.076	-0.0003	0.0034	-0.0033
13	0.0119	0.0858	0.0006	0.0009	-0.0019
14	0.0119	0.0858	0.0024	0.0008	-0.0012

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	16.0281	3.5529	45.6446	138.0772	22.823
2	0	0	0	0	0
3	39.9532	30.9167	111.1498	33.988	98.1218
4	31.7156	70.5066	100.3484	7.2787	93.3694
5	101.5751	90.7178	68.6411	42.3148	84.4337
6	86.2282	102.6557	54.007	59.6204	116.7615
7	82.8438	126.3873	31.7073	37.4335	66.5623
8	76.8625	158.2481	3.8328	53.4929	41.4627
9	80.5875	175.1946	31.0105	44.9391	16.3631
10	90.2937	178.3151	27.1777	23.8003	49.2601
11	90.2937	181.9797	0.6969	23.2432	36.7103
12	90.2937	197.438	2.439	31.863	19.9772
13	72.3499	223.0578	4.5296	8.43	11.6107
14	72.3499	223.0578	18.4669	7.8729	7.4274

RD period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0086	0.0128	0.012	0.0189	0.0206
2	0.0095	0.0156	0.0112	0.0132	0.0241
3	0.0126	0.0217	0.0189	0.0145	0.0306
4	0.0129	0.033	0.0179	0.0155	0.0307
5	0.0221	0.0398	0.0155	0.0163	0.0303
6	0.0204	0.0446	0.0153	0.0179	0.0337
7	0.0205	0.0537	0.0153	0.0174	0.0301
8	0.0199	0.0653	0.015	0.0179	0.0285
9	0.021	0.0716	0.0153	0.0178	0.0279
10	0.0227	0.0728	0.015	0.0175	0.0291
11	0.0227	0.0743	0.0149	0.0175	0.0285
12	0.0227	0.0801	0.0152	0.0179	0.0281
13	0.0209	0.0898	0.0153	0.0176	0.028
14	0.0209	0.0898	0.0156	0.0176	0.0278

RD period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	0.828	0.6756	1.1366	2.0385	0.7298
2	1	1	1	1	1
3	1.772	1.9526	2.8244	1.2027	1.6188
4	1.8443	4.5112	2.5425	1.3789	1.6227
5	5.4181	6.5595	1.8924	1.5122	1.5839
6	4.6093	8.2306	1.8656	1.824	1.9642
7	4.6624	11.9349	1.8555	1.7365	1.5616
8	4.3793	17.6529	1.7815	1.8366	1.4047

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0015	-0.0001	0.0032	-0.0011	-0.0048
2	0	0	0	0	0
3	-0.0031	0.0056	0.0093	0.0023	0.005
4	0.0039	0.0103	0.0103	0.0089	0.0125
5	0.0075	0.0066	0.0101	0.014	0.0211
6	0.0072	0.0025	0.0128	0.0235	0.0267
7	0.0036	0.0067	0.0181	0.0325	0.0276
8	0.0029	0.0108	0.018	0.0349	0.0337
9	0.0074	0.0108	0.0214	0.0369	0.0301
10	0.0099	0.0104	0.0207	0.0359	0.028
11	0.0099	0.0164	0.0183	0.034	0.0259
12	0.0099	0.0218	0.0165	0.0345	0.0279
13	0.0078	0.0295	0.0159	0.0359	0.0263
14	0.0078	0.0295	0.0205	0.0354	0.0253

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0056	-0.002	0.0041	0.002	-0.0044
2	0	0	0	0	0
3	0.0102	0.0049	0.0039	0.0051	0.0088
4	0.015	0.0118	-0.0005	0.0034	0.0304
5	0.0151	0.0091	0.0065	0.0178	0.0368
6	0.0206	0.0088	0.0093	0.0355	0.034
7	0.0221	0.0175	0.0107	0.033	0.042
8	0.0215	0.0259	0.0157	0.0374	0.0443
9	0.0183	0.0273	0.0218	0.0407	0.0407
10	0.0157	0.0275	0.0185	0.0406	0.0387
11	0.0157	0.0308	0.0163	0.0391	0.042
12	0.0157	0.0323	0.0146	0.0441	0.0449
13	0.0138	0.0306	0.0141	0.042	0.0433
14	0.0138	0.0306	0.0171	0.0402	0.0423

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	37.2933	0.7575	62.9241	7.0206	76.5652
2	0	0	0	0	0
3	78.434	34.5434	181.664	14.7333	78.7547
4	97.9075	63.6386	200.727	57.2245	199.0763
5	190.3139	40.9006	196.3651	90.1612	336.0246
6	181.404	15.2112	248.3845	151.69	424.1875
7	91.5289	41.5066	352.4233	209.3624	438.6247
8	74.1478	66.402	350.2423	225.205	536.1957
9	186.9052	66.5535	416.1551	238.1986	478.0021
10	250.4894	63.9052	402.2617	231.3202	444.7485
11	250.4894	100.9454	355.412	219.1609	411.495
12	250.4894	133.9373	320.2746	222.4271	443.6538
13	198.3463	181.8738	308.5622	231.5644	418.7137
14	198.3463	181.8738	397.8998	228.1251	402.0869

RD period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0083	0.0127	0.011	0.0096	0.0173
2	0.0095	0.0137	0.011	0.0114	0.0204
3	0.0098	0.0162	0.0152	0.0132	0.0224
4	0.0116	0.0192	0.0163	0.0162	0.0267
5	0.0135	0.0185	0.0162	0.02	0.0345
6	0.0123	0.0175	0.0188	0.0278	0.0381
7	0.0108	0.0191	0.0233	0.0358	0.0396
8	0.0106	0.0208	0.0232	0.0381	0.0444
9	0.013	0.0211	0.0261	0.0399	0.0417
10	0.0149	0.0214	0.0256	0.039	0.0402
11	0.0149	0.0243	0.0237	0.0373	0.0388
12	0.0149	0.0281	0.0224	0.0378	0.0404
13	0.0138	0.0348	0.0218	0.0391	0.0393
14	0.0138	0.0348	0.0258	0.0386	0.0386

RD period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.0233	0.857	0.9998	0.841	0.9605
2	1	1	1	1	1
3	2.2957	1.329	1.3192	1.0777	1.3557
4	3.5146	1.9989	1.2385	1.0739	3.3004
5	3.588	1.7069	1.5521	1.8296	4.4803
6	5.1568	1.7499	1.847	3.766	4.196
7	5.9113	3.0299	2.262	3.4597	5.3313
8	5.7104	5.3424	3.104	4.1962	5.7899

RD period prevalence relative MSE (day 2 ref)

9	4.8703	21.2122	1.8517	1.8124	1.3452
10	5.6933	21.8918	1.789	1.7394	1.4578
11	5.6933	22.8326	1.7634	1.7394	1.401
12	5.6933	26.5128	1.8284	1.8209	1.3638
13	4.8527	33.337	1.8472	1.762	1.3499
14	4.8527	33.337	1.9183	1.7596	1.3309

RD daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0138	0.0371	0.0069	-0.0041	0.0202
2	0.0125	0.0313	0.0121	0.0048	0.0214
3	0.0119	0.0311	0.0075	0.0065	0.0117
4	0.0093	0.0336	0.0056	0.0062	0.0106
5	0.0098	0.0343	0.0049	0.0048	0.0065
6	0.0093	0.0354	0.0054	0.0039	0.0031
7	0.0073	0.0358	0.0064	0.0028	0.0011
8	0.0059	0.0339	0.0058	0.0022	-0.0006
9	0.0051	0.0317	0.0054	0.0015	-0.0019
10	0.0047	0.03	0.005	0.0007	-0.0035
11	0.0043	0.0285	0.005	-0.0002	-0.0043
12	0.004	0.0275	0.0051	-0.0008	-0.0044
13	0.0034	0.0275	0.0051	-0.0017	-0.0048
14	0.0028	0.0275	0.0053	-0.0023	-0.0045

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0082	0.0127	0.0105	0.0116	0.0202
2	0.0083	0.0127	0.009	0.0112	0.0197
3	0.0076	0.0131	0.0081	0.0107	0.02
4	0.0068	0.0124	0.0075	0.01	0.0189
5	0.0069	0.0115	0.0071	0.0092	0.0186
6	0.0067	0.0111	0.0068	0.0087	0.0177
7	0.0062	0.0109	0.0065	0.0083	0.0172
8	0.0058	0.0105	0.0059	0.0076	0.0168
9	0.0056	0.01	0.0054	0.007	0.0164
10	0.0056	0.0094	0.0049	0.0065	0.016
11	0.0053	0.0091	0.0046	0.0061	0.0155
12	0.0051	0.0087	0.0043	0.0058	0.0149
13	0.0048	0.0085	0.004	0.0055	0.0144
14	0.0045	0.0083	0.0038	0.0053	0.0139

RD daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0013	0.0058	-0.0052	-0.0089	-0.0011
2	0	0	0	0	0
3	-0.0006	-0.0002	-0.0047	0.0017	-0.0096
4	-0.0032	0.0023	-0.0065	0.0014	-0.0108
5	-0.0028	0.003	-0.0072	0.0001	-0.0149
6	-0.0032	0.0041	-0.0067	-0.0009	-0.0182
7	-0.0052	0.0045	-0.0057	-0.002	-0.0202
8	-0.0066	0.0026	-0.0063	-0.0025	-0.0219
9	-0.0074	0.0004	-0.0067	-0.0032	-0.0233
10	-0.0078	-0.0012	-0.0071	-0.004	-0.0249
11	-0.0082	-0.0027	-0.0071	-0.005	-0.0257
12	-0.0085	-0.0037	-0.007	-0.0056	-0.0258
13	-0.0092	-0.0038	-0.0071	-0.0065	-0.0261
14	-0.0097	-0.0037	-0.0068	-0.0071	-0.0259

RD daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	10.0572	18.6647	42.8571	185.9218	5.2782

9	1.8685	2.3837	5.6106	12.3758	4.1803
10	2.4751	2.4361	5.3842	11.7813	3.8917
11	2.4751	3.1602	4.6128	10.7752	3.6251
12	2.4751	4.2096	4.1152	11.0858	3.9223
13	2.1201	6.4506	3.9164	11.8675	3.722
14	2.1201	6.4506	5.4939	11.5791	3.5779

RD daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0025	0.0161	-0.0019	0.0144	-0.0111
2	0.0017	0.0132	-0.0038	0.012	-0.0104
3	0.0019	0.0161	-0.0006	0.0115	-0.0073
4	0.0042	0.0177	0.0025	0.0122	-0.001
5	0.0047	0.0167	0.0044	0.0136	0.0033
6	0.0031	0.0155	0.0059	0.0151	0.0049
7	0.0017	0.0153	0.0082	0.0166	0.0064
8	0.0011	0.0152	0.0076	0.0166	0.0083
9	0.0007	0.0149	0.007	0.017	0.0094
10	0.0006	0.014	0.0064	0.0168	0.0086
11	0.0004	0.0139	0.006	0.0162	0.0074
12	0.0003	0.0142	0.0055	0.0156	0.0068
13	-0.0002	0.0146	0.0049	0.0151	0.006
14	-0.0006	0.0148	0.0048	0.0146	0.0054

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0081	0.0126	0.0105	0.0095	0.0166
2	0.0081	0.0123	0.0099	0.0089	0.0166
3	0.0078	0.0124	0.0087	0.0089	0.0166
4	0.0074	0.012	0.0082	0.0086	0.0162
5	0.0067	0.0119	0.0078	0.0083	0.0154
6	0.0057	0.0114	0.0075	0.0079	0.0143
7	0.005	0.011	0.0075	0.0076	0.0137
8	0.0045	0.0106	0.0068	0.007	0.0132
9	0.0041	0.0099	0.0063	0.0065	0.0129
10	0.0039	0.0094	0.0059	0.0061	0.0123
11	0.0036	0.0089	0.0054	0.0058	0.0117
12	0.0034	0.0085	0.0051	0.0055	0.0112
13	0.0032	0.0081	0.0048	0.0053	0.0108
14	0.0031	0.0077	0.0046	0.0051	0.0105

RD daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0008	0.003	0.0019	0.0024	-0.0007
2	0	0	0	0	0
3	0.0002	0.0029	0.0032	-0.0005	0.0032
4	0.0025	0.0045	0.0064	0.0001	0.0095
5	0.003	0.0036	0.0083	0.0016	0.0138
6	0.0014	0.0023	0.0098	0.0031	0.0153
7	0.0001	0.0022	0.012	0.0046	0.0168
8	-0.0006	0.002	0.0115	0.0046	0.0187
9	-0.001	0.0017	0.0109	0.005	0.0199
10	-0.0011	0.0008	0.0103	0.0047	0.019
11	-0.0012	0.0008	0.0098	0.0042	0.0178
12	-0.0013	0.0011	0.0093	0.0036	0.0172
13	-0.0018	0.0014	0.0088	0.0031	0.0165
14	-0.0023	0.0016	0.0087	0.0026	0.0159

RD daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	48.0478	22.4832	50.432	19.7016	6.5332

9	4.6722	5.8244	4.6572	4.7306	5.1928
10	3.9609	5.9826	3.97	4.7735	4.8866
11	3.9609	7.0205	3.5788	4.5241	5.3736
12	3.9609	7.6845	3.3114	5.3103	5.8528
13	3.6083	7.0771	3.2105	4.9555	5.5967
14	3.6083	7.0771	3.7556	4.6594	5.4223

RD daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.028	0.0193	0.0071	0.0681	0.0149
2	0.0274	0.018	0.0093	0.0637	0.0142
3	0.025	0.0196	0.0101	0.06	0.0191
4	0.0232	0.02	0.0084	0.0499	0.0275
5	0.0216	0.0186	0.0087	0.0465	0.0306
6	0.0189	0.0182	0.0084	0.0463	0.0299
7	0.0172	0.0189	0.0092	0.0448	0.0304
8	0.0161	0.0204	0.0094	0.0395	0.0301
9	0.0139	0.0203	0.0102	0.035	0.0287
10	0.0115	0.0196	0.0103	0.0313	0.0265
11	0.01	0.0191	0.0098	0.0279	0.0254
12	0.0086	0.0187	0.0088	0.0256	0.025
13	0.0075	0.0179	0.0077	0.0237	0.0236
14	0.0066	0.0172			

2	0	0	0	0	0
3	4.9798	0.6103	38.4615	35.7697	45.1187
4	25.7009	7.5013	53.5714	29.0642	50.4828
5	22.07	9.6001	59.8535	1.257	69.7443
6	25.4429	13.1946	55.6166	19.2163	85.3469
7	41.3546	14.4289	46.7818	41.7744	94.7109
8	52.734	8.4118	52.2436	52.9807	102.5952
9	58.9715	1.3015	55.3114	67.605	108.7762
10	62.5415	3.9045	58.8278	84.6071	116.302
11	65.6374	8.7564	58.8079	103.809	120.1929
12	68.2173	11.9514	57.906	117.6536	120.7835
13	73.188	11.9999	58.2699	135.0286	122.2759
14	77.4485	11.9585	56.2533	148.6326	121.282

RD daily prevalence root MSE

2	0	0	0	0	0
3	11.3413	22.2189	83.6933	4.122	30.3815
4	152.1315	34.4839	165.4158	1.1069	90.7163
5	181.9602	27.0127	215.0324	13.1624	132.0652
6	84.5817	17.806	253.3297	25.7688	146.6956
7	4.3028	16.5531	312.1567	37.981	161.5396
8	33.6355	15.5666	298.3801	38.1326	179.6522
9	57.8043	12.838	282.7694	41.2867	190.5425
10	65.5299	6.2378	267.149	39.2121	182.0291
11	73.669	5.868	254.8989	34.4733	170.6837
12	80.4515	8.1046	242.3236	29.7863	164.9362
13	110.3647	10.7658	228.2937	25.6793	157.8086
14	136.0046	12.0729	224.7994	21.6734	152.0576

RD daily prevalence root MSE

India HP	India MP	Indonesia	Peru	Senegal
1	0.0083	0.014	0.0117	0.0146
2	0.0083	0.0127	0.009	0.0112
3	0.0076	0.0131	0.0094	0.0108
4	0.0076	0.0126	0.0099	0.0101
5	0.0074	0.0119	0.0102	0.0092
6	0.0075	0.0119	0.0096	0.0087
7	0.0081	0.0118	0.0086	0.0085
8	0.0088	0.0108	0.0087	0.0081
9	0.0093	0.01	0.0086	0.0077
10	0.0096	0.0095	0.0087	0.0077
11	0.0098	0.0095	0.0085	0.0078
12	0.01	0.0095	0.0082	0.0081
13	0.0103	0.0093	0.0081	0.0085
14	0.0107	0.0091	0.0078	0.0088

RD daily prevalence relative MSE (day 2 ref)

India HP	India MP	Indonesia	Peru	Senegal
1	0.9962	1.2077	1.6841	1.7018
2	1	1	1	1
3	0.8266	1.0575	1.0835	0.9272
4	0.8231	0.9767	1.2183	0.8075
5	0.7947	0.8793	1.274	0.6667
6	0.8002	0.8712	1.1243	0.6022
7	0.9437	0.8641	0.9139	0.5798
8	1.1132	0.7225	0.9232	0.5151
9	1.2384	0.6128	0.9062	0.4747
10	1.3292	0.5606	0.9226	0.465
11	1.3789	0.5534	0.8827	0.4893
12	1.4287	0.5579	0.8299	0.5154
13	1.5369	0.5328	0.8111	0.5714
14	1.6426	0.513	0.7477	0.6199

RD daily prevalence relative MSE (day 2 ref)

India HP	India MP	Indonesia	Peru	Senegal
1	0.0082	0.013	0.0107	0.0098
2	0.0081	0.0123	0.0099	0.0089
3	0.0078	0.0127	0.0093	0.0089
4	0.0078	0.0128	0.0104	0.0086
5	0.0074	0.0124	0.0113	0.0085
6	0.0059	0.0116	0.0123	0.0085
7	0.005	0.0113	0.0142	0.0089
8	0.0046	0.0108	0.0133	0.0084
9	0.0043	0.0101	0.0126	0.0082
10	0.004	0.0095	0.0118	0.0077
11	0.0038	0.0089	0.0112	0.0071
12	0.0037	0.0085	0.0106	0.0066
13	0.0037	0.0082	0.01	0.0061
14	0.0038	0.0079	0.0098	0.0057

RD daily prevalence relative MSE (day 2 ref)

India HP	India MP	Indonesia	Peru	Senegal
1	1.0103	1.11	1.1771	1.2248
2	1	1	1	1
3	0.9079	1.0691	0.888	1.0103
4	0.9254	1.0795	1.1047	0.9394
5	0.8219	1.0096	1.3161	0.91
6	0.5177	0.8885	1.553	0.924
7	0.384	0.8342	2.0543	1.0063
8	0.3165	0.7659	1.8214	0.8994
9	0.2742	0.668	1.6162	0.8549
10	0.2469	0.5893	1.4343	0.7571
11	0.2237	0.5254	1.2868	0.6406
12	0.2064	0.4793	1.1546	0.5473
13	0.2103	0.4417	1.0255	0.4749
14	0.2211	0.4084	0.9818	0.4119

RD daily prevalence relative MSE (day 2 ref)

2	0	0	0	0	0
3	8.8053	9.3003	7.8901	5.8611	34.3887
4	15.2994	11.2944	10.5373	21.6945	93.5356
5	21.1353	3.8533	6.7635	26.9708	115.6025
6	31.0449	1.4025	9.7023	27.3773	110.6714
7	37.1201	5.3425	1.1567	29.6676	114.3611
8	41.468	13.831	1.0708	38.0775	111.8953
9	49.1597	12.8505	9.0698	45.0634	102.1206
10	57.9547	9.0261	10.4209	50.9254	86.5084
11	63.6918	6.5067	4.7523	56.2228	79.3076
12	68.4728	4.1278	5.9193	59.8635	76.4732
13	72.5182	0.0838	17.4667	62.8354	66.139
14	75.9857	4.1929	25.0267	65.9146	57.5386

RD daily prevalence root MSE

India HP	India MP	Indonesia	Peru	Senegal
1	0.0106	0.0123	0.0133	0.0208
2	0.0103	0.0118	0.0128	0.0201
3	0.0099	0.0113	0.0118	0.0194
4	0.0101	0.0108	0.0109	0.0221
5	0.0106	0.0101	0.0101	0.0233
6	0.0117	0.0097	0.0095	0.0227
7	0.0128	0.0095	0.0092	0.0233
8	0.0136	0.0094	0.0084	0.0273
9	0.0151	0.0089	0.008	0.0309
10	0.0171	0.0083	0.0077	0.0342
11	0.0183	0.0077	0.0073	0.0372
12	0.0194	0.0072	0.0068	0.0392
13	0.0204	0.0068	0.0066	0.041
14	0.0213	0.0065	0.0064	0.0428

RD daily prevalence relative MSE (day 2 ref)

India HP	India MP	Indonesia	Peru	Senegal
1	1.056	1.0917	1.0783	1.0745
2	1	1	1	1
3	0.9206	0.9147	0.8543	0.9349
4	0.9616	0.8293	0.7317	1.2089
5	1.0676	0.7312	0.6286	1.3526
6	1.2973	0.6751	0.5504	1.2832
7	1.5431	0.6423	0.5211	1.3505
8	1.7474	0.6386	0.435	1.8469
9	2.1469	0.5677	0.3939	2.3753
10	2.7412	0.4908	0.3634	2.8989
11	3.169	0.4197	0.3226	3.4326
12	3.5663	0.3746	0.2837	3.8271
13	3.9383	0.3332	0.2624	4.1714
14	4.2778	0.3054	0.2517	4.5523

Sheet 3

Fever, Anemic vs. Not Anemic

PR period prevalence (File created by recall-empirical-tables.R / fever, anemia)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.009	1.0344	1.3205	0.7674	1.243
2	1.1709	1.0049	1.1108	0.8644	1.2368
3	1.1527	1.0553	1.1474	0.9374	1.0746
4	1.2076	0.9978	1.1107	0.9448	1.1197
5	1.2727	0.9794	1.1138	0.9771	1.0082
6	1.2938	1.0217	1.1441	0.947	1.044
7	1.3394	1.1181	1.1574	0.924	1.0671
8	1.3268	1.1764	1.1617	0.9403	1.0853
9	1.3194	1.2119	1.171	0.9417	1.089
10	1.3016	1.2323	1.167	0.9582	1.0991
11	1.2954	1.242	1.1864	0.962	1.0767
12	1.2931	1.2436	1.1718	0.9694	1.0239
13	1.2902	1.3146	1.18	0.963	1.0442
14	1.2902	1.3201	1.1803	0.9621	1.0338

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.159	0.2043	0.1985	0.113	0.2916
2	0.1444	0.1635	0.1306	0.1047	0.2778
3	0.125	0.1418	0.1227	0.0994	0.1725
4	0.1153	0.1318	0.1129	0.0896	0.1512
5	0.1147	0.1268	0.1017	0.0892	0.1245
6	0.1066	0.1332	0.0975	0.0762	0.1224
7	0.1105	0.1292	0.0914	0.0682	0.1193
8	0.1125	0.1312	0.091	0.0669	0.1192
9	0.1093	0.129	0.0907	0.0662	0.1159
10	0.1046	0.1316	0.0868	0.0667	0.1186
11	0.0988	0.1269	0.0856	0.0668	0.1054
12	0.0949	0.122	0.0848	0.0661	0.0934
13	0.0923	0.1276	0.0842	0.0644	0.0946
14	0.0923	0.1277	0.0834	0.0645	0.0935

PR period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.1619	0.0295	0.2097	-0.097	0.0062
2	0	0	0	0	0
3	-0.0182	0.0504	0.0366	0.073	-0.1622
4	0.0367	-0.0071	-0.0001	0.0804	-0.1171
5	0.1018	-0.0254	0.003	0.1127	-0.2287
6	0.123	0.0169	0.0333	0.0827	-0.1928
7	0.1685	0.1133	0.0466	0.0596	-0.1698
8	0.1559	0.1716	0.0509	0.0759	-0.1516
9	0.1485	0.2071	0.0602	0.0773	-0.1478
10	0.1307	0.2274	0.0561	0.0938	-0.1377
11	0.1245	0.2372	0.0756	0.0977	-0.1693
12	0.1222	0.2387	0.061	0.105	-0.2129
13	0.1193	0.3098	0.0692	0.0986	-0.1926
14	0.1193	0.3153	0.0695	0.0978	-0.203

PR period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	13.8244	2.9398	18.8782	11.2168	0.4989
2	0	0	0	0	0
3	1.554	5.0174	3.292	8.4438	13.1148
4	3.1339	0.7027	0.0134	9.301	9.4718
5	8.6932	2.5292	0.268	13.0358	18.4882

Fever, Stunted vs. Not Stunted

PR period prevalence (File created by recall-empirical-tables.R / fever, haz)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.4569	1.2858	1.265	1.2248	0.9835
2	1.5794	1.247	1.3538	1.1505	1.0657
3	1.4703	1.257	1.4365	1.1808	1.1046
4	1.4778	1.2874	1.401	1.1873	1.1335
5	1.4715	1.2309	1.3772	1.2468	1.0795
6	1.5234	1.2093	1.3646	1.2903	1.0594
7	1.5376	1.2128	1.3818	1.2705	1.0616
8	1.5315	1.2197	1.3687	1.2672	1.0689
9	1.5133	1.2215	1.3615	1.2574	1.0646
10	1.4711	1.242	1.337	1.2683	1.1025
11	1.4629	1.2285	1.3191	1.2507	1.0923
12	1.4617	1.2478	1.2968	1.2557	1.0931
13	1.4576	1.2262	1.3011	1.2468	1.0975
14	1.4542	1.2093	1.2895	1.2511	1.0938

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1854	0.2108	0.1873	0.1853	0.1375
2	0.1777	0.1529	0.1589	0.142	0.1186
3	0.1441	0.1277	0.1516	0.1217	0.1114
4	0.1341	0.1322	0.1351	0.1087	0.1039
5	0.1191	0.1193	0.117	0.1091	0.0928
6	0.1135	0.1148	0.108	0.1039	0.087
7	0.1099	0.1088	0.0984	0.0938	0.086
8	0.1074	0.1017	0.0988	0.0902	0.0828
9	0.1055	0.1008	0.0979	0.0885	0.0787
10	0.0971	0.1044	0.0942	0.0866	0.0748
11	0.0875	0.1016	0.0927	0.0849	0.0733
12	0.0849	0.1024	0.0905	0.084	0.0725
13	0.0829	0.097	0.0904	0.0822	0.0727
14	0.0825	0.0963	0.0894	0.0823	0.0725

PR period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.1225	0.0389	-0.0888	0.0743	-0.0821
2	0	0	0	0	0
3	-0.1091	0.01	0.0828	0.0303	0.0389
4	-0.1016	0.0404	0.0472	0.0368	0.0678
5	-0.1079	-0.0161	0.0235	0.0963	0.0138
6	-0.056	-0.0377	0.0108	0.1398	-0.0063
7	-0.0418	-0.0341	0.0281	0.12	-0.0041
8	-0.0479	-0.0273	0.0149	0.1167	0.0032
9	-0.0661	-0.0255	0.0078	0.1069	-0.0011
10	-0.1082	-0.005	-0.0167	0.1178	0.0368
11	-0.1165	-0.0185	-0.0347	0.1002	0.0266
12	-0.1177	0.0099	-0.0569	0.1052	0.0274
13	-0.1217	-0.0208	-0.0527	0.0964	0.0318
14	-0.1251	-0.0377	-0.0643	0.1006	0.0281

PR period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	7.7532	3.1172	6.5581	6.4617	7.7083
2	0	0	0	0	0
3	6.9086	0.8	6.1147	2.637	3.6506
4	6.4336	3.2436	3.4891	3.1962	6.3596
5	6.83	1.2891	1.7324	8.3723	1.2957

Fever, Underweight vs. Not Underweight

PR period prevalence (File created by recall-empirical-tables.R / fever, waz)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.7893	1.3742	1.3411	1.9034	1.151
2	1.7601	1.4712	1.245	1.5093	1.1656
3	1.7737	1.5298	1.3981	1.5898	1.1293
4	1.751	1.4939	1.2995	1.493	1.2255
5	1.6886	1.3598	1.2715	1.5664	1.2696
6	1.6379	1.3309	1.264	1.6127	1.2804
7	1.6103	1.3385	1.2824	1.5696	1.2976
8	1.5852	1.3217	1.2599	1.5465	1.3332
9	1.5623	1.3367	1.2699	1.5736	1.3271
10	1.5385	1.3302	1.2466	1.6017	1.3331
11	1.5126	1.3541	1.2367	1.5851	1.3081
12	1.5092	1.3544	1.2153	1.5572	1.297
13	1.5044	1.3577	1.23	1.5507	1.2786
14	1.5132	1.3652	1.2375	1.5328	1.273

PR period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2591	0.1997	0.1923	0.28	0.1686
2	0.2031	0.1901	0.1574	0.2073	0.1325
3	0.1775	0.1733	0.1553	0.1885	0.1119
4	0.1462	0.1543	0.1342	0.1664	0.1043
5	0.1252	0.1277	0.1213	0.1566	0.1013
6	0.1149	0.1206	0.1123	0.1433	0.0899
7	0.1082	0.1214	0.1057	0.1227	0.0921
8	0.1038	0.1091	0.1044	0.1172	0.0876
9	0.1007	0.1067	0.1036	0.1159	0.084
10	0.0984	0.1042	0.1004	0.1156	0.08
11	0.0959	0.1036	0.0988	0.1135	0.0791
12	0.0939	0.1014	0.0969	0.1	

6	10.5006	1.6781	2.9995	9.5636	15.5882
7	14.3879	11.2706	4.196	6.8983	13.726
8	13.3159	17.0741	4.5796	8.7786	12.2548
9	12.6833	20.607	5.4178	8.9452	11.9513
10	11.1623	22.634	5.0538	10.8553	11.1371
11	10.6291	23.6008	6.8031	11.2982	13.686
12	10.438	23.7576	5.4914	12.1488	17.2131
13	10.1919	30.8265	6.2284	11.4117	15.5738
14	10.1919	31.3732	6.2539	11.3102	16.4165

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2269	0.2064	0.2888	0.1489	0.2917
2	0.1444	0.1635	0.1306	0.1047	0.2778
3	0.1264	0.1505	0.128	0.1233	0.2368
4	0.121	0.132	0.1129	0.1204	0.1912
5	0.1534	0.1293	0.1018	0.1437	0.2604
6	0.1627	0.1343	0.1031	0.1124	0.2284
7	0.2015	0.1718	0.1026	0.0906	0.2075
8	0.1923	0.216	0.1043	0.1011	0.1928
9	0.1844	0.244	0.1089	0.1018	0.1879
10	0.1674	0.2628	0.1034	0.1151	0.1818
11	0.1589	0.269	0.1141	0.1183	0.1994
12	0.1547	0.2681	0.1044	0.1241	0.2325
13	0.1509	0.335	0.1089	0.1178	0.2146
14	0.1509	0.3401	0.1085	0.1171	0.2235

PR period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	2.4703	1.5935	4.8893	2.0241	1.1027
2	1	1	1	1	1
3	0.7659	0.8477	0.961	1.3872	0.7263
4	0.7021	0.652	0.747	1.3224	0.474
5	1.1284	0.6259	0.6075	1.8853	0.8784
6	1.2699	0.6745	0.6228	1.1529	0.6759
7	1.9469	1.1044	0.6168	0.7492	0.558
8	1.773	1.7449	0.6378	0.9334	0.4819
9	1.6313	2.2273	0.6949	0.9459	0.4573
10	1.3445	2.5836	0.6265	1.2094	0.4282
11	1.2108	2.7064	0.7641	1.2779	0.5151
12	1.1484	2.6889	0.6395	1.405	0.7003
13	1.0917	4.1988	0.696	1.2659	0.5968
14	1.0917	4.3286	0.6908	1.2517	0.6476

PR daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.009	1.0344	1.3205	0.7674	1.243
2	1.1211	1.0276	1.1576	0.7843	1.2621
3	1.1129	1.0662	1.1557	0.8343	1.1811
4	1.1672	1.0135	1.1153	0.8709	1.1856
5	1.2239	0.9379	1.1015	0.887	1.1563
6	1.2699	0.9224	1.1041	0.8755	1.1385
7	1.296	0.9465	1.1275	0.869	1.1062
8	1.3282	0.9604	1.143	0.8634	1.0965
9	1.3543	0.9891	1.1556	0.8553	1.0991
10	1.3565	1.0146	1.156	0.8588	1.1075
11	1.3624	1.0519	1.1558	0.8612	1.1087
12	1.372	1.0652	1.1581	0.8649	1.0954
13	1.3767	1.0912	1.1572	0.8641	1.0917
14	1.3814	1.1125	1.1563	0.859	1.085

PR daily prevalence SE

6	3.5452	3.0218	0.7991	12.1483	0.5891
7	2.6465	2.7368	2.0726	10.432	0.3836
8	3.0307	2.1898	1.1013	10.1436	0.3019
9	4.186	2.0452	0.5747	9.29	0.1025
10	6.8522	0.4	1.2359	10.2357	3.4551
11	7.3765	1.4823	2.5629	8.7061	2.498
12	7.4493	0.0696	4.2048	9.1461	2.5698
13	7.708	1.6671	3.8896	8.3747	2.9846
14	7.9236	3.0234	4.7493	8.7405	2.6383

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2222	0.2143	0.2073	0.1997	0.1602
2	0.1777	0.1529	0.1589	0.142	0.1186
3	0.1807	0.1281	0.1727	0.1254	0.118
4	0.1682	0.1383	0.1431	0.1148	0.124
5	0.1607	0.1203	0.1194	0.1455	0.0938
6	0.1265	0.1208	0.1086	0.1741	0.0873
7	0.1176	0.114	0.1024	0.1523	0.0861
8	0.1176	0.1053	0.0999	0.1475	0.0829
9	0.1245	0.104	0.0982	0.1388	0.0787
10	0.1454	0.1045	0.0957	0.1462	0.0834
11	0.1457	0.1033	0.099	0.1313	0.078
12	0.1451	0.1024	0.1069	0.1347	0.0775
13	0.1473	0.0992	0.1046	0.1266	0.0794
14	0.1499	0.1034	0.1101	0.1299	0.0778

PR period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.5637	1.9638	1.7017	1.9784	1.8228
2	1	1	1	1	1
3	1.0349	0.7011	1.1816	0.7806	0.9891
4	0.8965	0.8175	0.8113	0.6536	1.0932
5	0.818	0.6192	0.5643	1.0513	0.6254
6	0.5072	0.6237	0.4668	1.5051	0.5411
7	0.4382	0.5558	0.415	1.1513	0.5264
8	0.4379	0.4738	0.3955	1.0795	0.4878
9	0.4914	0.4623	0.3822	0.9557	0.4404
10	0.6697	0.4672	0.3627	1.0606	0.4941
11	0.6724	0.4561	0.3882	0.856	0.4318
12	0.6667	0.4484	0.4529	0.9	0.4269
13	0.6872	0.4209	0.4338	0.796	0.4479
14	0.7119	0.4569	0.4802	0.8379	0.4299

PR daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.4569	1.2858	1.265	1.2248	0.9835
2	1.5817	1.296	1.2983	1.2435	1.0569
3	1.5783	1.3368	1.3757	1.2369	1.1011
4	1.6037	1.3403	1.3881	1.2556	1.1374
5	1.5918	1.316	1.3709	1.3234	1.1486
6	1.5727	1.2785	1.3719	1.3633	1.1393
7	1.583	1.2588	1.3581	1.3716	1.1272
8	1.5862	1.2487	1.3668	1.378	1.1187
9	1.5857	1.2632	1.3646	1.3704	1.1157
10	1.5574	1.2763	1.3539	1.3795	1.1151
11	1.5461	1.2754	1.3466	1.3793	1.1158
12	1.5476	1.2867	1.3275	1.3861	1.1155
13	1.5534	1.2839	1.3169	1.3852	1.1107
14	1.5515	1.2753	1.3016	1.3905	1.1023

PR daily prevalence SE

6	6.9426	9.537	1.528	6.8561	9.8538
7	8.5138	9.0203	3.0048	3.9971	11.3246
8	9.9374	10.1619	1.1986	2.4697	14.3806
9	11.2363	9.1455	1.9981	4.2647	13.8603
10	12.5902	9.5885	0.1274	6.125	14.3695
11	14.0625	7.9604	0.6645	5.0241	12.2242
12	14.2556	7.9416	2.3874	3.1771	11.2727
13	14.5303	7.716	0.9628	2.7461	9.7004
14	14.0304	7.208	0.6006	1.5583	9.2123

PR period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2607	0.2221	0.215	0.4835	0.1692
2	0.2031	0.1901	0.1574	0.2073	0.1325
3	0.178	0.183	0.2181	0.205	0.1176
4	0.1464	0.1559	0.1449	0.1672	0.1202
5	0.1442	0.1694	0.1241	0.1667	0.1452
6	0.1677	0.185	0.1139	0.1768	0.1459
7	0.1848	0.1799	0.1121	0.1367	0.1609
8	0.2034	0.1851	0.1055	0.123	0.1891
9	0.2219	0.1717	0.1065	0.1326	0.1821
10	0.2424	0.1754	0.1004	0.148	0.1856
11	0.2655	0.1564	0.0991	0.1365	0.163
12	0.2679	0.1547	0.1014	0.1216	0.1519
13	0.2723	0.1518	0.0958	0.1165	0.1375</td

	India HP	India MP	Indonesia	Peru	Senegal
1	0.159	0.2043	0.1985	0.113	0.2916
2	0.1536	0.1767	0.1474	0.1014	0.2852
3	0.1381	0.1636	0.1347	0.1014	0.2321
4	0.132	0.1486	0.1261	0.1023	0.2186
5	0.1267	0.1341	0.119	0.0977	0.1894
6	0.1224	0.1324	0.1136	0.0901	0.1711
7	0.1202	0.1325	0.112	0.0833	0.1572
8	0.1244	0.1318	0.1129	0.0798	0.1533
9	0.128	0.1321	0.1146	0.0777	0.1502
10	0.1296	0.1347	0.1147	0.0772	0.1505
11	0.1291	0.1375	0.1149	0.0767	0.1472
12	0.1287	0.1376	0.1161	0.0758	0.139
13	0.1274	0.1368	0.1175	0.0746	0.1359
14	0.127	0.1375	0.12	0.0734	0.1343

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.112	0.0068	0.163	-0.0169	-0.0191
2	0	0	0	0	0
3	-0.0081	0.0386	-0.0019	0.05	-0.081
4	0.0462	-0.0141	-0.0423	0.0866	-0.0765
5	0.1029	-0.0897	-0.0561	0.1027	-0.1058
6	0.1488	-0.1051	-0.0535	0.0912	-0.1235
7	0.175	-0.081	-0.0301	0.0847	-0.1559
8	0.2072	-0.0672	-0.0145	0.0792	-0.1655
9	0.2333	-0.0385	-0.002	0.071	-0.163
10	0.2355	-0.0129	-0.0015	0.0745	-0.1545
11	0.2414	0.0243	-0.0018	0.0769	-0.1534
12	0.2509	0.0376	0.0005	0.0806	-0.1666
13	0.2556	0.0636	-0.0003	0.0798	-0.1704
14	0.2604	0.085	-0.0012	0.0748	-0.1771

PR daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	9.9929	0.6655	14.0768	2.1507	1.511
2	0	0	0	0	0
3	0.7248	3.7571	0.1602	6.3753	6.418
4	4.1169	1.3678	3.6514	11.0393	6.061
5	9.175	8.7251	4.8444	13.0934	8.3797
6	13.2757	10.2326	4.6194	11.6249	9.7894
7	15.6067	7.8861	2.6026	10.7985	12.3506
8	18.4806	6.5391	1.2553	10.0929	13.1171
9	20.8067	3.7439	0.1747	9.0567	12.9133
10	21.005	1.2601	0.1338	9.4949	12.2443
11	21.5295	2.3681	0.1567	9.8012	12.1555
12	22.3841	3.6627	0.0436	10.279	13.203
13	22.8	6.1939	0.0288	10.1716	13.4999
14	23.2275	8.2691	0.1072	9.5312	14.0321

PR daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1945	0.2044	0.2568	0.1143	0.2923
2	0.1536	0.1767	0.1474	0.1014	0.2852
3	0.1384	0.1681	0.1347	0.113	0.2459
4	0.1398	0.1493	0.133	0.134	0.2316
5	0.1632	0.1613	0.1316	0.1418	0.2169
6	0.1927	0.169	0.1256	0.1282	0.2111
7	0.2123	0.1553	0.1159	0.1188	0.2214
8	0.2416	0.1479	0.1138	0.1124	0.2256
9	0.266	0.1376	0.1146	0.1053	0.2216

	India HP	India MP	Indonesia	Peru	Senegal
1	0.1854	0.2108	0.1873	0.1853	0.1375
2	0.1897	0.1788	0.1657	0.1631	0.1274
3	0.1748	0.1629	0.162	0.1477	0.1246
4	0.1648	0.1593	0.1535	0.1376	0.1227
5	0.1541	0.157	0.14	0.1357	0.1229
6	0.1442	0.1499	0.1297	0.1336	0.1173
7	0.136	0.144	0.1198	0.1287	0.1132
8	0.1332	0.1402	0.1174	0.1256	0.1118
9	0.1312	0.1384	0.1164	0.1226	0.1117
10	0.1264	0.1399	0.1132	0.1209	0.1094
11	0.1227	0.1401	0.1106	0.1198	0.1079
12	0.1211	0.1408	0.1065	0.1186	0.107
13	0.1202	0.1397	0.1038	0.1171	0.1065
14	0.1207	0.1393	0.1018	0.1171	0.1064

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.1248	-0.0102	-0.0333	-0.0186	-0.0734
2	0	0	0	0	0
3	-0.0034	0.0408	0.0774	-0.0066	0.0442
4	0.022	0.0443	0.0898	0.0121	0.0805
5	0.0101	0.0199	0.0726	0.08	0.0917
6	-0.009	-0.0176	0.0736	0.1198	0.0824
7	0.0013	-0.0372	0.0598	0.1281	0.0702
8	0.0045	-0.0474	0.0684	0.1345	0.0618
9	0.004	-0.0328	0.0663	0.1269	0.0588
10	-0.0243	-0.0198	0.0556	0.136	0.0582
11	-0.0356	-0.0206	0.0483	0.1359	0.0589
12	-0.0341	-0.0094	0.0292	0.1426	0.0585
13	-0.0283	-0.0121	0.0186	0.1417	0.0538
14	-0.0302	-0.0207	0.0033	0.147	0.0453

PR daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	7.8894	0.7855	2.5681	1.4988	6.9444
2	0	0	0	0	0
3	0.2152	3.1478	5.9581	0.5284	4.1827
4	1.3921	3.4176	6.9191	0.9743	7.6128
5	0.6385	1.5373	5.5945	6.4296	8.6722
6	0.57	1.3544	5.6691	9.6327	7.7929
7	0.0817	2.8729	4.6026	10.3023	6.6454
8	0.2847	3.6548	5.2722	10.815	5.8477
9	0.2498	2.5338	5.1032	10.2038	5.5593
10	1.5368	1.5248	4.2812	10.9364	5.5044
11	2.2492	1.592	3.7183	10.9254	5.5708
12	2.1535	0.7233	2.2483	11.4691	5.5393
13	1.7872	0.9347	1.4353	11.395	5.0881
14	1.9122	1.5999	0.2543	11.8206	4.2873

PR daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2235	0.211	0.1902	0.1862	0.1559
2	0.1897	0.1788	0.1657	0.1631	0.1274
3	0.1748	0.168	0.1795	0.1479	0.1322
4	0.1663	0.1653	0.1778	0.1381	0.1467
5	0.1544	0.1583	0.1577	0.1575	0.1534
6	0.1445	0.151	0.1491	0.1795	0.1433
7	0.136	0.1487	0.1339	0.1816	0.1332
8	0.1332	0.148	0.1359	0.184	0.1278
9	0.1313	0.1422	0.1339	0.1764	0.1262

	India HP	India MP	Indonesia	Peru	Senegal
1	0.2591	0.1997	0.1923	0.28	0.1686
2	0.2267	0.1847	0.1667	0.246	0.1491
3	0.2001	0.1721	0.1564	0.2216	0.1336
4	0.1796	0.1664	0.1522	0.2112	0.1225
5	0.1657	0.1517	0.1444	0.2044	0.1245
6	0.1526	0.1398	0.1382	0.1924	0.1197
7	0.1452	0.1337	0.1284	0.1699	0.1189
8	0.1405	0.1313	0.1228	0.1609	0.1172
9	0.1386	0.1287	0.1222	0.1563	0.1175
10	0.1351	0.1249	0.1225	0.1552	0.1181
11	0.1345	0.1227	0.1216	0.1537	0.1216
12	0.1334	0.1214	0.1194	0.1516	0.1239
13	0.1326	0.1215	0.1179	0.149	0.1262
14	0.1327	0.1217	0.1172	0.1473	0.1273

PR daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0242	-0.0611	0.0815	0.1328	-0.0491
2	0	0	0	0	0
3	0.0025	0.032	0.0651	-0.0582	0.0138
4	0.0079	0.0439	0.0365	0.1219	0.0253
5	-0.023	-0.014	0.0093	-0.0896	0.0678
6	-0.0911	-0.0539	0.0111	-0.0837	0.0661
7	-0.1494	-0.0812	-0.0056	-0.1092	0.0828
8	-0.1917	-0.0926	-0.0188	-0.1289	0.1034
9	-0.216	-0.0844	-0.0238	-0.1372	0.122
10	-0.253				

10	0.2688	0.1353	0.1147	0.1072	0.2157
11	0.2737	0.1396	0.1149	0.1086	0.2126
12	0.282	0.1426	0.1161	0.1106	0.217
13	0.2856	0.1508	0.1175	0.1092	0.218
14	0.2897	0.1616	0.12	0.1048	0.2223

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.6043	1.3372	3.0368	1.2718	1.0505
2	1	1	1	1	1
3	0.8115	0.905	0.836	1.2442	0.7435
4	0.8286	0.7137	0.8143	1.7479	0.6595
5	1.1293	0.833	0.797	1.9565	0.5786
6	1.5745	0.9149	0.7263	1.6	0.5479
7	1.9105	0.7724	0.619	1.3732	0.6028
8	2.475	0.7004	0.5965	1.23	0.6261
9	3.0004	0.6061	0.6052	1.0795	0.6041
10	3.0626	0.5862	0.6058	1.1194	0.5722
11	3.1755	0.6241	0.6083	1.148	0.556
12	3.371	0.6513	0.6212	1.1918	0.5791
13	3.4576	0.7285	0.6362	1.1616	0.5842
14	3.5583	0.8364	0.663	1.0684	0.6077

RD period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0013	0.0031	0.0355	-0.0168	0.038
2	0.0304	0.0006	0.019	-0.0138	0.0483
3	0.033	0.0087	0.0288	-0.0082	0.0203
4	0.0508	-0.0004	0.025	-0.0085	0.0366
5	0.0721	-0.0041	0.0292	-0.0042	0.003
6	0.0849	0.0046	0.0398	-0.0117	0.0171
7	0.1023	0.0266	0.0479	-0.0199	0.0269
8	0.1008	0.0404	0.0503	-0.0162	0.0354
9	0.1017	0.0505	0.0539	-0.0161	0.0375
10	0.099	0.0565	0.0541	-0.0118	0.0425
11	0.0998	0.0615	0.0608	-0.0108	0.0303
12	0.1016	0.0649	0.0579	-0.009	0.0114
13	0.1021	0.0849	0.061	-0.0111	0.0211
14	0.1021	0.0869	0.0615	-0.0114	0.0163

RD period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0226	0.0176	0.0176	0.009	0.0321
2	0.0236	0.0209	0.0203	0.0112	0.0399
3	0.0252	0.0217	0.0214	0.0132	0.0404
4	0.0257	0.0229	0.0232	0.0139	0.0393
5	0.0268	0.0254	0.0239	0.0163	0.0429
6	0.0272	0.028	0.0242	0.0171	0.0433
7	0.0285	0.0278	0.0248	0.0183	0.0429
8	0.0299	0.0282	0.0252	0.0185	0.0437
9	0.0302	0.0285	0.0254	0.0187	0.0431
10	0.0301	0.0294	0.0251	0.0189	0.0444
11	0.0293	0.0294	0.0246	0.0192	0.0428
12	0.0291	0.0293	0.0254	0.0195	0.0423
13	0.0288	0.0301	0.0253	0.0194	0.0421
14	0.0288	0.0303	0.0251	0.0196	0.0426

RD period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0291	0.0024	0.0165	-0.0029	-0.0103
2	0	0	0	0	0
3	0.0026	0.0081	0.0098	0.0056	-0.028

10	0.1287	0.1412	0.1261	0.1819	0.1239
11	0.1278	0.1417	0.1207	0.1811	0.123
12	0.1258	0.1411	0.1104	0.1855	0.122
13	0.1234	0.1402	0.1055	0.1838	0.1193
14	0.1244	0.1408	0.1019	0.1879	0.1157

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.3876	1.3927	1.3183	1.3044	1.4977
2	1	1	1	1	1
3	0.849	0.8826	1.1737	0.8224	1.0776
4	0.7686	0.8551	1.1521	0.7177	1.3271
5	0.6626	0.7837	0.9061	0.9327	1.45
6	0.5805	0.7128	0.8098	1.211	1.2666
7	0.5137	0.6916	0.653	1.2395	1.0937
8	0.4934	0.6848	0.6729	1.2735	1.0068
9	0.4788	0.6326	0.6535	1.1705	0.9819
10	0.4601	0.6241	0.5794	1.2449	0.946
11	0.4536	0.6277	0.5306	1.234	0.9322
12	0.4399	0.6232	0.4441	1.2941	0.9177
13	0.4234	0.6149	0.4051	1.2705	0.878
14	0.4301	0.6204	0.378	1.3279	0.8252

RD period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0524	0.022	0.0323	0.0129	-0.003
2	0.0819	0.0275	0.0559	0.0129	0.0152
3	0.082	0.0346	0.0789	0.0204	0.0284
4	0.0954	0.042	0.0829	0.0251	0.0417
5	0.1045	0.0394	0.09	0.0392	0.0273
6	0.1261	0.0391	0.0958	0.0539	0.0222
7	0.1358	0.0429	0.1112	0.0589	0.0244
8	0.1368	0.0459	0.1102	0.0608	0.0286
9	0.1363	0.0486	0.1105	0.0601	0.0275
10	0.1293	0.054	0.106	0.0637	0.0448
11	0.1303	0.0536	0.1023	0.0608	0.041
12	0.1331	0.0605	0.0979	0.0637	0.0424
13	0.1341	0.0572	0.1005	0.0627	0.0453
14	0.1334	0.0537	0.0975	0.0643	0.0438

RD period prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0192	0.0146	0.0217	0.0098	0.0247
2	0.0222	0.0153	0.0235	0.0115	0.0272
3	0.0224	0.0154	0.0253	0.0129	0.0299
4	0.024	0.017	0.0259	0.0136	0.032
5	0.0234	0.0185	0.0259	0.016	0.0316
6	0.0233	0.0197	0.0263	0.0177	0.0322
7	0.0234	0.0202	0.0264	0.0187	0.0337
8	0.0232	0.0196	0.0274	0.0187	0.034
9	0.0236	0.0204	0.0277	0.0188	0.0331
10	0.0231	0.0213	0.0275	0.0187	0.0322
11	0.0216	0.0218	0.0276	0.0188	0.0321
12	0.0214	0.0225	0.0279	0.019	0.0326
13	0.0214	0.0224	0.0283	0.019	0.0333
14	0.0214	0.0226	0.0283	0.0192	0.0333

RD period prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0295	-0.0055	-0.0236	0	-0.0182
2	0	0	0	0	0
3	0.0001	0.007	0.0231	0.0076	0.0132

10	0.2873	0.1477	0.126	0.1961	0.1864
11	0.3114	0.141	0.1286	0.1937	0.1998
12	0.3324	0.1316	0.1368	0.2	0.2032
13	0.3488	0.1278	0.1401	0.2133	0.1999
14	0.3614	0.1247	0.1447	0.2289	0.1945

PR daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.3172	1.279	1.5711	1.5871	1.3875
2	1	1	1	1	1
3	0.7788	0.8984	1.033	0.868	0.8117
4	0.6288	0.868	0.8823	0.9828	0.704
5	0.5446	0.6807	0.7535	0.8235	0.9048
6	0.6146	0.6585	0.6919	0.7277	0.8415
7	0.8448	0.7178	0.5946	0.6744	0.9448
8	1.099	0.7566	0.5558	0.7024	1.0987
9	1.2815	0.6946	0.5579	0.7149	1.2908
10	1.6057	0.64	0.5714	0.6354	1.5628
11	1.8866	0.583	0.5954	0.6204	1.7972
12	2.1496	0.508			

4	0.0204	-0.001	0.006	0.0054	-0.0117
5	0.0417	-0.0048	0.0102	0.0096	-0.0453
6	0.0545	0.004	0.0208	0.0021	-0.0313
7	0.072	0.026	0.0289	-0.006	-0.0214
8	0.0704	0.0398	0.0312	-0.0024	-0.013
9	0.0713	0.0499	0.0349	-0.0023	-0.0108
10	0.0686	0.0559	0.035	0.0021	-0.0059
11	0.0694	0.0609	0.0417	0.003	-0.018
12	0.0713	0.0643	0.0389	0.0049	-0.0369
13	0.0717	0.0842	0.042	0.0028	-0.0273
14	0.0717	0.0862	0.0425	0.0024	-0.032

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	95.6512	382.9694	86.7133	21.1614	21.3357
2	0	0	0	0	0
3	8.6056	1275.1092	51.5152	40.7642	57.9887
4	67.1077	160.917	31.4685	38.6979	24.1992
5	137.1376	750.4367	53.38	69.6606	93.7973
6	179.2913	630.3493	109.0909	15.1167	64.6768
7	236.8155	4089.083	151.7483	43.4347	44.3118
8	231.7533	6265.9389	164.1026	17.0673	26.8006
9	234.5605	7860.0437	183.2168	16.582	22.3258
10	225.6558	8796.7249	184.1492	15.0942	12.1433
11	228.463	9586.0262	219.3473	21.8073	37.2452
12	234.503	10129.0393	204.1958	35.2336	76.4221
13	235.9066	13266.8122	220.7459	20.1234	56.4454
14	235.9066	13579.0393	223.31	17.469	66.2396

RD period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0368	0.0178	0.0241	0.0094	0.0337
2	0.0236	0.0209	0.0203	0.0112	0.0399
3	0.0254	0.0232	0.0235	0.0144	0.0492
4	0.0328	0.023	0.024	0.0149	0.041
5	0.0495	0.0259	0.026	0.019	0.0624
6	0.0609	0.0283	0.0319	0.0173	0.0534
7	0.0774	0.038	0.0381	0.0192	0.0479
8	0.0765	0.0487	0.0402	0.0186	0.0456
9	0.0774	0.0574	0.0431	0.0188	0.0444
10	0.0749	0.0631	0.0431	0.0191	0.0447
11	0.0754	0.0676	0.0485	0.0195	0.0464
12	0.077	0.0707	0.0464	0.0201	0.0561
13	0.0772	0.0895	0.049	0.0196	0.0501
14	0.0772	0.0914	0.0494	0.0198	0.0533

RD period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	2.437	0.7209	1.4125	0.712	0.7142
2	1	1	1	1	1
3	1.1566	1.2248	1.3421	1.644	1.5216
4	1.9352	1.2032	1.3972	1.7808	1.0581
5	4.4066	1.5249	1.641	2.8698	2.4512
6	6.6551	1.8264	2.4646	2.3747	1.7969
7	10.7526	3.2974	3.5206	2.954	1.4463
8	10.5036	5.4171	3.9102	2.7677	1.3073
9	10.7585	7.5246	4.5144	2.8197	1.2417
10	10.0659	9.0826	4.5102	2.8978	1.2607
11	10.197	10.4166	5.6945	3.02	1.3561
12	10.6334	11.3896	5.23	3.2142	1.9843
13	10.7138	18.2464	5.8282	3.0664	1.5823

4	0.0135	0.0144	0.027	0.0122	0.0265
5	0.0226	0.0119	0.0342	0.0263	0.0121
6	0.0442	0.0115	0.0399	0.0411	0.0069
7	0.0539	0.0154	0.0553	0.0461	0.0091
8	0.0549	0.0183	0.0544	0.048	0.0134
9	0.0544	0.0211	0.0546	0.0472	0.0122
10	0.0474	0.0264	0.0502	0.0508	0.0295
11	0.0483	0.026	0.0464	0.0479	0.0258
12	0.0512	0.033	0.042	0.0508	0.0272
13	0.0522	0.0297	0.0447	0.0498	0.0301
14	0.0515	0.0262	0.0417	0.0515	0.0285

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	36.0661	20.0851	42.2502	0.0371	119.4598
2	0	0	0	0	0
3	0.0797	25.5076	41.2977	58.8	86.9043
4	16.4874	52.3985	48.3965	94.5993	173.8085
5	27.6027	43.2049	61.1653	204.1654	79.2109
6	53.9217	41.9109	71.5009	318.8754	45.5664
7	65.7529	55.948	98.9731	357.6874	60.0339
8	66.9991	66.5928	97.2915	372.4088	88.2478
9	66.4264	76.5013	97.7677	366.3462	80.4695
10	57.9045	95.9608	89.8132	394.6992	194.1451
11	59.0076	94.5775	83.1386	371.784	169.6365
12	62.4811	119.817	75.1842	394.7847	178.5886
13	63.7273	107.8782	79.9762	387.0075	197.8504
14	62.8894	95.0243	74.5814	399.7204	187.5407

RD period prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0352	0.0156	0.0321	0.0098	0.0307
2	0.0222	0.0153	0.0235	0.0115	0.0272
3	0.0224	0.0169	0.0343	0.015	0.0327
4	0.0275	0.0223	0.0374	0.0183	0.0415
5	0.0326	0.022	0.0429	0.0308	0.0338
6	0.05	0.0228	0.0478	0.0447	0.033
7	0.0587	0.0254	0.0613	0.0497	0.0349
8	0.0596	0.0268	0.0608	0.0515	0.0366
9	0.0593	0.0293	0.0612	0.0508	0.0353
10	0.0527	0.0339	0.0572	0.0541	0.0437
11	0.0529	0.0339	0.054	0.0514	0.0412
12	0.0555	0.0399	0.0504	0.0543	0.0424
13	0.0564	0.0372	0.0529	0.0533	0.0449
14	0.0558	0.0346	0.0503	0.0549	0.0439

RD period prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	2.5113	1.0374	1.8672	0.715	1.2671
2	1	1	1	1	1
3	1.0143	1.2267	2.1285	1.6834	1.4408
4	1.5309	2.1251	2.54	2.5027	2.3233
5	2.1455	2.0612	3.3296	7.0961	1.539
6	5.0479	2.2195	4.149	14.9849	1.4652
7	6.9815	2.7548	6.8047	18.5135	1.6431
8	7.1843	3.0775	6.714	19.8667	1.8046
9	7.12	3.6732	6.7976	19.3409	1.6817
10	5.6281	4.9181	5.9387	21.9777	2.5751
11	5.6682	4.9217	5.2958	19.8272	2.2895
12	6.2254	6.8051	4.6095	22.0765	2.4245
13	6.4407	5.9181	5.0694	21.3216	2.7175

4	0.0392	0.0192	0.0244	0.0229	0.0319
5	0.0427	0.0115	0.0273	0.0476	0.053
6	0.0461	0.0118	0.0319	0.0725	0.0645
7	0.048	0.0182	0.0454	0.0828	0.0771
8	0.0449	0.018	0.0407	0.0833	0.0972
9	0.0439	0.0238	0.0454	0.0922	0.0978
10	0.0415	0.0243	0.0402	0.1013	0.1045
11	0.0385	0.032	0.0383	0.0998	0.0963
12	0.0414	0.036	0.033	0.0973	0.0948
13	0.0422	0.0384	0.04	0.0982	0.0895
14	0.0449	0.0405	0.042	0.0952	0.0874

RD period prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	19.1355	42.5282	4.3174	17.2164	29.4926
2	0	0	0	0	0
3	22.0461	37.0652	85.313	53.4748	7.6596
4	35.5245	41.7504	60.2661	52.9108	83.6661
5	38.689	25.0919	67.5111	109.8549	139.1817
6	41.8535	25.7349	78.7679	167.4224	169.0998
7	43.5193	39.5701	112.0355	191.2731	202.3241
8	40.6923	39.1475	100.4731	192.3788	255.0573
9</td					

14	10.7138	19.0423	5.9151	3.1191	1.7904
RD daily prevalence					

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0013	0.0031	0.0355	-0.0168	0.038
2	0.0183	0.0028	0.0209	-0.0162	0.0437
3	0.0175	0.0069	0.0208	-0.0125	0.0328
4	0.0252	0.0014	0.0152	-0.0093	0.0341
5	0.0326	-0.0066	0.0133	-0.008	0.0293
6	0.0377	-0.0081	0.0134	-0.0092	0.0259
7	0.0397	-0.0055	0.0161	-0.0103	0.0198
8	0.0409	-0.0039	0.0168	-0.0101	0.0174
9	0.0414	-0.001	0.0169	-0.0099	0.017
10	0.0395	0.0013	0.016	-0.009	0.0175
11	0.0379	0.0043	0.015	-0.0083	0.0167
12	0.0369	0.0052	0.0144	-0.0076	0.0142
13	0.0356	0.007	0.0137	-0.0073	0.0131
14	0.0344	0.0084	0.0131	-0.0072	0.0116

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0226	0.0176	0.0176	0.009	0.0321
2	0.0217	0.0172	0.0172	0.0084	0.0328
3	0.0201	0.0166	0.0159	0.0082	0.0324
4	0.0184	0.0153	0.0151	0.0077	0.0314
5	0.0167	0.0143	0.0144	0.0072	0.0289
6	0.0154	0.014	0.0135	0.007	0.0266
7	0.0145	0.0137	0.0129	0.0069	0.0251
8	0.0138	0.0131	0.0119	0.0062	0.0238
9	0.0133	0.0123	0.0111	0.0057	0.0222
10	0.0129	0.0117	0.0105	0.0052	0.0208
11	0.0122	0.0111	0.0099	0.0048	0.0193
12	0.0116	0.0107	0.0095	0.0045	0.0179
13	0.011	0.0101	0.0092	0.0042	0.0169
14	0.0105	0.0098	0.009	0.004	0.0162

RD daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0169	0.0003	0.0146	-0.0006	-0.0057
2	0	0	0	0	0
3	-0.0008	0.0042	-0.0001	0.0037	-0.0108
4	0.0069	-0.0013	-0.0057	0.0069	-0.0096
5	0.0143	-0.0093	-0.0076	0.0082	-0.0143
6	0.0194	-0.0108	-0.0075	0.007	-0.0178
7	0.0215	-0.0083	-0.0047	0.0059	-0.0239
8	0.0227	-0.0067	-0.0041	0.0061	-0.0263
9	0.0231	-0.0038	-0.004	0.0063	-0.0267
10	0.0212	-0.0015	-0.0049	0.0072	-0.0262
11	0.0196	0.0015	-0.0059	0.0079	-0.0269
12	0.0187	0.0024	-0.0065	0.0086	-0.0295
13	0.0173	0.0042	-0.0072	0.0089	-0.0306
14	0.0161	0.0056	-0.0078	0.009	-0.032

RD daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	92.7607	11.1558	70.0637	3.4433	12.9538
2	0	0	0	0	0
3	4.3825	151.3065	0.6369	22.7072	24.7977
4	37.901	48.593	27.1231	42.7884	21.9629
5	78.3396	338.2714	36.2208	50.5833	32.8077
6	106.4828	392.8057	35.7396	43.119	40.6713
7	117.562	299.1673	22.7176	36.6044	54.634

14	6.2939	5.1108	4.5952	22.6244	2.5956
RD daily prevalence					

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0524	0.022	0.0323	0.0129	-0.003
2	0.0693	0.0253	0.038	0.0144	0.011
3	0.0697	0.0297	0.0469	0.0144	0.0199
4	0.0713	0.0295	0.0464	0.015	0.0272
5	0.0687	0.0274	0.0439	0.0186	0.0292
6	0.0651	0.024	0.0434	0.0214	0.0268
7	0.0638	0.0223	0.042	0.023	0.0239
8	0.0601	0.0209	0.0401	0.0219	0.0214
9	0.0565	0.0209	0.0373	0.0199	0.0199
10	0.0511	0.0207	0.0341	0.019	0.0189
11	0.0473	0.0196	0.0314	0.0177	0.0181
12	0.0449	0.0197	0.0283	0.017	0.0172
13	0.0432	0.0189	0.0262	0.0161	0.0158
14	0.0411	0.0179	0.0239	0.0156	0.014

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0192	0.0146	0.0217	0.0098	0.0247
2	0.0198	0.0136	0.02	0.0089	0.0243
3	0.0186	0.0127	0.0187	0.0083	0.0242
4	0.0172	0.0121	0.0169	0.0074	0.024
5	0.0158	0.012	0.0153	0.007	0.0238
6	0.0145	0.0115	0.0139	0.007	0.0223
7	0.0131	0.0112	0.013	0.0071	0.021
8	0.012	0.0107	0.0119	0.0064	0.0199
9	0.0112	0.01	0.011	0.0058	0.019
10	0.0103	0.0095	0.0102	0.0053	0.0177
11	0.0095	0.009	0.0094	0.0049	0.0166
12	0.009	0.0087	0.0086	0.0046	0.0157
13	0.0084	0.0084	0.0081	0.0043	0.0149
14	0.0081	0.0081	0.0076	0.0041	0.0143

RD daily prevalence BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	-0.0169	-0.0033	-0.0058	-0.0015	-0.0139
2	0	0	0	0	0
3	0.0005	0.0044	0.0088	0	0.0089
4	0.002	0.0042	0.0084	0.0006	0.0162
5	-0.0005	0.0021	0.0059	0.0042	0.0182
6	-0.0042	-0.0013	0.0054	0.007	0.0159
7	-0.0054	-0.003	0.004	0.0086	0.0129
8	-0.0092	-0.0044	0.0021	0.0075	0.0104
9	-0.0128	-0.0044	-0.0008	0.0055	0.0089
10	-0.0181	-0.0046	-0.0039	0.0046	0.008
11	-0.022	-0.0057	-0.0066	0.0033	0.0071
12	-0.0243	-0.0056	-0.0098	0.0026	0.0062
13	-0.0261	-0.0064	-0.0119	0.0017	0.0048
14	-0.0282	-0.0074	-0.0141	0.0012	0.003

RD daily prevalence % BIAS

	India HP	India MP	Indonesia	Peru	Senegal
1	24.3947	12.9451	15.1664	10.5955	126.9883
2	0	0	0	0	0
3	0.6564	17.5152	23.2515	0.1934	81.4194
4	2.8878	16.7494	22.1156	4.3072	148.0288
5	0.7852	8.3893	15.4703	28.945	165.8704
6	6.0893	5.1172	14.1608	48.4041	144.5491
7	7.8237	11.7364	10.424	59.6983	117.6018

14	4.2268	8.6176	4.5237	33.2785	9.8576
RD daily prevalence					

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0892	0.0264	0.0422	0.0508	0.0269
2	0.0984	0.0335	0.0342	0.0454	0.0382
3	0.1004	0.0377	0.0422	0.0434	0.0418
4	0.0993	0.038	0.0371	0.0384	0.0444
5	0.0942	0.034	0.0334	0.0399	0.0521
6	0.0848	0.0306	0.0331	0.0416	0.0508
7	0.0761	0.0286	0.0311	0.0423	0.0524
8	0.0673	0.027	0.0276	0.0385	0.0538
9	0.0612	0.0262	0.0253	0.0353	0.0544
10	0.0547	0.0252	0.0232	0.0337	0.0555
11	0.0493	0.0245	0.0206	0.0315	0.0547
12	0.045	0.0248	0.0174	0.0292	0.0525
13	0.0415	0.0246	0.0159	0.0269	0.0495
14	0.0387	0.0245	0.0145	0.0248	0.0464

RD daily prevalence SE

	India HP	India MP	Indonesia	Peru	Senegal

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8	124.3345	242.2173	19.8248	37.8063	60.1625
9	126.6909	136.8509	19.0847	38.7313	61.0729
10	116.2386	53.5176	23.5456	44.1871	59.971
11	107.4465	55.3815	28.2571	48.9579	61.6922
12	102.1929	88.1826	30.9271	53.1261	67.5465
13	94.9042	153.7379	34.3132	55.1025	70.1206
14	88.4174	202.771	37.3825	55.3568	73.342

RD daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0283	0.0176	0.0229	0.009	0.0326
2	0.0217	0.0172	0.0172	0.0084	0.0328
3	0.0202	0.0171	0.0159	0.009	0.0342
4	0.0197	0.0154	0.0161	0.0104	0.0328
5	0.022	0.0171	0.0162	0.0109	0.0322
6	0.0248	0.0177	0.0154	0.0099	0.032
7	0.0259	0.016	0.0137	0.0091	0.0346
8	0.0266	0.0147	0.0126	0.0087	0.0355
9	0.0267	0.0128	0.0118	0.0084	0.0347
10	0.0248	0.0118	0.0116	0.0089	0.0335
11	0.0231	0.0112	0.0115	0.0093	0.0332
12	0.022	0.011	0.0115	0.0097	0.0345
13	0.0205	0.011	0.0117	0.0099	0.035
14	0.0192	0.0113	0.0119	0.0098	0.0359

RD daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.694	1.0455	1.7627	1.1528	0.9868
2	1	1	1	1	1
3	0.8607	0.9822	0.8494	1.1491	1.0892
4	0.8192	0.798	0.8746	1.5264	1.0023
5	1.0252	0.9851	0.8861	1.6955	0.9676
6	1.301	1.0539	0.7974	1.3932	0.9506
7	1.4194	0.8628	0.632	1.1748	1.1152
8	1.4978	0.7272	0.5321	1.0853	1.1705
9	1.5106	0.5543	0.4698	1.0159	1.1195
10	1.3051	0.4668	0.4531	1.1185	1.0433
11	1.1295	0.4236	0.448	1.2284	1.0243
12	1.0216	0.404	0.4439	1.3438	1.109
13	0.8915	0.4071	0.4576	1.3893	1.1387
14	0.7848	0.4282	0.4781	1.373	1.1994

RD daily prevalence relative MSE (day 2 ref)

8	13.2384	17.5243	5.434	52.1443	95.0402
9	18.4379	17.491	2.0264	38.3334	81.4782
10	26.1595	18.1839	10.2541	31.93	72.6606
11	31.7697	22.3509	17.4013	22.7803	64.5457
12	35.1117	22.1486	25.6854	17.9211	56.5918
13	37.6979	25.1544	31.1783	11.846	43.7738
14	40.7155	29.2381	37.0685	8.2752	27.4745

RD daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0256	0.0149	0.0225	0.0099	0.0284
2	0.0198	0.0136	0.02	0.0089	0.0243
3	0.0186	0.0134	0.0207	0.0083	0.0258
4	0.0173	0.0128	0.0189	0.0075	0.029
5	0.0158	0.0122	0.0164	0.0081	0.03
6	0.0151	0.0116	0.0149	0.0099	0.0274
7	0.0142	0.0116	0.0136	0.0111	0.0247
8	0.0151	0.0116	0.012	0.0099	0.0225
9	0.017	0.0109	0.0111	0.008	0.021
10	0.0209	0.0105	0.0109	0.007	0.0194
11	0.024	0.0107	0.0115	0.0059	0.018
12	0.0259	0.0103	0.013	0.0053	0.0169
13	0.0274	0.0105	0.0143	0.0046	0.0157
14	0.0293	0.011	0.016	0.0043	0.0147

RD daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.6635	1.2061	1.2675	1.2292	1.3574
2	1	1	1	1	1
3	0.8768	0.9761	1.07	0.8691	1.1261
4	0.7585	0.8874	0.8934	0.6985	1.4163
5	0.6373	0.7993	0.6702	0.8338	1.5194
6	0.5809	0.7294	0.5584	1.2292	1.2683
7	0.5139	0.7267	0.4605	1.5571	1.0277
8	0.5826	0.7239	0.3633	1.2327	0.8545
9	0.7346	0.6432	0.3062	0.8122	0.7436
10	1.1063	0.6013	0.2968	0.6252	0.6389
11	1.4627	0.615	0.3289	0.4428	0.5486
12	1.7086	0.5775	0.4249	0.3507	0.4801
13	1.9154	0.5963	0.5151	0.2714	0.4161
14	2.1898	0.653	0.644	0.2318	0.3626

RD daily prevalence relative MSE (day 2 ref)

8	31.6239	19.4958	19.408	15.0851	40.754
9	37.7913	21.8704	26.2162	22.3218	42.3209
10	44.4212	24.8438	32.0715	25.6816	45.1085
11	49.8881	26.8396	39.6791	30.6208	43.0301
12	54.2731	26.1426	49.1229	35.6197	37.4381
13	57.8402	26.73	53.6196	40.8068	29.397
14	60.7114	27.053	57.7659	45.3474	21.4461

RD daily prevalence root MSE

	India HP	India MP	Indonesia	Peru	Senegal
1	0.0272	0.0141	0.0236	0.016	0.0318
2	0.0237	0.0121	0.021	0.014	0.0279
3	0.0213	0.0123	0.0207	0.0131	0.0257
4	0.0189	0.0119	0.0182	0.0138	0.0243
5	0.0181	0.0103	0.017	0.0126	0.0274
6	0.0211	0.0101	0.016	0.0118	0.0255
7	0.027	0.0107	0.0153	0.0108	0.0257
8	0.0341	0.0112	0.015	0.0115	0.0256
9	0.0395	0.0112	0.0154	0.0131	0.0252
10	0.0454	0.0114	0.0162	0.0139	0.0253
11	0.0505	0.0115	0.0175	0.0156	0.0244
12	0.0545	0.0111	0.0198	0.0174	0.0226
13	0.0579	0.0111	0.0208	0.0195	0.0204
14	0.0606	0.0111	0.0219	0.0214	0.0184

RD daily prevalence relative MSE (day 2 ref)

	India HP	India MP	Indonesia	Peru	Senegal
1	1.3125	1.3565	1.2736	1.3041	1.2956
2	1	1	1	1	1
3	0.8055	1.0366	0.9742	0.878	0.8501
4	0.6344	0.9597	0.7553	0.9781	0.7615
5	0.58	0.7271	0.6555	0.8176	0.9659
6	0.7916	0.6971	0.5864	0.7077	0.8355
7	1.2928	0.7752	0.5331	0.5987	0.8511
8	2.0686	0.8554	0.5118	0.6733	0.8402
9	2.7631	0.8527	0.5404	0.8746	0.8183
10	3.6631	0.8841	0.5942	0.991	0.8213
11	4.5208	0.9068	0.6989	1.24	0.7622
12	5.282	0.8426	0.8894	1.5559	0.6533
13	5.9493	0.846	0.9865	1.9458	0.5341
14	6.5195	0.8409	1.0901	2.3382	0.4349

Sheet 4. Cough, Sample Size

Sample Size Required (RR=0.8), period prevalence (File created by recall-empirical-p)

	India HP	India MP	Indonesia	Peru	Senegal
d1	2033	4154	1641	1185	2976
d2	1758	3285	1458	1077	2535
d3	1463	2772	1350	970	2311
d4	1333	2594	1251	879	2150
d5	1251	2303	1128	812	1966
d6	1180	2174	1082	780	1862
d7	1126	2043	988	718	1723
d8	1098	1985	956	694	1650
d9	1073	1937	941	686	1625
d10	1047	1892	918	677	1582
d11	1022	1829	912	670	1558
d12	1003	1753	902	662	1540
d13	991	1725	898	660	1540
d14	991	1725	898	659	1540

Relative Sample Size, period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
d1	1.8057	2.0338	1.6615	1.6501	1.7274
d2	1.561	1.6082	1.4759	1.5005	1.4714
d3	1.2988	1.3572	1.3665	1.3512	1.3409
d4	1.1838	1.2702	1.2663	1.2247	1.2477
d5	1.1109	1.1276	1.1421	1.131	1.1411
d6	1.0476	1.0644	1.095	1.086	1.0808
d7	1	1	1	1	1
d8	0.975	0.972	0.9681	0.9665	0.9575
d9	0.9533	0.9485	0.9528	0.9557	0.943
d10	0.93	0.9261	0.9293	0.9429	0.9179
d11	0.9077	0.8955	0.9231	0.9335	0.9044
d12	0.8903	0.8582	0.9128	0.9221	0.8938
d13	0.8798	0.8446	0.9088	0.919	0.8938
d14	0.8798	0.8446	0.9088	0.918	0.8938

Percentage Change in Sample Size (%), period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
d1	80.57	103.38	66.15	65.01	72.74
d2	56.1	60.82	47.59	50.05	47.14
d3	29.88	35.72	36.65	35.12	34.09
d4	18.38	27.02	26.63	22.47	24.77
d5	11.09	12.76	14.21	13.1	14.11
d6	4.76	6.44	9.5	8.6	8.08
d7	0	0	0	0	0
d8	-2.5	-2.8	-3.19	-3.35	-4.25
d9	-4.67	-5.15	-4.72	-4.43	-5.7
d10	-7	-7.39	-7.07	-5.71	-8.21
d11	-9.23	-10.45	-7.69	-6.65	-9.56
d12	-10.97	-14.18	-8.72	-7.79	-10.62
d13	-12.02	-15.54	-9.12	-8.1	-10.62
d14	-12.02	-15.54	-9.12	-8.2	-10.62

Sample Size Required (RR=0.8), daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	2033	4154	1641	1185	2976

2	1877	3528	1541	1139	2676
3	1696	3149	1503	1097	2535
4	1589	3029	1479	1056	2449
5	1543	2892	1438	1024	2359
6	1527	2828	1428	1013	2289
7	1511	2765	1399	992	2226
8	1501	2743	1352	960	2192
9	1509	2726	1350	953	2200
10	1515	2731	1368	963	2218
11	1512	2722	1393	985	2244
12	1531	2701	1436	1019	2293
13	1562	2713	1495	1063	2367
14	1622	2773	1568	1114	2464

Relative Sample Size, daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.3453	1.5023	1.1729	1.1943	1.3371
2	1.2421	1.2758	1.1012	1.1486	1.2021
3	1.1224	1.1387	1.074	1.1061	1.1388
4	1.0513	1.0956	1.0569	1.0645	1.1002
5	1.0212	1.0458	1.0273	1.0324	1.0596
6	1.01	1.0229	1.0202	1.0209	1.0282
7	1	1	1	1	1
8	0.9934	0.9919	0.9659	0.9681	0.9846
9	0.9983	0.9858	0.9644	0.9606	0.9885
10	1.0025	0.9876	0.9778	0.9705	0.9966
11	1.0007	0.9843	0.9957	0.9935	1.008
12	1.0131	0.9768	1.0259	1.0269	1.0302
13	1.0338	0.981	1.0686	1.0714	1.0632
14	1.0731	1.0029	1.1208	1.1236	1.1069

Percentage Change in Sample Size (%), daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	34.53	50.23	17.29	19.43	33.71
2	24.21	27.58	10.12	14.86	20.21
3	12.24	13.87	7.4	10.61	13.88
4	5.13	9.56	5.69	6.45	10.02
5	2.12	4.58	2.73	3.24	5.96
6	1	2.29	2.02	2.09	2.82
7	0	0	0	0	0
8	-0.66	-0.81	-3.41	-3.19	-1.54
9	-0.17	-1.42	-3.56	-3.94	-1.15
10	0.25	-1.24	-2.22	-2.95	-0.34
11	0.07	-1.57	-0.43	-0.65	0.8
12	1.31	-2.32	2.59	2.69	3.02
13	3.38	-1.9	6.86	7.14	6.32
14	7.31	0.29	12.08	12.36	10.69

Relative Sample Size Daily Point vs. Period Prev

	India HP	India MP	Indonesia	Peru	Senegal
1	1	1	1	1	1
2	1.07	1.07	1.06	1.06	1.06
3	1.16	1.14	1.11	1.13	1.1
4	1.19	1.17	1.18	1.2	1.14
5	1.23	1.26	1.27	1.26	1.2
6	1.29	1.3	1.32	1.3	1.23

7	1.34	1.35	1.42	1.38	1.29
8	1.37	1.38	1.41	1.38	1.33
9	1.41	1.41	1.43	1.39	1.35
10	1.45	1.44	1.49	1.42	1.4
11	1.48	1.49	1.53	1.47	1.44
12	1.53	1.54	1.59	1.54	1.49
13	1.58	1.57	1.67	1.61	1.54
14	1.64	1.61	1.75	1.69	1.6

Sheet 5. Diarrhea, Sample Size

Sample Size Required (RR=0.8), period prevalence (File created by recall-empiri)

	India HP	India MP	Indonesia	Peru	Senegal
d1	13660	5074	8399	3933	4145
d2	10065	3683	7091	3092	3236
d3	8133	3201	5705	2491	2854
d4	7332	2823	5338	2147	2601
d5	6538	2487	4936	1931	2404
d6	5789	2321	4588	1753	2258
d7	5316	2134	4014	1607	2126
d8	5272	1999	3867	1565	2080
d9	5026	1937	3775	1541	2029
d10	4873	1898	3644	1515	2001
d11	4873	1841	3561	1502	1973
d12	4873	1764	3501	1470	1939
d13	4764	1725	3481	1453	1920
d14	4764	1725	3442	1439	1907

Relative Sample Size, period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
d1	2.5697	2.3778	2.0922	2.4476	1.9495
d2	1.8934	1.726	1.7664	1.9239	1.5218
d3	1.53	1.5003	1.4213	1.5504	1.3422
d4	1.3794	1.323	1.3296	1.3363	1.223
d5	1.23	1.1654	1.2297	1.2018	1.1305
d6	1.0891	1.0878	1.143	1.091	1.0617
d7	1	1	1	1	1
d8	0.9918	0.9369	0.9634	0.9741	0.9784
d9	0.9454	0.9079	0.9404	0.9591	0.9543
d10	0.9167	0.8894	0.9076	0.9429	0.9409
d11	0.9167	0.8628	0.887	0.935	0.9279
d12	0.9167	0.8268	0.872	0.9149	0.9121
d13	0.8962	0.8084	0.8671	0.9043	0.9028
d14	0.8962	0.8084	0.8575	0.8954	0.8967

Percentage Change in Sample Size (%), period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
d1	156.97	137.78	109.22	144.76	94.95
d2	89.34	72.6	76.64	92.39	52.18
d3	53	50.03	42.13	55.04	34.22
d4	37.94	32.3	32.96	33.63	22.3
d5	23	16.54	22.97	20.18	13.05
d6	8.91	8.78	14.3	9.1	6.17
d7	0	0	0	0	0
d8	-0.82	-6.31	-3.66	-2.59	-2.16
d9	-5.46	-9.21	-5.96	-4.09	-4.57
d10	-8.33	-11.06	-9.24	-5.71	-5.91
d11	-8.33	-13.72	-11.3	-6.5	-7.21
d12	-8.33	-17.32	-12.8	-8.51	-8.79
d13	-10.38	-19.16	-13.29	-9.57	-9.72
d14	-10.38	-19.16	-14.25	-10.46	-10.33

Sample Size Required (RR=0.8), daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
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1	13660	5074	8399	3933	4145
2	10968	4026	7757	3388	3492
3	9313	3624	6906	2962	3221
4	8645	3386	6794	2665	3098
5	8187	3153	6714	2468	3016
6	7704	3009	6578	2333	2955
7	7284	2873	6176	2229	2912
8	7249	2753	5831	2166	2923
9	7254	2655	5685	2155	2948
10	7339	2608	5616	2185	3010
11	7587	2551	5471	2259	3069
12	8047	2507	5470	2345	3145
13	8309	2507	5564	2438	3233
14	8730	2551	5710	2531	3342

Relative Sample Size, daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	1.8752	1.7664	1.36	1.7642	1.4234
2	1.5057	1.4017	1.256	1.5199	1.1991
3	1.2785	1.2617	1.1182	1.3284	1.1061
4	1.1868	1.1789	1.1002	1.1955	1.0637
5	1.124	1.0976	1.0872	1.1072	1.0356
6	1.0576	1.0473	1.0652	1.0465	1.0149
7	1	1	1	1	1
8	0.9952	0.9584	0.9441	0.9715	1.0038
9	0.9958	0.9243	0.9206	0.9664	1.0125
10	1.0075	0.908	0.9093	0.9802	1.0336
11	1.0415	0.8882	0.8859	1.0133	1.054
12	1.1047	0.8729	0.8857	1.0517	1.0798
13	1.1406	0.8728	0.9009	1.0934	1.1103
14	1.1985	0.888	0.9245	1.1355	1.1476

Percentage Change in Sample Size (%), daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	87.52	76.64	36	76.42	42.34
2	50.57	40.17	25.6	51.99	19.91
3	27.85	26.17	11.82	32.84	10.61
4	18.68	17.89	10.02	19.55	6.37
5	12.4	9.76	8.72	10.72	3.56
6	5.76	4.73	6.52	4.65	1.49
7	0	0	0	0	0
8	-0.48	-4.16	-5.59	-2.85	0.38
9	-0.42	-7.57	-7.94	-3.36	1.25
10	0.75	-9.2	-9.07	-1.98	3.36
11	4.15	-11.18	-11.41	1.33	5.4
12	10.47	-12.71	-11.43	5.17	7.98
13	14.06	-12.72	-9.91	9.34	11.03
14	19.85	-11.2	-7.55	13.55	14.76

Relative Sample Size Daily Point vs. Period Prev

	India HP	India MP	Indonesia	Peru	Senegal
1	1	1	1	1	1
2	1.09	1.09	1.09	1.1	1.08
3	1.15	1.13	1.21	1.19	1.13
4	1.18	1.2	1.27	1.24	1.19
5	1.25	1.27	1.36	1.28	1.25

6	1.33	1.3	1.43	1.33	1.31
7	1.37	1.35	1.54	1.39	1.37
8	1.37	1.38	1.51	1.38	1.41
9	1.44	1.37	1.51	1.4	1.45
10	1.51	1.37	1.54	1.44	1.5
11	1.56	1.39	1.54	1.5	1.56
12	1.65	1.42	1.56	1.59	1.62
13	1.74	1.45	1.6	1.68	1.68
14	1.83	1.48	1.66	1.76	1.75

Sheet 6. Fever, Sample Size

Sample Size Required (RR=0.8), period prevalence (File created by recall-empiric

	India HP	India MP	Indonesia	Peru	Senegal
d1	2445	3882	2425	5450	1640
d2	1857	2628	1762	3626	1189
d3	1476	2065	1471	2637	963
d4	1248	1854	1258	2180	794
d5	1087	1577	1053	1760	699
d6	958	1437	931	1439	621
d7	892	1299	804	1186	568
d8	873	1236	777	1123	524
d9	838	1163	755	1092	506
d10	813	1129	729	1064	481
d11	786	1069	713	1042	468
d12	759	1003	689	1004	449
d13	742	965	676	982	433
d14	741	957	669	969	430

Relative Sample Size, period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
d1	2.7395	2.9889	3.0179	4.5944	2.8889
d2	2.0811	2.0235	2.1929	3.0563	2.0956
d3	1.6536	1.5896	1.8301	2.2231	1.6963
d4	1.3979	1.4271	1.5647	1.8379	1.3985
d5	1.2179	1.2143	1.3104	1.4834	1.232
d6	1.074	1.1064	1.1578	1.2129	1.0937
d7	1	1	1	1	1
d8	0.9777	0.9516	0.9669	0.9469	0.9228
d9	0.9395	0.8956	0.9393	0.9207	0.8909
d10	0.9112	0.8695	0.9071	0.8968	0.847
d11	0.8803	0.8227	0.8872	0.8786	0.8239
d12	0.851	0.7725	0.8574	0.8462	0.7907
d13	0.8315	0.7433	0.8406	0.8274	0.7629
d14	0.8298	0.7367	0.8324	0.8166	0.7577

Percentage Change in Sample Size (%), period prevalence

	India HP	India MP	Indonesia	Peru	Senegal
d1	173.95	198.89	201.79	359.44	188.89
d2	108.11	102.35	119.29	205.63	109.56
d3	65.36	58.96	83.01	122.31	69.63
d4	39.79	42.71	56.47	83.79	39.85
d5	21.79	21.43	31.04	48.34	23.2
d6	7.4	10.64	15.78	21.29	9.37
d7	0	0	0	0	0
d8	-2.23	-4.84	-3.31	-5.31	-7.72
d9	-6.05	-10.44	-6.07	-7.93	-10.91
d10	-8.88	-13.05	-9.29	-10.32	-15.3
d11	-11.97	-17.73	-11.28	-12.14	-17.61
d12	-14.9	-22.75	-14.26	-15.38	-20.93
d13	-16.85	-25.67	-15.94	-17.26	-23.71
d14	-17.02	-26.33	-16.76	-18.34	-24.23

Sample Size Required (RR=0.8), daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
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1	2445	3882	2425	5450	1640
2	2024	2927	1955	4096	1309
3	1733	2447	1737	3240	1136
4	1525	2237	1573	2774	1003
5	1388	2037	1408	2375	917
6	1276	1901	1296	2037	849
7	1210	1791	1184	1749	805
8	1186	1734	1128	1589	762
9	1185	1677	1110	1537	743
10	1193	1656	1114	1540	737
11	1198	1630	1128	1555	739
12	1213	1587	1142	1384	745
13	1227	1540	1177	1459	752
14	1271	1525	1234	1547	775

Relative Sample Size, daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	2.0198	2.168	2.0485	3.1168	2.0376
2	1.6721	1.6345	1.6511	2.3426	1.6271
3	1.4321	1.3665	1.4674	1.8528	1.4121
4	1.2597	1.2494	1.3286	1.5863	1.2468
5	1.1465	1.1375	1.1894	1.3582	1.1389
6	1.054	1.0614	1.0944	1.1648	1.0553
7	1	1	1	1	1
8	0.9803	0.9684	0.9531	0.9087	0.9463
9	0.9791	0.9365	0.9371	0.8791	0.9229
10	0.9854	0.925	0.9408	0.8806	0.9155
11	0.9896	0.9101	0.9528	0.889	0.9186
12	1.002	0.8862	0.9647	0.7915	0.9252
13	1.014	0.8601	0.994	0.8346	0.9345
14	1.05	0.8513	1.042	0.8846	0.9624

Percentage Change in Sample Size (%), daily prevalence

	India HP	India MP	Indonesia	Peru	Senegal
1	101.98	116.8	104.85	211.68	103.76
2	67.21	63.45	65.11	134.26	62.71
3	43.21	36.65	46.74	85.28	41.21
4	25.97	24.94	32.86	58.63	24.68
5	14.65	13.75	18.94	35.82	13.89
6	5.4	6.14	9.44	16.48	5.53
7	0	0	0	0	0
8	-1.97	-3.16	-4.69	-9.13	-5.37
9	-2.09	-6.35	-6.29	-12.09	-7.71
10	-1.46	-7.5	-5.92	-11.94	-8.45
11	-1.04	-8.99	-4.72	-11.1	-8.14
12	0.2	-11.38	-3.53	-20.85	-7.48
13	1.4	-13.99	-0.6	-16.54	-6.55
14	5	-14.87	4.2	-11.54	-3.76

Relative Sample Size Daily Point vs. Period Prev

	India HP	India MP	Indonesia	Peru	Senegal
1	1	1	1	1	1
2	1.09	1.11	1.11	1.13	1.1
3	1.17	1.19	1.18	1.23	1.18
4	1.22	1.21	1.25	1.27	1.26
5	1.28	1.29	1.34	1.35	1.31

6	1.33	1.32	1.39	1.42	1.37
7	1.36	1.38	1.47	1.47	1.42
8	1.36	1.4	1.45	1.41	1.45
9	1.41	1.44	1.47	1.41	1.47
10	1.47	1.47	1.53	1.45	1.53
11	1.52	1.53	1.58	1.49	1.58
12	1.6	1.58	1.66	1.38	1.66
13	1.65	1.6	1.74	1.49	1.74
14	1.72	1.59	1.84	1.6	1.8