

DETAILED ANALYSIS OF INDEPENDENT MONITORING INDICATORS FOR THE STATE OF RAJASTHAN

Table 1: Sample Sizes During Independent Monitoring	Schools			No. of <i>anganwadi</i> visited
	No. of Schools Visited	No. of Headmasters/Teachers Interviewed	No. of children Interviewed	
Deworming Day	125	125	125 (1 child per school)	NA
Mop-Up Day	125	125	125 (1 child per school)	NA
Coverage Validation	375	375	1,125 (3 children per school)	375
Total	625	625	1,375	375

Table 2: Training related indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Responses from the headmasters/principals interviewed:			
Attended training for deworming program	63.2	61.6	62.4
For schools that didn't attend training, reasons were:			
Problem with the location of training	0.0	0.0	0.0
Problem with the timing of training	4.5	0.0	2.2
Weren't aware of the date of training	27.3	14.9	20.9
Problem due to monitory constraints	0.0	0.0	0.0
No information about training	47.7	51.0	49.4
Other reasons	20.5	34.1	27.5
Responses from the teachers interviewed:			
Training status of teachers who were conducting deworming:			
Teachers who were trained at block level training	36.8	27.2	32.0
Teachers trained by headmaster or other teachers	27.2	34.4	30.8
Teachers who did not receive training	33.6	35.2	34.4
Based on monitor's observation:			
Deworming activities were taken place in the class	94.4	79.2	86.8
Type of health education about deworming had given			
Harmful effects of worms	60.0	56.0	58.0
How worms get transmitted	44.8	36.8	40.8
Benefits of deworming	67.2	54.4	60.8
Methods of STH prevention	42.4	40.8	41.6
No health education given	17.6	7.2	12.4
Percentage of teachers who identified sick children before administering the tablet	75.2	69.6	72.4
Schools where the drug was being given by teachers/headmasters	93.6	77.6	85.6
Teachers who told the children to chew the tablets before swallowing it	88.8	76.8	82.8

Teachers who followed the correct recording protocol of ticking (single tick on Deworming Day and double tick on Mop-Up Day)	79.2	53.6	66.4
Schools where children were given less than one tablet	4.0	8.0	6.0
Schools where children were given more than one tablet	2.4	0.8	1.6

Table 3: Awareness related indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Poster visibility			
Schools in which the poster was clearly visible to all	24.0	23.2	23.6
Schools in which the poster was partially visible/hidden in a room	2.4	2.4	2.4
Schools in which the poster was not visible	9.6	4.8	7.2
Schools which did not receive the poster	64.8	66.4	65.6
Received SMS about deworming program	56.0	72.8	64.4
Schools where handouts about deworming program were available	34.4	43.2	38.8
Handouts was helpful for:			
Drug dosage and administration	27.2	32.8	30.0
Adverse event	22.4	30.4	26.4
Health information on STH and transmission	23.2	27.2	25.2
Prevention of worm infection	36.0	42.4	39.2
Schools where safe drinking water was available	87.2	73.6	80.4
Teachers aware that if child is unwell they should not give her/him the deworming tablet	96.8	90.4	93.6
Teachers aware that one deworming tablet was to be given	98.4	96.8	97.6
Responses from the children interviewed:			
Children who knew what the drug was for deworming	84.8	63.2	74.0
Children who knew about deworming, even though they did not know what the tablet was for	17.6	26.7	21.9
Children who had heard of deworming before Deworming Day/Mop-Up Day	49.6	43.2	46.4
Children who had heard of deworming on Deworming Day/Mop-Up Day	28.0	15.2	21.6
The following are the mediums through which children became aware of deworming-			
Teacher/School	78.4	61.6	70.0
Radio	1.6	0.8	1.2
TV	5.6	6.4	6.0
Newspaper	6.4	5.6	6.0
Posters	5.6	4.0	4.8
Prabhat pheri	2.4	1.6	2.0
Parents/siblings	3.2	1.6	2.4
Friends/relatives	7.2	3.2	5.2

Table 4: Reporting indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Schools where school reporting form was available	81.6	82.4	82.0
Respondents who were aware of the last date of submission of school reporting form	52.8	61.6	57.2
Respondents who were aware of whom to submit the school reporting form to	88.8	89.6	89.2
Respondents who were aware of one copy of school reporting form to be submitted	75.2	84.0	79.6
Respondents who were aware that a copy of school reporting form has to remain in the school	92.8	96.0	94.4

Table 5: Drug availability and storage indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Respondents who got information about drug delivery at block level headmaster's training	75.2	71.2	73.2
Schools received deworming tablets	98.4	97.6	98.0
According to the drug packets, the expiration date was			
Before Deworming Day/Mop-Up Day	0.8	1.6	1.2
After Deworming Day/Mop-Up Day	95.2	91.2	93.2
Schools where the monitor observed spoiled tablets was			
Thrown away	84.0	71.4	78.3
Given to children	0.0	0.0	0.0
Left on the floor	0.0	0.0	0.0
Kept in some other place	8.0	19.0	13.0
Schools received deworming drug at cluster level training	41.6	39.2	40.4
Schools where children got deworming tablet on Deworming Day/Mop-Up Day	98.4	82.4	90.4
Schools where storage was away from the reach of children	96.0	95.2	95.6
ORS packets were available in the schools	12.0	16.0	14.0
Responses from the children interviewed:			
Percentage of children got deworming tablet	98.4	72.8	85.6
Percentage of children who received drug from the teacher/headmaster	96.7	72.8	84.8
Percentage of children consume deworming tablet	98.4	72.8	85.6
Percentage of children who chewed tablet before swallowing	94.3	94.5	94.4

Table 6: Adverse events related indicators	Deworming Day	Mop-Up Day	Aggregate (DD & MUD)
Indicators	Percentage	Percentage	Percentage
Percentage of teachers aware that unwell children should not get the deworming tablet	96.8	90.4	93.6
Percentage of teachers who thought it was acceptable for sick children to be dewormed	2.4	2.4	2.4
Percentage of teachers who did not identify sick children before administering the tablet	24.8	9.6	17.2
Schools where the monitor observed types of adverse event:			
Stomach ache	2.4	0.0	1.2
Nausea	2.4	1.6	2.0
Vomiting	2.4	0.8	1.6
Diarrhea	0.0	0.0	0.0
Percentage of teachers who did not think there could be adverse effects due to deworming	41.6	40.8	41.2
Percentage of children who felt healthy before taking the tablet	84.8	58.4	71.6
Teachers who believed the following to be the adverse effects of deworming:			
Mild abdominal pain	65.3	70.4	67.8
Nausea/vomiting	87.5	91.5	89.5
Diarrhea	25.0	25.4	25.2
Fatigue	13.9	16.9	15.4
When asked about their response in case a student suffers from adverse effects, the teachers answered:			
Make the child lie down in shade	59.2	52.0	55.6
Take the child to the hospital immediately	66.4	70.4	68.4
When asked about their response in case a student continues to suffer from adverse effects, the teachers answered :			
Call PHC or emergency number	44.0	32.0	38.0
Take the child to the hospital immediately	79.2	80.8	80.0

Table 7: Coverage validation indicators

Indicators	Percentage
Responses from the headmasters/principals interviewed:	
Attended training for deworming program	64.8
For schools that didn't attend training, reasons were:	
Problem with the location of training	0.8
Problem with the timing of training	0.0
Weren't aware of the date of training	26.6
Problem due to monitory constraints	0.0
No information about training	47.7
Other reasons	24.9
Percentage of schools received the followings:	
Poster	37.6
Handouts	24.8
Received SMS about deworming program	73.3
Percentage of schools which had sufficient drugs for deworming	96.0
Percentage of schools had surplus storage of drugs after deworming	78.1
Percentage of schools where school reporting form was available after Deworming Day and Mop-Up Day	85.3
For schools that didn't have school reporting form, reasons were:	
Did not received	38.2
Submitted to block resource persons (BRP)	41.8
Unable to locate	1.8
Percentage of schools had complete school reporting form	84.0
Percentage of schools did deworming on Deworming Day or Mop-Up Day	97.6
Percentage of schools reported mild adverse event after taking the drug	8.3
Percentage of schools reported serious adverse event after taking the drug	0.0
The followings adverse event was happened after taking the drug	
Mild abdominal pain	51.6
Nausea/vomiting	74.2
Diarrhea	12.9
Fatigue	0.0
When asked about their response in case a student suffers from adverse effects, the headmaster answered:	
Make the child lie down in shade	51.6
Take the child to the hospital immediately	48.4
Percentage of schools received the adverse event reporting form	0.3
Percentage of schools where adverse event reporting form was available	0.0
Percentage of schools those who filled the adverse event reporting form	0.0

Table 8: Coverage validation indicators	
Indicators	
State level verification factor	0.86955
School following the recording protocol	84.8%
State inflation rate (which measures the extent to which the recording in school reporting forms exceeds records at schools)	15.0%
State level inflation rate among trained schools (which measures how much the coverage reported in reporting forms exceeded school records in registers for schools that received training)	13.9%
State level inflation rate among untrained schools (which measures how much coverage reported in reporting forms exceeded school records in registers for schools that were not trained)	17.2%
School level inflation rate for schools that followed the recording protocol (measures how much coverage reported in reporting forms exceeded school records in registers, for schools that were following recording protocols, i.e., ticking).	8.9%
Non-compliance of recording protocol	15.2%
Inaccuracy among compliant schools (schools following recording protocols where ticks in registers did not match what was reported in school reporting forms)	28.0%
Children who were present on Deworming Day or Mop-Up Day received deworming tablet, according to the responses from the children interviewed)	93.8%
Enrollment-attendance analysis:	
Percentage of children present on Deworming Day (based on two classes)	74.7%
Percentage of children present on Mop-Up day (based on two classes)	74.0%
Average attendance of children on Deworming Day and Mop-Up Day (based on DD, MUD & CV data)	72.3%

Table 9: District Level Verification Factor	
District Name	Verification factor
AJMER	0.832
ALWAR	1.470
BANSWARA	0.603
BARAN	1.276
BARMER	0.820
BHARATPUR	1.042
BHILWARA	0.879
BIKANER	0.863
BUNDI	0.578
CHITTORGARH	1.686
CHURU	0.810
DAUSA	1.564
DHOLPUR	1.458
DUNGARPUR	1.319
GANGANAGAR	1.422
HANUMANGARH	1.389
JAIPUR	0.458
JAISALMER	0.633
JALORE	0.663
JHALAWAR	0.987
JHUNJHUNUN	0.640
JODHPUR	1.155
KARALI	0.415
KOTA	1.166
NAGPUR	0.674
PALI	0.837
PRATAPGARH	0.734
RAJSAMAND	0.582
SAWAI MADHOPUR	0.824
SIKAR	0.668
SIROHI	0.673
TONK	1.219
UDAIPUR	0.725

	Indicators
I_1	Attended Training for Deworming Program
I_2	Received SMS about deworming program
I_3	Received poster about deworming program
I_4	Received handouts about deworming program
I_5	Had the sufficient drugs for deworming
I_6	Had school reporting form available
I_7	Had deworming on deworming or mop-up day

Table 10: District Wise Variation (DD, MUD & CV)

District	I_1	I_2	I_3	I_4	I_5	I_6	I_7	N
Ajmer	59.1	52.4	31.8	27.3	90.9	81.8	100.0	22
Bikaner	76.9	84.62	69.23	84.6	100	100	100	13
Udaipur	69.7	60.6	33.3	21.2	93.93	78.78	84.84	33
Sirohi	70.0	70.0	40.0	20.0	100.0	90.0	100.0	10
Alwar	76.0	84.0	20.0	40.0	96.0	88.0	100.0	25
Banswara	76.2	57.1	52.4	52.4	100.0	90.5	90.5	21
Baran	62.5	87.5	25.0	25.0	87.5	75.0	100.0	8
Barmer	39.5	81.4	20.9	16.3	76.7	81.4	95.3	43
Bharatpur	11.8	64.7	29.4	29.4	82.4	76.5	94.1	17
Bhilwara	59.3	77.8	66.7	29.6	100.0	81.5	92.6	27
Bundi	61.5	69.2	30.8	53.8	100.0	84.6	100.0	13
Chittaurgarh	84.6	53.8	53.8	46.2	100.0	69.2	92.3	13
Churu	66.7	60.0	33.3	60.0	86.7	80.0	100.0	15
Dausa	84.6	53.8	69.2	15.4	100.0	100.0	92.3	13
Dhaulpur	91.7	58.3	33.3	16.7	91.7	83.3	83.3	12
Dungarpur	63.6	63.6	36.4	31.8	90.9	90.9	95.5	22
Ganganagar	55.0	85.0	60.0	60.0	95.0	95.0	90.0	20
Hanumangarh	62.5	100.0	18.8	25.0	93.8	93.8	100.0	16
Jaipur	60.0	82.9	37.1	37.1	91.4	82.9	94.3	35
Jaisalmer	75.0	87.5	12.5	25.0	100.0	100.0	100.0	8
Jalore	95.0	95.0	40.0	40.0	100.0	100.0	95.0	20
Jhalawar	56.3	56.3	25.0	12.5	93.8	81.3	93.8	16
Jhunjhunu	93.8	75.0	50.0	43.8	100.0	81.3	100.0	16
Jodhpur	45.7	68.6	20.0	14.3	91.4	85.7	88.6	35
Karauli	87.5	62.5	37.5	25.0	100.0	100.0	100.0	8
Kota	33.3	75.0	33.3	25.0	91.7	91.7	100.0	12
Nagour	76.5	67.6	44.1	20.6	100.0	94.1	94.1	34
Pali	50.0	42.9	7.1	7.1	92.9	85.7	100.0	14
Pratapgarh	93.3	60.0	33.3	46.7	93.3	86.7	93.3	15
Rajsamand	86.7	73.3	40.0	13.3	100.0	93.3	100.0	15
Sawai Madhopur	66.7	50.0	50.0	41.7	100.0	91.7	100.0	12
Sikar	25.0	25.0	43.8	31.3	81.3	87.5	87.5	16
Tonk	60.0	60.0	33.3	13.3	93.3	60.0	86.7	15

Table 11: Indicators by trained and untrained schools	Deworming Day		Mop-Up Day		Aggregate (DD & MUD)	
	Trained Schools	Untrained Schools	Trained Schools	Untrained Schools	Trained Schools	Untrained Schools
Indicators						
Teachers aware that if child is unwell could not give her/him the deworming tablet	97.5	97.7	96.1	83.0	96.8	90.4
Percentage of teachers who thought it was acceptable for sick children to be dewormed	2.5	2.3	2.6	2.1	2.6	2.2
Teachers who told the children to chew the tablets before swallowing it	94.7	92.7	96.9	97.1	95.7	94.7
Teachers who followed the correct recording protocol of ticking (single tick on Deworming Day and double tick on Mop-Up Day)	88.2	75.6	72.3	58.8	80.9	68.0
Schools where children were given less than one tablet	5.3	2.4	10.8	8.8	7.8	5.4
Schools where children were given more than one tablet	3.9	0.0	0.0	2.9	2.1	1.3
Teachers aware that one deworming tablet were to be given	100.0	97.7	98.7	95.7	99.4	96.7
Percentage of teachers who did not think there could be adverse effects due to deworming	46.8	34.1	37.7	46.8	42.3	40.4
Teachers who believed the following to be the adverse effects of deworming						
Mild abdominal pain	66.7	62.1	75.0	56.0	70.8	59.0
Nausea/vomiting	85.7	89.7	87.5	92.0	86.6	90.8
Diarrhea	19.0	31.0	27.1	20.0	23.1	25.5
Fatigue	16.7	10.3	18.8	12.0	17.7	11.2
When asked about their response in case a student suffers from adverse effects, the teachers answered:						
Make the child lie down in shade	65.8	47.7	58.4	42.6	62.1	45.2
Take the child to the hospital immediately	59.5	79.5	63.6	83.0	61.6	81.3
When asked about their response in case a student continues to suffer from adverse effects, the teachers answered :						
Call PHC or emergency number	51.3	31.8	37.7	23.4	44.5	27.6
Take the child to the hospital immediately	74.4	90.9	79.2	85.1	76.8	88.0
Respondents who were aware of the last date of submission of School reporting form	50.6	59.1	70.1	48.9	60.3	54.0
Respondents who were aware of whom to submit the school reporting form to	92.4	84.1	92.2	87.2	92.3	85.7
Respondents who were aware of one copy of school reporting form to be submitted	72.2	81.8	88.3	78.7	80.2	80.3
Respondents who were aware that a copy of school reporting form have to retain in the school	93.7	93.2	97.4	95.7	95.5	94.5

Table 12: Aggregate level analysis (DD, MUD & CV)		
	Indicators	Percentage
	Responses from the headmasters/principals interviewed:	
1	Attended training for deworming program	63.8
2	For schools that didn't attend training, reasons were:	
	Problem with the location of training	0.5
	Problem with the timing of training	0.9
	Weren't aware of the date of training	24.2
	Problem due to monitory constraints	0.0
	No information about training	48.4
	Other reasons	26.0
3	Received SMS about deworming program	69.8
4	Received poster about deworming program	36.2
5	Received handouts about deworming program	30.4
6	Schools had sufficient drugs for deworming	94.4
7	Schools had surplus storage of drugs after deworming	82.9
8	Schools where Children got deworming tablet on Deworming Day/Mop-Up Day	94.1
9	Schools where school reporting form was available	84.0
	Response from the children interviewed:	
10	Percentage of children who were present on Deworming Day or Mop-Up Day received deworming tablet	93.8

Table 13: Anganwadi related indicators (based on coverage validation data)	Percentage
Anganwadis had sufficient drugs for deworming	89.4
Anganwadis had surplus storage of drugs for deworming	60.6
Anganwadis where Anganwadi reporting form was available	53.5
Anganwadis received information on deworming by the lady supervisor in the departmental meeting	89.6
Anganwadis received SMS about deworming program	17.6
Anganwadis received poster about deworming program	51.1
Anganwadis received handouts about deworming program	29.3
Registered children received deworming drug (response from the Anganwadi worker)	91.5
Anganwadis reported mild adverse event after taking the drug	29.0
Anganwadis reported serious adverse event after taking the drug	0.3
The followings adverse event was happened after taking the drug	
Mild abdominal pain	39.8
Nausea/vomiting	49.1
Diarrhea	18.5
Fatigue	8.3
Asked AWW about their response on that adverse events-	
Ask the child lie down in shade	37.0
Take the child to the hospital immediately/doctor was called immediately	37.0
Anganwadis received adverse event reporting form	5.5
Anganwadis followed recording protocol	63.3
State level verification factor for Anganwadis	0.80108
State inflation rate (which measures the extent to which the recording in Anganwadi reporting forms exceeds records at Anganwadis)	24.8
Inflation rate for Anganwadis that followed the recording protocol	6.8
Non-compliance of recording protocol	36.4
Inaccuracy among compliant Anganwadis (Anganwadis following recording protocols where ticks in registers did not match what was reported in Anganwadi reporting forms)	7.4