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ENVIRONMENTAL HEALTH PROFILE AND ITS INFLUENCE ON THE PREVALENCE OF ENVIRONMENTALLY BASED DISEASES IN CIPANAS DISTRICT, CIANJUR, WEST JAVA, INDONESIA, IN 2022

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ABSTRACT

A quantitative descriptive study by using secondary cross-sectional data from environmental health activity reports carried out by the Cipanas Community Health Center during 2022 describe the environmental health situation and conditions in Cipanas sub-district, Cianjur regency, West Java, Indonesia, are in good condition. There are 91% drinking water facilities that meet health requirements, 89.07 residents can access them sustainably, all residents in Cipanas District use healthy latrines, and all villages have community-based total sanitation. Around 78.87% of public places meet health requirements, and of 120 food processing places, only around 72.58% meet sanitation hygiene requirements, There are 86.43% classified as healthy houses, around 90.43% of houses in Cipanas sub-district have waste water drainage channels, 84.19% of all rubbish dumps are closed rubbish bins. Even though of the 5.07% of drinking water facilities inspected, around 88.58% had low-medium risk, and of the 0.28% of water samples taken, still around 29.58% met health requirements. Meanwhile, there are 3 environmental-based diseases that are mostly suffered by residents in Cipanas, namely ISPA/Pneumonia, Diarrhea and Skin Diseases. By using The Fisher Exact Test, it turns out that only the conditions of food processing places have a significant relationship with the incidence of environmental-based diseases (p = 0.0036). Meanwhile, there were other factors that are likely to influence the incidence of environmental-based diseases in Cipanas, including behavior that was not examined in this study. further studies need to be carried out regarding environmental health, especially clean and healthy living behavior so that it can become useful input for planning and implementing health programs in Cipanas sub-district

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1. INTRODUCTION

Environmental-based diseases contribute to the largest number of deaths in the world, especially in developing countries. One of them is upper respiratory tract infections (ARI), in fact, ARI mortality has reached 4.25 million per year in the world, in addition to reducing life expectancy by 2.09 years for sufferers. In 2015, the United Nations Children's Fund (UNICEF) recorded that around 3 million deaths of children under five in the world were caused by poor environmental conditions such as acute respiratory infections (ARI), diarrhea, malaria, meningitis, tetanus, HIV and measles. Furthermore, UNICEF stated that the main causes of death for children under five in the world are ARI and diarrhea (Naghavi et al., 2015; Qazi et al., 2015; Smeets & Keita, 2020) .

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Meanwhile, the publication of Basic Health Research (Riskesdas) in 2013 revealed that the most infectious disease transmitted through the air was ARI (33.1 percent) and the most infectious disease transmitted through food and water was diarrhea (14.7 percent). In 2018 the prevalence was 4.4%, the highest in Indonesia, especially in the 1–4-year age group. Likewise, the incidence of diarrhea was recorded at 2.5% for all age groups, pneumonia for toddlers at 8.2%, and pulmonary TB for adults at 0.5% (Erni et al., 2020). Environmental factors are closely related to the number of incidents, including the sanitation of the residential environment and the use of water that does not meet health requirements, as well as the habit of washing hands with soap before eating and after defecating which has not yet become a culture (Bidkhori et al., 2019; Musadad, 2008).

Puskesmas, as the spearhead of sub-district health services and supervisors, carries out various steps to monitor and foster a healthy environment, in addition to carrying out health promotion related to hygiene and environmental sanitation in the community. Activities carried out include environmental health inspections and examinations, especially clean water facilities, latrines, waste water drainage channels, rubbish dumps, building healthy homes, as well as providing sanitation clinics at health centers (Alamsyah et al., 2021). Mapping as a result of environmental health monitoring will show the relationship between environmental situations and conditions and the incidence of environmental-based diseases in the work area of the health center (Zaman, 2021).

Cipanas as one of the sub-districts in Cianjur Regency is not free from environmental problems. As a health supervisor, of course the Cipanas Community Health Center carries out various environmental health monitoring and development activities in the Cipanas sub-district. However, there has been no evaluation of the results of these activities, especially when linked to environmental-based disease morbidity rates. Therefore, it is very necessary to study the results of environmental health monitoring and guidance carried out by the Cipanas Community Health Center in 2023.

1. Aim

Describe the environmental health profile and its relationship to the prevalence of environmental-based diseases in Cipanas District, Cianjur Regency, West Java, Indonesia.

2. Objectives

a. Describes the presentation of drinking water facilities that are monitored
b. Describes the number of families who have access to healthy toilets
c. Describes the number of villages that implement community-based total sanitation
d. Describes the percentage of public places that meet health requirements
e. Describes the percentage of food handled places that meet sanitation hygiene requirements
f. Describes the percentage of healthy homes
g. Describes the percentage of waste water disposal facilities (SPAL) and rubbish dump (TPS)
h. Describes the number of families who have sustainable access to drinking water according to health requirements
i. Describes the prevalence of environmental-based diseases in Cipanas sub-district
j. Describe the relationship between environmental health profiles and the prevalence of environmental-based diseases in Cipanas District

3. Benefit

The benefit of carrying out this study is as a consideration in improving the quality of environmental health supervision and guidance by the Cipanas Community Health Center in its working area. The results of this study can also be the basis for improving cross-program and cross-sector activities related to environmental health in Cipanas sub-district, such as health promotion, improving the provision of public facilities, etc. Another benefit is as a basis for further studies, either for in-depth analysis, or for other areas with different environmental conditions.

4. Problem Formulation

Based on the question of what the environmental health situation and conditions are, especially when related to the incidence of environmental-based diseases in Cipanas District, the problems posed in this study are formulated as follows:

"The relationship between environmental health profiles and the prevalence of environmental-based diseases in Cipanas District in 2022"

5. Theoretical Framework And Conceptual Framework

Based on the classical theory of H.L. Blum, a theoretical framework can be prepared as follows:

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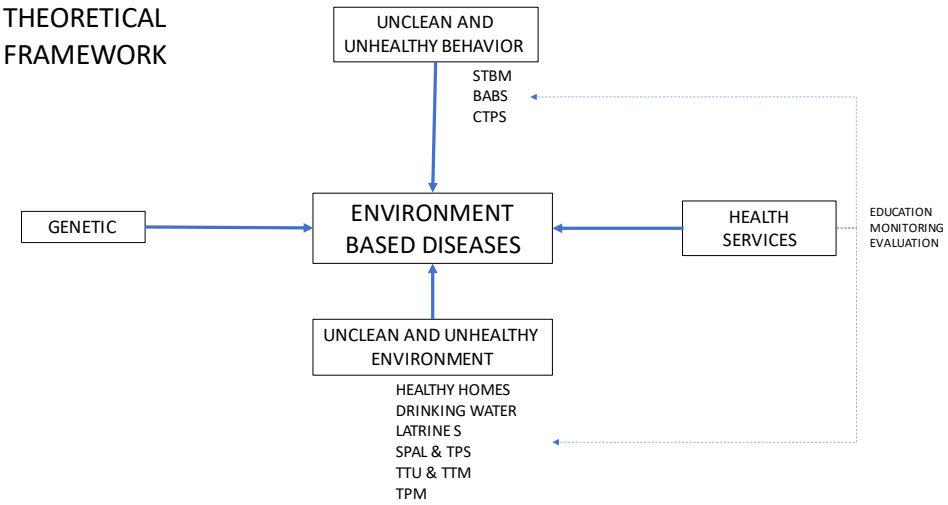

Figure 1. Theoretical Framework

Based on the theoretical framework above, a conceptual framework has been prepared according to the study to be carried out as follows:

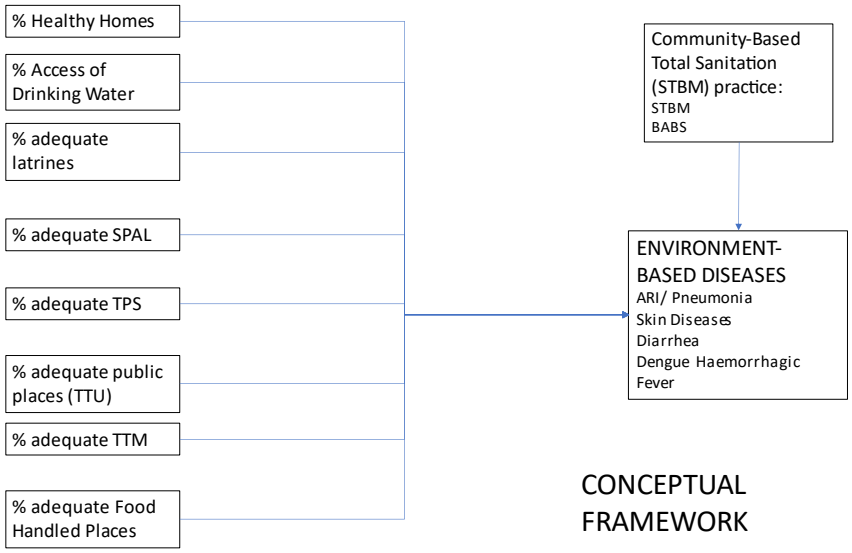

Figure 2. Conceptual Framework

Based on the conceptual framework above, it can be determined that for the analysis, the dependent variable is the incidence of environmental-based diseases in Cipanas sub-district, Cianjur district in 2022, while the independent variable that traces behavior and environmental conditions facilitated through Puskesmas environmental health activities is STBM practices. Healthy Homes, access to drinking water/clean water, latrines, waste water disposal facilities (SPAL) and garbage dump (TPS), public places (TTU – TTM), and food handled places (TPM).

2. METHODS

This study was a quantitative descriptive study by using secondary cross sectional data from environmental health activity reports carried out by the Cipanas Community Health Center during 2022. Data was collected and summarized for each dependent variable, while for cases of environmentally based diseases, data was taken from sanitation clinics of the health center.

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The data was then presented in the form of tables and graphs for each variable, then a simple analysis was carried out to determine whether there was a meaningful relationship between each independent variable and the incidence of related environmental-based diseases. All types of data were then processed into binomial data for further analysis. The analysis used was the Fisher Exact Test, or according to the pattern of the data being analyzed. Based on hypothesis 0 (H0) which was that there is no meaningful relationship between the independent and dependent variables being analyzed, with a confidence level (α) of 0.05, the results are determined which have a meaningful relationship to be compared with several related literature.

3. RESULT AND DISCUSSION

A. Drinking Water Facilities

Drinking water facilities are one of the things that are inspected and inspected during environmental health activities at community health centers. The results can be seen in the table below.

PERSENTASE SARANA AIR MINUM YANG DILAKUKAN PENGAWASAN
KABUPATEN/KOTA CIANJUR
TAHUN 2022

NO	PUSKESMAS	DESA	JUMLAH SARANA AIR MINUM	INSPEKSI KESEHATAN LINGKUNGAN (IKL)				PEMERIKSAAN			
				JUMLAH SARANA AIR MINUM DI IKL	%	JUMLAH SARANA AIR MINUM DGN RESIKO RENDAH+ SEDANG	%	JUMLAH SARANA AIR MINUM DIAMBIL SAMPEL	%	JUMLAH SARANA AIR MINUM MEMENUHI SYARAT	%
1	2	3	4	5	6	7	8	9	10	11	12
1	CIPANAS	CIPANAS	4.590	237	5,15%	213	89,87%	10	0,22%	3	30,00%
2		SINDANGJAYA	2.702	124	4,60%	113	91,20%	10	0,37%	4	40,00%
3		CIMACAN	4.594	353	7,69%	317	89,83%	10	0,22%	3	30,00%
4		SINDANGLAYA	4.181	145	3,47%	136	93,84%	10	0,24%	3	30,00%
5		PALASARI	3.556	122	3,43%	99	81,24%	10	0,28%	2	20,00%
6		CILOTO	2.305	185	8,02%	161	87,29%	10	0,43%	3	30,00%
7		BATULAWANG	3.023	99	3,27%	81	81,47%	11	0,36%	3	27,27%
JUMLAH (KAB/KOTA)			**24.951**	**1.265**	5,07%	**1.121**	88,58%	**71**	0,28%	**21**	29,58%

Table 1. Percentage of Drinking Water Facilities in Cipanas in 2022

In the table above, it can be seen that the results of environmental health inspections found that of the 5.07% of drinking water facilities inspected, around 88.58% had low-medium risk. From the results of the inspection, it was found that the most drinking water facilities that met the requirements were in Sindangjaya Village and of the 0.28% of samples taken, around 29.58% still met the health requirements.

B. Drinking Water Source

Apart from drinking water facilities, the condition of drinking water sources also greatly influences health status of people in Cipanas. The results of monitoring drinking water sources by the Cipanas community health center can be seen as follows.

Table 2. Drinking Water Sources in Cipanas in 2022

PENDUDUK DENGAN AKSES BERKELANJUTAN TERHADAP AIR MINUM BERKUALITAS (LAYAK) MENURUT KECAMATAN DAN PUSKESMAS
PUSKESMAS CIPANAS KECAMATAN CIPANAS
TAHUN 2022

NO	Desa	Jumlah KK	PENDUDUK	BUKAN JARINGAN PERPIPAAN: SUMUR GALI TERLINDUNG				SUMUR GALI DENGAN POMPA				SUMUR BOR DENGAN POMPA			
				JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	MEMENUHI SYARAT: JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	MEMENUHI SYARAT: JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	MEMENUHI SYARAT: JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA
1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	CIPANAS	4614	16652	204	816	208	776	2035	10255	1933	9230	134	670	123	492
2	SINDANGJAYA	3279	13218	24	96	23	92	237	1195	224	1076	243	1215	222	888
3	CIMACAN	4826	20890	32	128	29	125	323	1625	292	1463	455	2275	416	1664
4	SINDANGLAYA	4350	18291	282	1128	272	1082	2816	14088	2435	12679	192	960	178	712
5	PALASARI	5203	17654	131	524	122	502	1504	7543	1356	6789	490	2450	450	1801
6	CILOTO	2459	9945	9	36	8	39	94	470	87	423	45	225	42	168
7	BATULAWANG	2327	16045	108	432	100	420	1080	5441	974	4897	223	1115	213	852
Jumlah (Kec/Pkm)		27058	112695	790	3160	762	3036	8089	40617	7301	36557	1782	8910	1644	6577

NO	Desa	BUKAN JARINGAN PERPIPAAN: TERMINAL AIR				MATA AIR TERLINDUNG				PENAMPUNGAN AIR HUJAN				PERPIPAAN (PDAM,BPSPAM)				PENDUDUK DENGAN AKSES BERKELANJUTAN		ARANA MEMENUHI SYARA		
		JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	MEMENUHI SYARAT: JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	MEMENUHI SYARAT: JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	MEMENUHI SYARAT: JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	MEMENUHI SYARAT: JUMLAH SARANA	JUMLAH PENDUDUK PENGGUNA	JUMLAH	%	JUMLAH SARANA	JUMLAH SARANA MS	%
1	3	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
1	CIPANAS	0	0	0	0	0	0	0	0	0	0	0	0	1	5036	1	5036	15534	93,29	2374	2265	95,41
2	SINDANGJAYA	0	0	0	0	9	7535	9	6329	0	0	0	0	1	3945	1	3945	12330	93,28	514	479	93,19
3	CIMACAN	0	0	0	0	4	10274	2	8219	0	0	0	0	1	6108	1	6108	17579	84,15	815	740	90,80
4	SINDANGLAYA	0	0	0	0	0	0	0	0	0	0	0	0	1	2548	1	2548	17021	93,06	3291	2886	87,69
5	PALASARI	0	0	0	0	0	0	0	0	0	0	0	0	1	7199	1	7199	16291	92,28	2126	1929	90,73
6	CILOTO	0	0	0	0	8	8240	5	6590	0	0	0	0	1	856	1	856	8076	81,21	157	143	91,08
7	BATULAWANG	0	0	0	0	5	4994	2	3915	0	0	0	0	1	3462	1	3462	13546	84,43	1417	1290	91,04
Jumlah (Kec/Pkm)		0	0	0	0	26	31043	18	25053	0	0	0	0	7	29154	7	29154	100377	89,07	10694	9732	91,00

From the table above, it shows that of the 91% of drinking water facilities that meet health requirements, 89.07 residents can access them sustainably. Most residents use PDAM water, others use other protected water sources, and no residents in Cipanas use rainwater and water terminals.

C. Adequate Latrines

Specifically for healthy latrines in Cipanas District, you can see the results of the puskesmas inspection below.

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Table 3. Number of Healthy Latrines in Cipanas in 2022

JUMLAH KK DENGAN AKSES TERHADAP FASILITAS SANITASI YANG LAYAK (JAMBAN SEHAT) MENURUT KECAMATAN, DAN PUSKESMAS
KABUPATEN/KOTA CIANJUR
TAHUN 2022

NO	PUSKESMAS	DESA	JUMLAH KK	SHARING/KOMUNAL		JAMBAN SEHAT SEMI PERMANEN (JSSP)		JAMBAN SEHAT PERMANEN (JSP)		KELUARGA DENGAN AKSES TERHADAP FASILITAS SANITASI YANG LAYAK (JAMBAN SEHAT)	
				JUMLAH SARANA	JUMLAH KK PENGGUNA	JUMLAH SARANA	JUMLAH KK PENGGUNA	JUMLAH SARANA	JUMLAH KK PENGGUNA	JUMLAH	%
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1	CIPANAS	CIPANAS	3.627	561	1926	130	130	1472	1571	3.627	100,0
2		SINDANGJAYA	3.708	228	1098	211	211	2300	2399	3.708	100,0
3		CIMACAN	4.845	400	1380	283	283	3083	3182	4.845	100,0
4		SINDANGLAYA	4.433	36	2393	100	307	1634	1733	4.433	100,0
5		PALASARI	4.274	485	1106	430	430	2639	2738	4.274	100,0
6		CILOTO	2.481	77	1.040	26	26	1.316	1.415	2.481	100,0
7		BATULAWANG	3.727	804	1.600	358	358	1.670	1.769	3.727	100,0
JUMLAH (KAB/KOTA)			**27.095**	**2.591**	**10.543**	**1.538**	**1.745**	**14.114**	**14.807**	**27.095**	**100,00**

From the table above, it can be determined that all residents in Cipanas District use adequate latrines, whether in the form of communal latrines (14.20%), semi-permanent (8.43%), or permanent (77.37%).

D. Community Based Total Sanitation (Stbm)

In all villages there is total community-based sanitation in Cipanas sub-district as can be seen in the following table.

Table 4. Community based Total Sanitation in Cipanas in 2022

DESA YANG MELAKSANAKAN SANITASI TOTAL BERBASIS MASYARAKAT
PUSKESMAS CIPANAS KECAMATAN CIPANAS
TAHUN 2022

NO	Puskesmas	Desa	Jumlah Desa	SANITASI TOTAL BERBASIS MASYARAKAT (STBM)					
				DESA MELAKSANAKAN STBM		DESA STOP BABS (SBS)		DESA STBM	
				JUMLAH	%	JUMLAH	%	JUMLAH	%
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	CIPANAS	CIPANAS	1	1	100,00	1	100,00	0	100,00
		SINDANGJAYA	1	1	100,00	1	100,00	0	100,00
		CIMACAN	1	1	100,00	1	100,00	0	100,00
		SINDANGLAYA	1	1	100,00	1	100,00	0	100,00
		PALASARI	1	1	100,00	1	100,00	0	100,00
		CILOTO	1	1	100,00	1	100,00	0	100,00
		BATULAWANG	1	1	100,00	1	100,00	0	100,00
JUMLAH (Kec/Puskesmas)			7	7	100,00	7	100,00	0	100,00

E. Public Places (Ttu)

Based on environmental health checks of public places in the Cipanas sub-district area, the following results were obtained.

Table 5. Percentage of public places that meet health requirements in Cipanas in 2022

PERSENTASE TEMPAT-TEMPAT UMUM MEMENUHI SYARAT KESEHATAN MENURUT KECAMATAN DAN PUSKESMAS
PUSKESMAS CIPANAS KECAMATAN CIPANAS
TAHUN 2022

NO	KECAMATAN	PUSKESMAS	TEMPAT-TEMPAT UMUM																							
			YANG ADA								MEMENUHI SYARAT KESEHATAN															
			SARANA PENDIDIKAN			SARANA KESEHATAN		TEMPAT IBADAH	PASAR	JUMLAH TTU	SARANA PENDIDIKAN						SARANA KESEHATAN				TEMPAT IBADAH		PASAR		TEMPAT-TEMPAT UMUM	
											SD		SLTP		SLTA		PUSKESMAS		RUMAH SAKIT UMUM							
			SD	SLTP	SLTA	PUSKESMAS	RUMAH SAKIT UMUM				JUMLAH	%	JUMLAH	%	JUMLAH	%	JUMLAH	%	JUMLAH	%	JUMLAH	%	JUMLAH	%	JUMLAH	%
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*25*	*26*	*27*
1	CIPANAS	CIPANAS	10	4	4	1	0	32	1	52	8	80,00	3	75,00	2	50,00	1	100,00	0	0,00	28	87,50	1	100,00	43	82,69
		SINDANGJAYA	5	2	1	0	0	30	0	38	4	80,00	1	50,00	1	100,00	0	0,00	0	0,00	26	86,67	0	0,00	32	84,21
		CIMACAN	7	2	2	0	1	43	1	56	6	85,71	1	50,00	2	100,00	0	0,00	1	100,00	28	65,12	1	100,00	39	69,64
		SINDANGLAYA	9	3	3	0	0	39	0	54	7	77,78	2	66,67	2	66,67	0	0,00	0	0,00	33	84,62	0	0,00	44	81,48
		PALASARI	6	2	0	0	0	36	0	44	4	66,67	2	100,00	0	#DIV/0!	0	0,00	0	0,00	26	72,22	0	0,00	32	72,73
		CILOTO	4	1	0	0	0	22	0	27	2	50,00	2	200,00	0	#DIV/0!	0	0,00	0	0,00	22	100,00	0	0,00	26	96,30
		BATULAWANG	7	4	0	0	0	31	0	42	4	57,14	3	75,00	0	#DIV/0!	0	0,00	0	0,00	29	93,55	0	0,00	36	85,71
Jumlah (Kec/Pkm)			48	18	10	1	1	233	2	313	35	72,92	14	77,78	7	70,00	1	100,00	1	100,00	192	82,40	0	0,00	250	79,87

The table above shows that of around 250 public places in Cipanas sub-district, only around 78.87% meet health requirements. The lowest, namely around 69.64%, was in Cimacan, while the highest, namely around 96.30%, was in Ciloto village.

F. Food Handled Places (Tpm)

As a tourist area, Cipanas sub-district has many food processing places. The results of the environmental health inspection carried out at the food management site by the Cipanas health center can be seen as follows.

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Table 6. Sanitary hygiene status of food processing places in Cipanas in 2022

TEMPAT PENGELOLAAN MAKANAN (TPM) MENURUT STATUS HIGIENE SANITASI
PUSKESMAS CIPANAS KECAMATAN CIPANAS
TAHUN 2022

NO	Puskesmas	Desa	JUMLAH TPM	TPM MEMENUHI SYARAT HIGIENE SANITASI						TPM TIDAK MEMENUHI SYARAT HIGIENE SANITASI					
				JASA BOGA	RUMAH MAKAN/ RESTORAN	DEPOT AIR MINUM (DAM)	MAKANAN JAJANAN	TOTAL	%	JASA BOGA	RUMAH MAKAN/ RESTORAN	DEPOT AIR MINUM (DAM)	MAKANAN JAJANAN	TOTAL	%
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*
1	CIPANAS	CIPANAS	25	5	7	4	4	20	80,00	0	2	2	1	5	20,00
		SINDANGJAYA	16	3	4	3	1	11	68,75	2	2	0	1	5	31,25
		CIMACAN	23	5	6	3	3	17	73,91	2	2	2	0	6	26,09
		SINDANGLAYA	17	2	4	4	2	12	70,59	1	1	2	1	5	29,41
		PALASARI	16	2	3	3	3	11	68,75	1	1	1	2	5	31,25
		CILOTO	18	3	8	1	1	13	72,22	2	1	1	1	5	27,78
		BATULAWANG	9	1	2	1	2	6	66,67	1	1	1	0	3	33,33
JUMLAH (Kec/Puskesmas)			124	21	34	19	16	90	72,58	9	10	9	6	34	27,42

From the table above it can be seen that of the 120 food processing places, only around 72.58% meet the hygiene and sanitation requirements, where the highest is in Cipanas Village, namely around 80%, and the lowest is in Batulawang Village, namely around 66.67%.

G. Healthy Homes

The results of environmental health inspections related to healthy homes in Cipanas sub-district can be seen in the table below.

Table 7. Percentage of Healthy Homes in Cipanas in 2022

PERSENTASE RUMAH SEHAT MENURUT KECAMATAN DAN PUSKESMAS
PUSKESMAS CIPANAS KECAMATAN CIPANAS
TAHUN 2022

NO	Puskesmas	Desa	JUMLAH SELURUH RUMAH	2021			2022
				RUMAH MEMENUHI SYARAT (RUMAH SEHAT)		JUMLAH RUMAH YANG BELUM MEMENUHI SYARAT	RUMAH DIBINA
				JUMLAH	%		JUMLAH
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	CIPANAS	CIPANAS	4590	3868	84,27	722	237
		SINDANGJAYA	2702	2333	86,34	369	124
		CIMACAN	4594	4048	88,11	546	353
		SINDANGLAYA	4181	3516	84,09	665	145
		PALASARI	3556	2988	84,03	568	122
		CILOTO	2305	2291	99,39	14	185
		BATULAWANG	3023	2517	83,26	506	99
JUMLAH (Kec/Pkm)			24951	21566	86,43	3390	1265

The table above shows that of the 24,951 houses recorded, around 86.43% were classified as healthy houses, and most of them were in Ciloto village, namely around 99.39%. Around 1265 houses still do not meet health requirements, only around 1265 houses have been built by the Cipanas health center.

H. Waste Water Disposal Facilities (Spal) And Rubbish Dump (TPS)

The situation and condition of waste water drainage facilities and rubbish dumps in Cipanas sub-district can be seen in the following table.

Table 8. Percentage of Closed SPALs in Cipanas in 2022

PERSENTASE SPAL MENURUT KECAMATAN DAN PUSKESMAS CIPANAS
KABUPATEN CIANJUR
TAHUN 2022

NO	DESA	JUMLAH SELURUH RUMAH	MEMPUNYAI SPAL		MEMPUNYAI TPS TERTUTUP	
			JUMLAH	%	JUMLAH	%
1	CIPANAS	4.590	3.753	81,76%	3.749	81,68%
2	SINDANGJAYA	2.702	1.988	73,58%	2.284	84,53%
3	CIMACAN	4.594	3.973	86,48%	3.840	83,59%
4	SINDANGLAYA	4.181	4.096	97,97%	3.468	82,95%
5	PALASARI	3.556	3.378	94,99%	2.962	83,30%
6	CILOTO	2.305	2.555	110,85%	2.200	95,44%
7	BATULAWANG	3.023	2.820	93,28%	2.504	82,83%
Total Puskesmas		**24.951**	**22.563**	90,43%	**21.007**	84,19%

From the table above, it can be seen that around 90.43% of houses in Cipanas sub-district have waste water drainage channels, where Sindangjaya village has the lowest coverage, namely around 73.58%, while Ciloto village has reached 100%. Specifically for closed rubbish dumps, Cipanas sub-district has only reached 84.19% of all rubbish dumps, where Ciloto village has the highest closed rubbish bins at around 95.44%.

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I. Sanitation Clinic

Sanitation clinic activities carried out by the Cipanas Community Health Center identified the incidence of environmental-based diseases suffered in the Cipanas sub-district area during 2022 as follows.

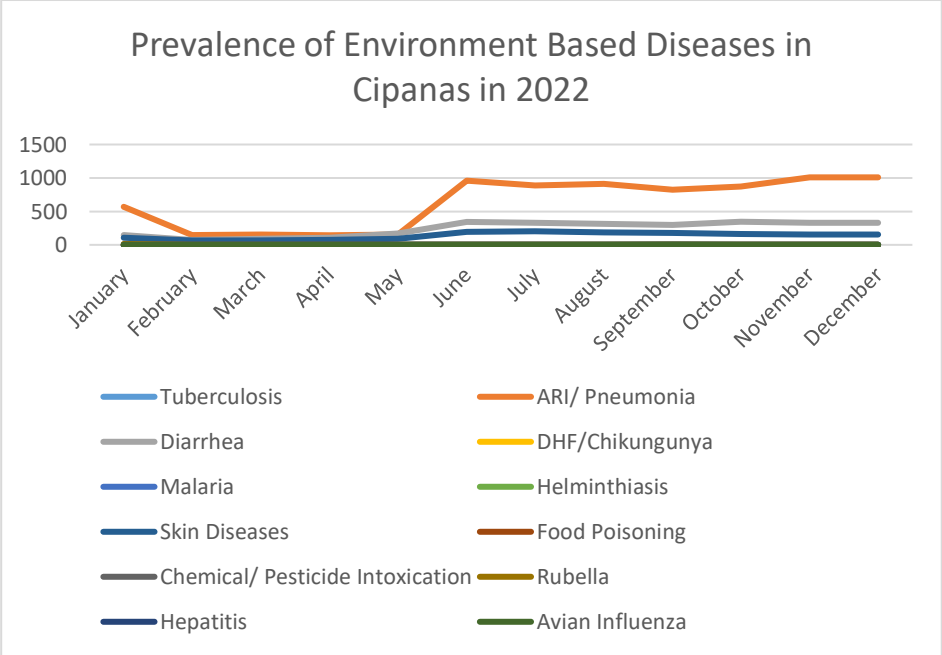

Figure 3. Prevalence of environment-based diseases in Cipanas in 2022

From the table above, it can be seen that there were 3 environmental-based diseases that are mostly suffered by residents in Cipanas, namely ARI/Pneumonia, Diarrhea, and Skin Diseases. These diseases could be suspected to be related to environmental conditions such as the provision of clean water, latrines, SPAL/TPS, food management, healthy homes, etc. This is in accordance with the results of research conducted by B. Williams et al. which shows ARI as the most common environmental-based disease suffered in the world (Williams et al., 2002).

J. Relationship Of Environmental Health Conditions With Environmental-Based Diseases

By using the Fisher Exact Test on environmental health conditions, in the form of the results of environmental health examinations by the Cipanas community health center, on the number of recorded cases of environmental-based diseases, the following results were obtained.

Table 9. Statistical test results related to environmental health conditions and environmental-based diseases in Cipanas

	Environment-Based Diseases	Drinking Water Facilities	SPAL	TPS	Healthy Homes	TPM	TTU	IKL	Drinking Water Inspection
Total	12230	10694	24951	24951	24951	124	313	1265	71
in condition	275	9732	22563	21007	21566	90	250	1121	21
Fisher T		0,102235	0,251025	0,405732	0,351316	0,003621	0,00671	0,015336	0,005325

Based on $p < 0.05$ to reject H0, there are environmental health conditions that have a significant relationship with the incidence of environmental-based diseases in Cipanas sub-district, namely food processing places ($p = 0.0036$). Meanwhile, other variables did not show a significant relationship to the incidence of environmental-based diseases in Cipanas. These results are different from similar studies which show a significant relationship between the environmental health profile in an area and the incidence of environmental-based diseases in the community (Ahyanti, 2020; Mustari, 2021; Sufiliana, 2020). Several other studies show that community behavior greatly determines the high and low incidence of environmental-based diseases in an area, in addition to the environmental health situation and conditions (Butarbutar, 2018; Gunawan et al., 2022; Raksanagara & Raksanagara, 2016; Rofifah et al., 2019).

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Another factor that needs to be studied further is malnutrition as the main factor in the prevalence of several environmental-based diseases such as diarrhea and ARI (Caulfield et al., 2004).

K. Limitation Of The Study

This study was carried out descriptively on environmental health activity report data by the Cipanas Community Health Center, without being supplemented by other health activity reports that may be related to environmental-based diseases. The existence of other important factors that influence the occurrence of environmental-based diseases in society, namely clean and healthy living behavior, was not studied carefully, because it was not included in the environmental health activity report, as a data source in this study.

4. CONCLUSION

Basically, the environmental health situation and conditions in Cipanas sub-district are in good condition. There are 91% drinking water facilities that meet health requirements, 89.07 residents can access them sustainably, all residents in Cipanas District use adequate latrines, whether in the form of communal latrines (14.20%), semi-permanent (8.43%), or permanent (77.37%), all villages have community-based total sanitation, around 78.87% of public places meet health requirements, of 120 food processing places, only around 72.58% meet sanitation hygiene requirements, There are 86.43% classified as healthy houses, around 90.43% of houses in Cipanas sub-district have waste water drainage channels, 84.19% of all rubbish dumps are closed rubbish bins. Even though of the 5.07% of drinking water facilities inspected, around 88.58% had low-medium risk, and of the 0.28% of water samples taken, still around 29.58% met health requirements. Meanwhile, there are 3 environmental-based diseases that are mostly suffered by residents in Cipanas, namely ARI/Pneumonia, Diarrhea and Skin Diseases. From the analysis results, it turns out that only the conditions of food processing places have a significant relationship with the incidence of environmental-based diseases ($p = 0.0036$). However, there are other factors that are likely to influence the incidence of environmental-based diseases in Cipanas, including behavior that was not examined in this study.

4. RECOMMENDATION

There is a need to increase environmental health activities and programs that are integrated with behavior improvement programs in the Cipanas health center working area in order to reduce the prevalence of environmental-based diseases in the community. Apart from that, further studies need to be carried out regarding environmental health, especially clean and healthy living behavior so that it can become useful input for planning and implementing health programs in Cipanas sub-district.

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