Research paper

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Hand Hygiene and Sanitation Behaviour in Rural Prayagraj District of Uttar Pradesh

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Abstract

Background: The main mode of transmission of the COVID-19 virus is respiratory and contact so frequent hand washing with soap under running water for at least 20 seconds is recommended by WHO. In this research paper, an attempt has been made to show the kind of change has taken place in the knowledge, attitude and practice of people on hand washing in rural Uttar Pradesh after COVID-19. Objectives: To examine the knowledge, attitude and practice of the people on hand washing in rural Prayagraj District of Uttar Pradesh. Methods: Two stage stratified random sampling method was followed for the selection of two Blocks, 20 villages and 600 respondents in Prayagrag, Uttar Pradesh. Respondents above 18 years of age were interviewed for the study to assess the existing knowledge, attitude and practice on the hygiene and sanitation. Results: Hygiene is one of the important components of the study. Therefore, it was found in the study that 77.3 percent respondents wash their hands first by plain water. Analysis indicates that all of respondents wash their hands in one form or other thereby reflecting washing hands is well established practice in the villages. In all households where the interview was conducted a set of five observations were made in which it was observed that hand washing place was established only in 36.7 percent households. Conclusion: People in the rural areas are not following necessary sanitation, hygiene and health related practices because of their own habits. Lack of awareness, poor economic condition, low education, and poor water supply, lack of space and age old habit are the major hurdles people are not following proper sanitation, hygiene and health related practices in their houses.

Keywords: Hand, washing, hygiene, sanitation, behaviour

Introduction

Infectious diseases are a major cause of morbidity and mortality, in both developed and developing countries. Contaminated hands are the primary mode of transmission of many infectious diseases, as hands can transmit pathogens from faeces to surfaces, to foods and to future hosts (Norris *et al.*, 2012).

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Many pervious researches shows that despite the advantages of hand washing with soap, handwashing rates was low (Luby *et al.*, 2020; Watson *et al.*, 2019; Biran *et al.*, 2012; Freeman *et al.*, 2014; Phillips *et al.*, 2015) before the Covid -19 outbreak around the world. Now hand hygiene in general populations has received new importance after the novel corona virus pandemic (Lynch et al., 2020).

Handwashing with soap (HWWS) is one of the most cost-effective public health interventions (Jamieson et al., 2006) and reduce the risk of diarrhoea (Watson *et al.*, 2019). Many people know that washing hands with soap is a good, though this behaviour is not normally practiced (Wolf *et al.*, 2018).

Hand hygiene is often considered identical with hand washing or hand cleaning and it is the most major factor in preventing infections by preventing contact and fecal-oral transmission of pathogens (Boyce and Pittet, 2002; Widmer, 2000). Hand hygiene is an important public health practice (Burton et al., 2011; Tao et al., 2013) and it has long been recognized as the most accurate, necessary and cost-effective way to prevent infectious diseases (Tao et al., 2013). During the COVID-19 pandemic, frequent hand washing with soap and water was discussed as one of the most important and useful measures to decrease the spread of the virus (CDC, 2020; UNICEF, 2020; WHO and UNICEF, 2020). In addition to that,, WHO and UNICEF also recommend turning off the taps while applying soap and scrubbing hands for at least 20 seconds to avoid water loss (WHO and UNICEF, 2020).

In this way, hand washing is an important effort to protect the human species from many types of infectious diseases and to make a healthy society. The present research work has been done for this purpose, so that the knowledge, attitudes and practice of the rural people in the society can be understood in a better way in relation to their health and well-being.

Objectives

- 1. To study hand washing related activities of the respondents.
- 2. To understand the health status of the respondents.
- 3. To observe sanitation and hygiene related activities of the household.

Methodology

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Keeping in view the objectives of the project both quantitative and observation methods were used for primary data collection at household level. Desk review and analysis of secondary literature/data were also carried out. A research team along with Project Director were reviewed review all secondary published and unpublished reports including national level studies in the context of hygiene, sanitation and health in India. Available information from various sources was reviewed for getting information related to the study. As a part of holistic assessment, sample survey method of data collection was adopted. Two stage stratified random sampling method was followed for the selection of two Blocks, 20 villages and 600 respondents in Prayagrag, Uttar Pradesh. Respondents above 18 years of age were interviewed for the study to assess the existing knowledge, attitude and practice on the hygiene and sanitation. A code book was developed for coding the responses of open ended questions before the data entry. The code book was finalized by Project Director with the help of Data Analyst. Data analysis of survey was carried out by using latest version of SPSS. The output of the bi-variate and multi variate analysis was presented in the form of percentages, cross tabulation and appropriate statistical test.

Result and Discussion Washing of Hands and Related Activities

Hygiene is one of the important components of the study. It involves analysis and evaluation of health and hygiene practices related to hand washing and personal health practices. A series of questions were asked to the respondents about washing of hands and related activities.

In response to multiple choice questions, Table-1 indicates that as much as 77.3 percent respondents wash their hands first by plain water followed by soap and 7.0 percent respondents wash their hand by plain water. Another 6.7 percent respondents use plain water followed by detergent and 5.2 percent respondents use water followed by mud for washing hands. Washing hand with plain water followed by soap has been adopted by 80.7 percent respondents' in Soraon Block and 74.0 percent respondents' in Meja Block.

Analysis indicates that all of respondents wash their hands in one form or other thereby reflecting washing hands is well established practice in the villages. In spite of very high prevalence of washing hand with soap however, there is a slight variation among the

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respondents belonging to *Kutchha* houses (69.6 percent), *Pucca* houses (82.8 percent) and Semi-*pucca* houses (78.7 percent). Detailed analysis would be required to asses if there are statistically significant differences of hand washing among various social groups of respondents.

Almost all houses reported having assigned washing area, thereby reflecting high cleanliness for good health and hygiene. In 128 houses, there is a fixed location inside the house (58.2 percent) or outside the house (39.5 percent) for washing hand. Water and soap is available to 88.6 percent respondents in their houses (Figure 1).

Figure 1

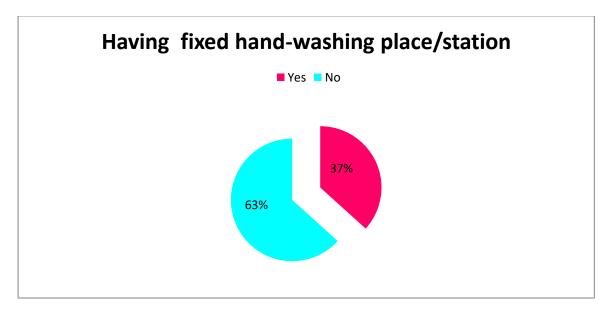
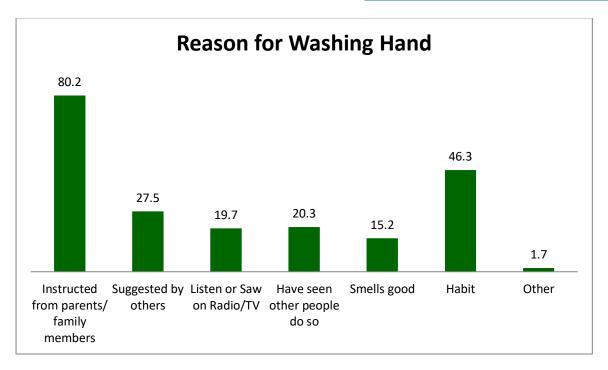


Figure 2





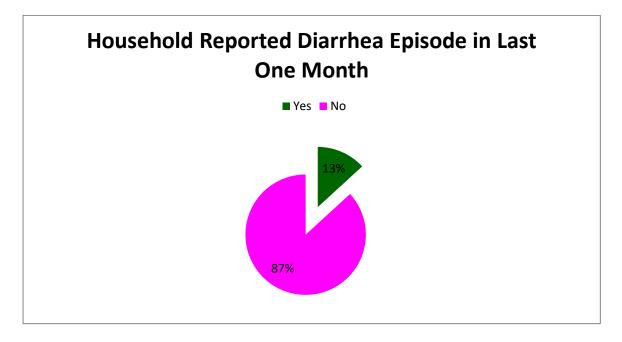
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Health Status

Respondents have reported low level of illness in the household (13.2 percent reported illness in the household) (Figure 3). Among those who were ill went largely to private hospital/doctor/clinic for treatment (48.1 percent). More female (50.0 percent) compared to (46.8 percent) male received such private treatment, a pattern similar to what has been found elsewhere. CHC/Rural Hospitals/PHC is second most preferred for treatment where male (23.4 percent) compared to female (12.5 percent) received treatment (Table-2).

Figure 3



Household Cleanliness

In all households where the interview was conducted a set of five observations were made after completing the interview by the Field Investigator. These observations included scattering of human faeces, flies in and around the toilet, children defecating in and around the house and loitering of animals around water sources and in and around houses. It was felt that if the answer is "no" for items 1, 2, 4 and 5 and "yes" for item 3 the household should be considered as clean. Table 16 shows that on every item on average more than 40 percent households could not qualify to be a clean house. Highest being 41.2 percent where children were found to be defecating in and around houses and 45.0 percent where animals loitering

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around water sources and in and around houses. On the whole 600 houses observed to be moderately clean (Table 3).

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Table 1: Washing of Hands and Related Activities

		Bl	ock			Ger	nder			Educ	ation					Ca	ste					BPL	Card				Type o	f House			Т	otal
Hands & Related	Μ	eja	So	raon	M	lale	Fe	male	Illit	erate	Lit	erate	Ge	neral	SC	C/ST	0	BC	Min	ority	Y	es	I	No	Kut	tccha	Pu	cca	Semi	-pucca		
Activities	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Wash Hand																																
With only plain water	27	9.0	15	5.0	24	7.3	18	6.6	24	10.9	18	4.7	7	7.4	14	7.9	18	6.6	3	5.6	33	7.8	9	5.1	21	11.0	11	5.0	10	5.3	42	7.0
With plain water followed by soap	222	74.0	242	80.7	248	75.6	216	79.4	163	73.8	301	79.4	70	73.7	135	76.3	212	77.4	47	87.0	325	76.5	139	79.4	133	69.6	183	82.8	148	78.7	464	77.3
With plain water followed by Detergent	13	4.3	27	9.0	22	6.7	18	6.6	14	6.3	26	6.9	8	8.4	10	5.6	19	6.9	3	5.6	30	7.1	10	5.7	13	6.8	15	6.8	12	6.4	40	6.7
With plain water followed by Ashes	6	2.0	5	1.7	8	2.4	3	1.1	4	1.8	7	1.8	3	3.2	2	1.1	6	2.2	0	0.0	5	1.2	6	3.4	5	2.6	3	1.4	3	1.6	11	1.8
With plain water followed by Mud	25	8.3	6	2.0	11	3.4	20	7.4	14	6.3	17	4.5	4	4.2	14	7.9	10	3.6	3	5.6	24	5.6	7	4.0	15	7.9	5	2.3	11	5.9	31	5.2
Others	4	1.3	9	3.0	5	1.5	8	2.9	6	2.7	7	1.8	1	1.1	7	4.0	5	1.8	0	0.0	10	2.4	3	1.7	6	3.1	5	2.3	2	1.1	13	2.2
Total HHs.	300	100.0	300	100.0	328	100.0	272	100.0	221	100.0	379	100.0	95	100.0	177	100.0	274	100.0	54	100.0	425	100.0	175	100.0	191	100.0	221	100.0	188	100.0	600	100.0
Reason for Washi	ng Ha	nd																														
Instructed from parents/ family members	275	91.7	206	68.7	252	76.8	229	84.2	173	78.3	308	81.3	83	87.4	147	83.1	208	75.9	43	79.6	330	77.6	151	86.3	160	83.8	171	77.4	150	79.8	481	80.2
Suggested other people	119	39.7	46	15.3	99	30.2	66	24.3	58	26.2	107	28.2	39	41.1	54	30.5	54	19.7	18	33.3	112	26.4	53	30.3	54	28.3	49	22.2	62	33.0	165	27.5
Listen and saw on radio/TV	83	27.7	35	11.7	76	23.2	42	15.4	37	16.7	81	21.4	28	29.5	39	22.0	42	15.3	9	16.7	82	19.3	36	20.6	31	16.2	38	17.2	49	26.1	118	19.7
Have seen other people do so	69	23.0	53	17.7	64	19.5	58	21.3	40	18.1	82	21.6	18	18.9	45	25.4	46	16.8	13	24.1	81	19.1	41	23.4	35	18.3	37	16.7	50	26.6	122	20.3
Smells good	59	19.7	32	10.7	53	16.2	38	14.0	26	11.8	65	17.2	23	24.2	19	10.7	41	15.0	8	14.8	51	12.0	40	22.9	34	17.8	26	11.8	31	16.5	91	15.2
As habit	111	37.0	167	55.7	157	47.9	121	44.5	88	39.8	190	50.1	38	40.0	67	37.9	144	52.6	29	53.7	191	44.9	87	49.7	76	39.8	123	55.7	79	42.0	278	46.3
Other	2	0.7	8	2.7	7	2.1	3	1.1	3	1.4	7	1.8	1	1.1	4	2.3	3	1.1	2	3.7	8	1.9	2	1.1	2	1.0	6	2.7	2	1.1	10	1.7
Total HHs.	300	100.0	300	100.0	328	100.0	272	100.0	221	100.0	379	100.0	95	100.0	177	100.0	274	100.0	54	100.0	425	100.0	175	100.0	191	100.0	221	100.0	188	100.0	600	100.0
Having fixed hand	d-was	hing pl	ace/ s	tation																												
Yes	117	39.0	103	34.3	120	36.6	100	36.8	59	26.7	161	42.5	46	48.4	71	40.1	72	26.3	31	57.4	139	32.7	81	46.3	54	28.3	92	41.6	74	39.4	220	36.7
No	183	61.0	197	65.7	208	63.4	172	63.2	162	73.3	218	57.5	49	51.6	106	59.9	202	73.7	23	42.6	286	67.3	94	53.7	137	71.7	129	58.4	114	60.6	380	63.3
Location of Fixed	Hand	Washi	ing Pla	ace																												
Inside the house	60	51.3	68	66.0	73	60.8	55	55.0	28	47.5	100	62.1	36	78.3	26	36.6	45	62.5	21	67.7	71	51.1	57	70.4	26	48.1	68	73.9	34	45.9	128	58.2
Outside the house	53	45.3	34	33.0	44	36.7	43	43.0	30	50.8	57	35.4	10	21.7	45	63.4	24	33.3	8	25.8	64	46.0	23	28.4	28	51.9	24	26.1	35	47.3	87	39.5

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		Bl	ock			Gei	ıder			Educ	ation					Ca	ste					BPL	Card				Type o	f House			Т	otal
Hands & Related	Μ	eja	So	raon	M	Iale	Fe	male	Illit	erate	Lite	erate	Ger	neral	SC	C/ST	0	BC	Mir	nority	J	les	1	No	Kut	tccha	Pu	cca	Semi	-pucca		
Activities	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Others	4	3.4	1	1.0	3	2.5	2	2.0	1	1.7	4	2.5	0	0.0	0	0.0	3	4.2	2	6.5	4	2.9	1	1.2	0	0.0	0	0.0	5	6.8	5	2.3
Total	117	100.0	103	34.3	120	36.6	100	36.8	59	26.7	161	42.5	46	48.4	71	40.1	72	26.3	31	57.4	139	32.7	81	46.3	54	28.3	92	41.6	74	39.4	220	36.7
If yes, does it alwa	ys hav	ve Wat	er and	d Soap											1																	
Yes	- 99	84.6	96	93.2	107	89.2	88	88.0	48	81.4	147	91.3	40	87.0	59	83.1	65	90.3	31	100.0	126	90.6		85.2	46	85.2	85	92.4	64	86.5	195	88.6
No	18	15.4	7	6.8	13	10.8	12	12.0	11	18.6	14	8.7	6	13.0	12	16.9	7	9.7	0	0.0	13	9.4	12	14.8	8	14.8	7	7.6	10	13.5	25	11.4
Total	117	100.0	103	100.0	120	100.0	100	100.0	59	100.0	161	100.0	46	100.0	71	100.0	72	100.0	31	100.0	139	100.0	81	100.0	54	100.0	92	100.0	74	100.0	220	100.0
If no, place where	Child	ren W	ash H	ands											ļ																	
At the water source	152	83.1	180	91.4	181	87.0	151	87.8	137	84.6	195	89.4	42	85.7	92	86.8	176	87.1	22	95.7	253	88.5	79	84.0	116	84.7	115	89.1	101	88.6	332	87.4
Outside or near the latrine	8	4.4	3	1.5	6	2.9	5	2.9	7	4.3	4	1.8	2	4.1	4	3.8	4	2.0	1	4.3	8	2.8	3	3.2	4	2.9	5	3.9	2	1.8	11	2.9
In the kitchen area	4	2.2	2	1.0	3	1.4	3	1.7	5	3.1	1	0.5	0	0.0	2	1.9	4	2.0	0	0.0	6	2.1	0	0.0	2	1.5	3	2.3	1	0.9	6	1.6
Anywhere outside the house	14	7.7	7	3.6	11	5.3	10	5.8	12	7.4	9	4.1	4	8.2	5	4.7	12	5.9	0	0.0	11	3.8	10	10.6	10	7.3	4	3.1	7	6.1	21	5.5
Others	5	2.7	5	2.5	7	3.4	3	1.7	1	0.6	9	4.1	1	2.0	3	2.8	6	3.0	0	0.0	8	2.8	2	2.1	5	3.6	2	1.6	3	2.6	10	2.6
Total	183	100.0	197	100.0	208	100.0	172	100.0	162	100.0	218	100.0	49	100.0	106	100.0	202	100.0	23	100.0	286	100.0	94	100.0	137	100.0	129	100.0	114	100.0	380	100.0
Daily Practice															1																	
Brush teeth everyday	289	96.3	295	98.3	317	96.6	267	98.2	212	95.9	372	98.2	92	96.8	172	97.2	266	97.1	54	100.0	413	97.2	171	97.7	185	96.9	216	97.7	183	97.3	584	97.3
Take bath everyday	255	85.0	279	93.0	292	89.0	242	89.0	190	86.0	344	90.8	84	88.4	162	91.5	240	87.6	48	88.9	378	88.9	156	89.1	168	88.0	200	90.5	166	88.3	534	89.0
Keep the children clean and tidy	272	90.7	266	88.7	299	91.2	239	87.9	188	85.1	350	92.3	85	89.5	157	88.7	246	89.8	50	92.6	374	88.0	164	93.7	171	89.5	201	91.0	166	88.3	538	89.7
Wash hands with soap after defecation	283	94.3	285	95.0	310	94.5	258	94.9	205	92.8	363	95.8	90	94.7	170	96.0	256	93.4	52	96.3	398	93.6	170	97.1	176	92.1	211	95.5	181	96.3	568	94.7
Wash hands after disposal of child's faeces	250	83.3	238	79.3	273	83.2	215	79.0	168	76.0	320	84.4	78	82.1	145	81.9	217	79.2	48	88.9	337	79.3	151	86.3	155	81.2	188	85.1	145	77.1	488	81.3
Wash hands before preparation of food	227	75.7	221	73.7	247	75.3	201	73.9	155	70.1	293	77.3	73	76.8	143	80.8	189	69.0	43	79.6	313	73.6	135	77.1	134	70.2	174	78.7	140	74.5	448	74.7
Wash hands before taking meal	217	72.3	202	67.3	228	69.5	191	70.2	133	60.2	286	75.5	70	73.7	129	72.9	174	63.5	46	85.2	279	65.6	140	80.0	131	68.6	149	67.4	139	73.9	419	69.8
Wash utensils with soaps meant for it/ash/mud	142	47.3	127	42.3	143	43.6	126	46.3	84	38.0	185	48.8	46	48.4	95	53.7	95	34.7	33	61.1	180	42.4	89	50.9	81	42.4	100	45.2	88	46.8	269	44.8
Wash clothes everyday	89	29.7	82	27.3	86	26.2	85	31.3	51	23.1	120	31.7	24	25.3	64	36.2	58	21.2	25	46.3	112	26.4	59	33.7	51	26.7	64	29.0	56	29.8	171	28.5

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Hands & Related		Blo	ock			Ger	der			Educa	ation					Ca	ste					BPL	Card				Type of	f House			T	otal
	M	eja	So	raon	M	lale	Fe	nale	Illit	erate	Lite	erate	Gei	neral	SC	C/ST	0	BC	Mir	ority	Y	es	1	No	Kut	tccha	Pu	cca	Semi	-pucca		
Activities	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Wipe the floors with phenyl	32	10.7	29	9.7	35	10.7	26	9.6	14	6.3	47	12.4	12	12.6	20	11.3	17	6.2	12	22.2	30	7.1	31	17.7	7	3.7	38	17.2	16	8.5	61	10.2
Others	4	1.3	8	2.7	5	1.5	7	2.6	6	2.7	6	1.6	4	4.2	3	1.7	5	1.8	0	0.0	7	1.6	5	2.9	3	1.6	4	1.8	5	2.7	12	2.0
Total HHs.	300	100.0	300	100.0	328	100.0	272	100.0	221	100.0	379	100.0	95	100.0	177	100.0	274	100.0	54	100.0	425	100.0	175	100.0	191	100.0	221	100.0	188	100.0	600	100.0

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Table 2: Health Status

		Bl	ock			Ger	nder			Educa	tion					Cas	ste					BPL	Card				Туре	of House	•			
Health Status	N	leja	So	raon	N	fale	Fe	male	Illit	erate	Lite	erate	G	eneral	S	C/ST	(OBC	Mi	nority	Y	'es	1	No	Ku	tccha		ucca		-pucca	Т	otal
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Last one month ha	is any	one Su	Iffere	d from	Diarr	hea																										
Yes	69	23.0	10	3.3	47	14.3	32	11.8	27	12.2	52	13.7	29	30.5	14	7.9	29	10.6	7	13.0	51	12.0	28	16.0	34	17.8	26	11.8	19	10.1	79	13.2
No	231	77.0	290	96.7	281	85.7	240	88.2	194	87.8	327	86.3	66	69.5	163	92.1	245	89.4	47	87.0	374	88.0	147	84.0	157	82.2	195	88.2	169	89.9	521	86.8
Total HHs.	300	100.0	300	100.0	328	100.0	272	100.0	221	100.0	379	100.0	95	100.0	177	100.0	274	100.0	54	100.0	425	100.0	175	100.0	191	100.0	221	100.0	188	100.0	600	100.0
Place of Treatmen	t																															
Sub Centre	12	17.4	1	10.0	5	10.6	8	25.0	6	22.2	7	13.5	6	20.7	2	14.3	3	10.3	2	28.6	8	15.7	5	17.9	5	14.7	4	15.4	4	21.1	13	16.5
Government Clinic/ Hospital	11	15.9	1	10.0	7	14.9	5	15.6	9	33.3	3	5.8	6	20.7	5	35.7	1	3.4	0	0.0	10	19.6	2	7.1	7	20.6	3	11.5	2	10.5	12	15.2
CHC/Rural Hospital/PHC	15	21.7	0	0.0	11	23.4	4	12.5	5	18.5	10	19.2	7	24.1	4	28.6	4	13.8	0	0.0	8	15.7	7	25.0	5	14.7	7	26.9	3	15.8	15	19.0
Anganwadi/ICDS Centre	12	17.4	0	0.0	8	17.0	4	12.5	5	18.5	7	13.5	8	27.6	4	28.6	0	0.0	0	0.0	6	11.8	6	21.4	9	26.5	1	3.8	2	10.5	12	15.2
Govt. Mobile Clinic	7	10.1	0	0.0	5	10.6	2	6.3	4	14.8	3	5.8	5	17.2	2	14.3	0	0.0	0	0.0	4	7.8	3	10.7	5	14.7	1	3.8	1	5.3	7	8.9
Traditional Healing	7	10.1	0	0.0	5	10.6	2	6.3	4	14.8	3	5.8	4	13.8	2	14.3	1	3.4	0	0.0	4	7.8	3	10.7	5	14.7	1	3.8	1	5.3	7	8.9
Pvt. hospital/ doctor/clinic	32	46.4	6	60.0	22	46.8	16	50.0	12	44.4	26	50.0	10	34.5	5	35.7	18	62.1	5	71.4	27	52.9	11	39.3	17	50.0	11	42.3	10	52.6	38	48.1
Village Vaidya/ Hakim/ Homeopath	8	11.6	0	0.0	5	10.6	3	9.4	2	7.4	6	11.5	5	17.2	2	14.3	1	3.4	0	0.0	3	5.9	5	17.9	3	8.8	3	11.5	2	10.5	8	10.1
Dai / neighbour	3	4.3	0	0.0	2	4.3	1	3.1	2	7.4	1	1.9	1	3.4	2	14.3	0	0.0	0	0.0	2	3.9	1	3.6	2	5.9	0	0.0	1	5.3	3	3.8
Home remedy	6	8.7	1	10.0	3	6.4	4	12.5	4	14.8	3	5.8	2	6.9	2	14.3	1	3.4	2	28.6	7	13.7	0	0.0	3	8.8	3	11.5	1	5.3	7	8.9
Others	3	4.3	1	10.0	2	4.3	2	6.3	2	7.4	2	3.8	0	0.0	2	14.3	0	0.0	2	28.6	4	7.8	0	0.0	3	8.8	1	3.8	0	0.0	4	5.1
No. of HHs Suffered from Diarrhea in last one	69	100.0	10	100.0	47	100.0	32	100.0	27	100.0	52	100.0	29	100.0	14	100.0	29	100.0	7	100.0	51	100.0	28	100.0	34	100.0	26	100.0	19	100.0	79	100.0

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Table 3: Household Observation

| | Blo | ock | | | Ger | nder | | | Educa | ation |

 | | | | Cast | e | | | | | BPL (
 | Card | | | | Туре | of House | • |
 | | |
|--------|---|---|---|--|---|---|--|---|--|--
--
--
--|---|---|---|---|---|---
---|---|---|---|---|---|---|---|---
--|---|---|---|---|
| М | eja | So | raon | N | lale | Fe | male | Illit | erate | Lite | erate

 | Ge | eneral | SC | /ST | 0 | BC | Mir | nority | Y | es
 | I | No | Ku | tccha | P | icca | Semi | -pucca
 | 1 | otal |
| N | % | Ν | % | Ν | % | N | % | N | % | N | %

 | N | % | Ν | % | N | % | N | % | Ν | %
 | N | % | N | % | Ν | % | N | %
 | N | % |
| ble o | n the f | loor o | or Slab | of To | ilet | | | | | |

 | | | | | | | | | |
 | | | | | | | |
 | | |
| 8 | 2.7 | 12 | 4.0 | 10 | 3.0 | 10 | 3.7 | 10 | 4.5 | 10 | 2.6

 | 2 | 2.1 | 11 | 6.2 | 6 | 2.2 | 1 | 1.9 | 10 | 2.4
 | 10 | 5.7 | 8 | 4.2 | 7 | 3.2 | 5 | 2.7
 | 20 | 3.3 |
| 292 | 97.3 | 288 | 96.0 | 318 | 97.0 | 262 | 96.3 | 211 | 95.5 | 369 | 97.4

 | 93 | 97.9 | 166 | 93.8 | 268 | 97.8 | 53 | 98.1 | 415 | 97.6
 | 165 | 94.3 | 183 | 95.8 | 214 | 96.8 | 183 | 97.3
 | 580 | 96.7 |
| oilet | | | | | | | | | | |

 | | | | | | | | | |
 | | | | | | | |
 | | |
| 15 | 5.0 | 18 | 6.0 | 16 | 4.9 | 17 | 6.3 | 14 | 6.3 | 19 | 5.0

 | 5 | 5.3 | 20 | 11.3 | 5 | 1.8 | 3 | 5.6 | 18 | 4.2
 | 15 | 8.6 | 9 | 4.7 | 13 | 5.9 | 11 | 5.9
 | 33 | 5.5 |
| 285 | 95.0 | 282 | 94.0 | 312 | 95.1 | 255 | 93.8 | 207 | 93.7 | 360 | 95.0

 | 90 | 94.7 | 157 | 88.7 | 269 | 98.2 | 51 | 94.4 | 407 | 95.8
 | 160 | 91.4 | 182 | 95.3 | 208 | 94.1 | 177 | 94.1
 | 567 | 94.5 |
| ce Ins | side or | just (| Outsid | e the l | Home | | | | | |

 | | | | | | | | | |
 | | | | | | | |
 | | |
| 117 | 39.0 | 103 | 34.3 | 120 | 36.6 | 100 | 36.8 | 59 | 26.7 | 161 | 42.5

 | 46 | 48.4 | 71 | 40.1 | 72 | 26.3 | 31 | 57.4 | 139 | 32.7
 | 81 | 46.3 | 54 | 28.3 | 92 | 41.6 | 74 | 39.4
 | 220 | 36.7 |
| 183 | 61.0 | 197 | 65.7 | 208 | 63.4 | 172 | 63.2 | 162 | 73.3 | 218 | 57.5

 | 49 | 51.6 | 106 | 59.9 | 202 | 73.7 | 23 | 42.6 | 286 | 67.3
 | 94 | 53.7 | 137 | 71.7 | 129 | 58.4 | 114 | 60.6
 | 380 | 63.3 |
| in th | ne Hou | se or | aroun | d the l | House | | | | | |

 | | | | | | | | | |
 | | | | | | | |
 | | |
| 126 | 42.0 | 121 | 40.3 | 154 | 47.0 | 93 | 34.2 | 91 | 41.2 | 156 | 41.2

 | 44 | 46.3 | 59 | 33.3 | 126 | 46.0 | 18 | 33.3 | 177 | 41.6
 | 70 | 40.0 | 80 | 41.9 | 91 | 41.2 | 76 | 40.4
 | 247 | 41.2 |
| 174 | 58.0 | 179 | 59.7 | 174 | 53.0 | 179 | 65.8 | 130 | 58.8 | 223 | 58.8

 | 51 | 53.7 | 118 | 66.7 | 148 | 54.0 | 36 | 66.7 | 248 | 58.4
 | 105 | 60.0 | 111 | 58.1 | 130 | 58.8 | 112 | 59.6
 | 353 | 58.8 |
| in an | d arou | nd Dr | rinking | g Wat | er Sour | ce and | d in aro | und H | ouse | |

 | | | | | | | | | |
 | | | | | | | |
 | | |
| 174 | 58.0 | 96 | 32.0 | 157 | 47.9 | 113 | 41.5 | 96 | 43.4 | 174 | 45.9

 | 54 | 56.8 | 67 | 37.9 | 133 | 48.5 | 16 | 29.6 | 184 | 43.3
 | 86 | 49.1 | 96 | 50.3 | 93 | 42.1 | 81 | 43.1
 | 270 | 45.0 |
| 126 | 42.0 | 204 | 68.0 | 171 | 52.1 | 159 | 58.5 | 125 | 56.6 | 205 | 54.1

 | 41 | 43.2 | 110 | 62.1 | 141 | 51.5 | 38 | 70.4 | 241 | 56.7
 | 89 | 50.9 | 95 | 49.7 | 128 | 57.9 | 107 | 56.9
 | 330 | 55.0 |
| 300 | 100.0 | 300 | 100.0 | 328 | 100.0 | 272 | 100.0 | 221 | 100.0 | 379 | 100.0

 | 95 | 100.0 | 177 | 100.0 | 274 | 100.0 | 54 | 100.0 | 425 | 100.0
 | 175 | 100.0 | 191 | 100.0 | 221 | 100.0 | 188 | 100.0
 | 600 | 100.0 |
| | N ble o 8 292 oilet 15 285 ce Ins 1117 1833 in th 126 174 126 | Meja N % ble on the f 8 292 97.3 oilet 15 15 5.0 285 95.0 ce Inside or 117 117 39.0 183 61.0 in the Hou 126 174 58.0 in and arou 174 126 42.0 | N % N ble on the floor of 8 2.7 12 292 97.3 288 oilet 285 95.0 282 285 95.0 282 282 281 95.0 282 283 283 95.0 282 283 284 95.0 282 282 285 95.0 282 282 284 95.0 103 103 183 61.0 197 103 183 61.0 197 121 174 58.0 179 in and around Dr 174 58.0 96 126 42.0 204 121 | Meija Soraon N % N % ble on the floor or Slah 3 4.0 8 2.7 12 4.0 292 97.3 288 96.0 292 97.3 288 96.0 292 97.3 288 96.0 292 97.3 288 96.0 292 97.3 288 96.0 292 97.3 288 96.0 292 97.3 288 96.0 285 95.0 282 94.0 285 95.0 282 94.0 285 95.0 282 94.0 285 95.0 103 34.3 117 39.0 103 34.3 126 42.0 121 40.3 174 58.0 96 32.0 126 42.0 204 | Meja Soran M N % N % N ble on the For or Slab of To Slab of To Slab of To 8 2.7 12 4.0 10 292 97.3 288 96.0 318 oilet | Meja Soran Male N % N % N % ble on the floor or Slab of Toilet T T T T T 8 2.7 12 4.0 10 3.0 292 97.3 288 96.0 318 97.0 $oilet$ V V V V V 15 5.0 18 6.0 16 4.9 285 95.0 282 94.0 312 95.1 285 95.0 282 94.0 312 95.1 285 95.0 282 94.0 312 95.1 285 95.0 103 34.3 120 36.6 117 39.0 103 34.3 120 36.6 117 39.0 103 34.3 120 36.6 1174 58.0 17 | Meja Soran Male Fe N % N % N % N ble on the floor or Slab of Toilet 3.0 10 3.0 10 292 97.3 288 96.0 318 97.0 262 oilet III 4.0 10 3.0 10 15 5.0 18 6.0 16 4.9 17 285 95.0 282 94.0 312 95.1 255 ce inside or just Outside the Home 117 39.0 103 34.3 120 36.6 100 183 61.0 197 65.7 208 63.4 172 126 42.0 121 40.3 154 47.0 93 174 58.0 179 59.7 174 53.0 179 in and around aroun | Meiga Soron $Maie$ $Female$ N % N % N % N % bit % N % N % N % N % bit $Mit Mit Mit$ | Meja Soron Male Female Illit N % | Meja Soran Male Female Illiterate N % N % N % N % N % ble on the floor or Slab of Toilet Image: Soran of Soran | Meja Soraon Male Female Illiterate Litt N % <td< td=""><td>Meja Soraon Male Female Illiterate Literate N % N N</td><td>N N</td><td>N N N % N</td><td>N N</td><td>N N</td><td>N N</td><td>N N</td><td>N N</td><td>N N</td><td>N N</td><td>N N</td><td>N N</td><td>N N</td><td>i i</td><td>i i</td><td>Image: bold with the bold with the</td><td>i i</td><td>i i</td><td>i i</td><td>N <th< td=""></th<></td></td<> | Meja Soraon Male Female Illiterate Literate N % N N | N N | N N N % N | N N | N N | N N | N N | N N | N N | N N | N N | N N | N N | i i | i i | Image: bold with the | i i | i i | i i | N <th< td=""></th<> |

Source: Field Survey, 2021.

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Conclusion:

People in the rural areas are not following necessary sanitation, hygiene and health related practices because of their own habits. Lack of awareness, poor economic condition, low education, and poor water supply, lack of space and age old habit are the major hurdles people are not following proper sanitation, hygiene and health related practices in their houses. Few people believe these are the responsibility of government. Therefore, it is recommended that interdepartmental coordination is necessary to monitor and evaluate the sanitation and hygiene practices. There is need to motivate rural community to adopt sustainable sanitation practices with appropriate knowledge and technology. Training of community leaders is required to be carried out through social mobilization campaigns.

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