

WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit Ministry of Health, Nutrition & Indigenous Medicine

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Water Safety Planning for small community water supplies -Part I

What are small community water supplies, and why are they important?

The definition of a small community water supply can vary widely within and between countries. Some countries define small community water supplies by, for example, population size, the quantity of water provided, the number of service connections or the type of supply technology used. However, it is the operating and management challenges they face that most commonly set small community water supplies apart.

Experience shows that small community water supplies are more at risk of breakdown and contamination, leading to outbreaks of waterborne diseases. Small community water supply operators are often untrained or undertrained and sometimes unpaid. Not only that there may be no such responsible person.

What is a water safety plan (WSP)?

The WSP approach emphasizes preventive risk management. It requires that risks to drinking-water safety are identified, prioritized and managed to protect drinking-water quality before problems occur.

The most effective means of consistently ensuring the safety of a drinking-water supply is through the use of a comprehensive risk assessment and risk management approach that encompasses all steps in water supply from catchment to consumer. The approach is called Water Safety Plan (WSP)

However, since all risks cannot be immediately minimized because of, for example, limited resources, a WSP is implemented to make prioritized, incremental improvements over time.

Limitations of relying solely on drinking-water quality testing

Drinking-water suppliers usually rely on the results of water quality testing for the presence of microorganisms and other contaminants to check whether or not the water is safe to drink. Unfortunately, overreliance on such testing has several major drawbacks:

- Testing water quality is costly and cumbersome
- It is not feasible to test all water; only a fraction distributed to the community can ever be tested.
- It often takes time for water quality test results to be returned to the community or health authorities.
- People may fall ill before the problem has been identified.
- Water quality test results provide little information on when, why and where the contamination event occurred.





Therefore, even if a water quality problem has been detected, it may not be clear what action the community should take to correct the problem.

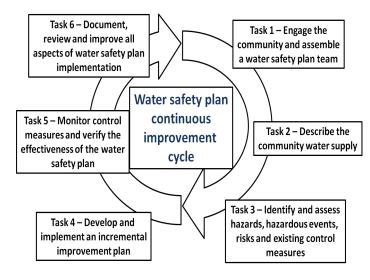
Testing is, and always will be, an important part of verifying drinking -water safety. However, a complementary approach is needed to better protect the consumer and lower the risk of contaminants entering drinking-water supplies in the first place.

How can a water safety plan be developed and implemented in a small community water supply?

The process of developing a WSP for community-managed supplies can be broken down into six tasks.

The WSP approach is not a recipe that needs to be followed rigidly to achieve success. It is meant to be flexible and adapted to local needs.

WSP in community water supplies



<u>Task 1 -Engage the community and assemble a</u> water safety plan team

1.1 Engage the community

For successful implementation of the WSP, it is important that the community, particularly community leaders and decision-makers, understand the benefits of the WSP approach. It is generally more efficient and effective to identify suitable members of the community to represent the community's interests as part of a WSP team.

1.2 Assemble a WSP team

The WSP team will be responsible for developing, implementing and maintaining the WSP. The team is also needed to help the communi-

ty to understand and accept the WSP approach. When choosing WSP team members, it is best to consult community leaders, such as elders, elected officials or other persons who know the community well. Ideally, team members will have varying backgrounds.

People who possess one or more of the following characteristics should be considered for team membership:

- is familiar with, and uses water from, the water supply;
- is responsible for the day-to-day operations of the water supply or has helped during construction or earlier repairs;
- has the authority to make decisions about spending money, training, recruiting staff and/or making changes to the water supply;
- has the knowledge and capacity to identify and characterize potential risks to the water supply from the catchment to the consumer;
- is responsible for or has the capacity to help manage and prevent those risks;
- is influential and interested, at both the community level and at least one administrative level up, in representing water quality concerns and investment needs at the district level or higher.

It is recommended that the WSP team involves local or regional government officials, particularly those with experience in drinkingwater related issues.

A WSP team leader should also be identified to oversee and drive WSP development and implementation efforts. This person should have sufficient authority in the community and good organizational and communication skills.

1.3 Document team membership

Once the WSP team is identified, names and roles of participants should be documented and shared with all team members and the community.

Source; World Health Organization 2012. Water Safety Planning for Small Community Water Supplies Step-by-step risk management guidance for drinking-water supplies in small communities.

Compiled by Dr. Shilanthi Seneviratne

Registrar

Epidemiology unit /Ministry of Health/ Sri Lanka

Page 2 to be continued ...

Table 1: Selected notifiable diseases reported by Medical Officers of Health 02nd-08th Sep 2017 (36thWeek)

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WRCD	*	22	9	-	12	12	22	17	6	6	42	56	12	13	œ	23	33	19	유	6	7	4	œ	56	10	10	12	15	
ania-	В	П	2	1	11	72	0	1	287	111	0	m	0	6	П	П	3	10	117	3	187	66	12	16	20	6	0	606	
Leishmania- sis	<	0	0	0	0	0	0	0	47	2	0	0	0	0	0	0	0	П		0	7	7	0	1	3	0	0	62	
	В	23	25	106	30	51	36	53	19	9	31	6	0	7	Ŋ	23	32	19	61	38	22	12	158	22	135	28	23	1070	
Meningitis	4	П	0	С	0	1	0	1	0	0	0	0	0	0	0	0	0	1	m	0	3	0	9	9	2	1	3	31	
Chickenpox	В	283	219	418	184	39	262	319	154	186	157	m	14	25	16	147	163	114	411	119	321	176	296	74	239	224	122	4685	
	4	4	2	9	m	0	П	4	П	7	5	0	н	0		-21	Э	П	7	1	0	1	7	4	С	3	4	29	
	В	0	П	1	П	0	0	1	Н	П	0	0	0	0		↔	0	0	7	0	П	0	Н	-	0	0	0	13	
Human Rabies	∢	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Viral Hepatitis	В	12	14	2	11	7	18	2	7	9	æ	7	0	7	П	4	4	17	17	1	13	8	52	17	62	12	7	208	
→ He	⋖	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	4	
Typhus Fever	В	2	10	9	96	2	144	52	52	20	402	14	7	6	4	0	1	12	24	11	15	7	87	66	24	09	0	1155	
	٨	0	0	0	н	0	П	2	9	0	П	Н	0	0	0	0	0	0	0	0	0	0	4	2	1	0	0	19	
Leptospirosi s	В	92	43	215	35	30	42	250	43	152	56	က	2	26	16	21	16	18	54	23	22	32	87	110	462	20	8	1933	
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Food Poisoning	В	31	8	51	10	6	23	16	70	2	25	н	н	9	2	70	1	20	4	6	12	9	D.	6	8	18	281	701	
	4	0	0	П	0	0	m	0	т	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	1	0	17	1
Enteric Fever	В	25	16	15	2	н	30	18	7	Э	31	11	7	22	4	13	П	2	m	2	Н	6	7	н	10	4	4	283	
Ent	4	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	1	0	0	2	
Encephaliti s	В	3	12	3	4	4	8	12	7	8	17	1	0	0	3	8	2	2	6	2	3	2	7	3	74	11	5	213	
Ence	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	н	0	0	0	0	0	1	1	1	9	l
Dysentery	В	45	25	45	09	17	70	45	19	30	218	17	Ω	17	6	95	20	21	61	36	31	13	78	49	123	31	73	1200	
	4	0	0	0	0	0	0	0	7	П	9	0	0	1		7	1	1	7	3	0	0	4	7	С	0	2	34	
Dengue Fever	В	30008	27968	9668	10214	2457	784	5271	2825	5574	3814	420	202	749	286	4562	260	4624	9325	4943	2423	1123	2983	2092	10021	8444	2128	153391	
	4	273	227	73	179	56	10	29	22	88	46	က	က	7	∺	32	11	16	161	68	19	4	09	77	167	198	56	1918	
RDHS Division		Colombo	Gampaha	Kalutara	Kandy	Matale	NuwaraEliya	Galle	Hambantota	Matara	Jaffna	Kilinochchi	Mannar	Vavuniya	Mullaitivu	Batticaloa	Ampara	Trincomalee	Kurunegala	Puttalam	Anuradhapur	Polonnaruwa	Badulla	Monaragala	Ratnapura	Kegalle	Kalmune	SRILANKA	

Source: esurveillance.epid.gov.lk

•T=Timeliness refers to returns received on or before 08** Septembert , 2017 Total number of reporting units 344 Number of reporting units data provided for the current week: 342 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

02^{nd-} 08th Sep 2017 (36thWeek)

Disease				No. of Ca	ases by	Provinc	:e		Number of cases during current	Number of cases during same	Total number of cases to date in	Total num- ber of cases to date in	Difference between the number of cases to date		
	w	С	S	N	E	NW	NC	U	Sab	week in 2017	week in 2016	2017	2016	in 2017 & 2016	
AFP*	00	01	00	00	00	00	00	00	00	01	01 00 48		50	- 4%	
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%	
Mumps	01	01	00	00	00	00	00	00	00	02	04	227	284	- 20.0%	
Measles	00	00	00	00	00	00	01	00	00	01	02	170	318	- 46.5%	
Rubella	00	00	00	00	00	00	00	00	00	00	00	06	07	- 14.2%	
CRS**	00	00	00	00	00	00	00	00	00	00	00	01	00	0%	
Tetanus	00	00	01	00	00	00	00	00	00	01	00	12	08	50%	
Neonatal Teta- nus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%	
Japanese En- cephalitis	00	00	00	00	00	00	00	00	00	00	00	21	13	61.5%	
Whooping Cough	00	00	00	00	00	00	00	00	01	01	01	13	50	- 74%	
Tuberculosis	62	05	07	03	25	20	09	10	18	157	189	5804	6641	-12.6%	

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.

RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna,

KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam,

AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS** =Congenital Rubella Syndrome

Dengue Prevention and Control Health Messages Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication

ON STATE SERVICE

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