Sexual Transmitted Diseases

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What are the consequence & complications of STD?

Infants infected at birth with blinding eye infections or pneumonia

Women suffering chronic abdominal pain or infertility

Men with infertility.

After the initial infection , STD as syphilis & AIDS ,kill infants & adults alike .

Indirectly ,STD, kill through spontaneous abortion , ectopic pregnancy, & cervical cancer.

Distribution of the STD by age

Most children below 14 years of age are free from infection other than for congenital syphilis , ophthalmia neonatorum & HIV-infection.

Between the ages of 14 & 19 years cases occur more commonly among females . This reflects the fact that the start of sexual activity is earlier for girls than for boys

The rate of sexual activity of risk tends to be highest in the 15 -30 age group , reducing in later ages. This is clearly reflected in the table for gonorrhoea , as it is for other STD

What social & economic factors may influence high- risk behavior?

1. Occupation prostitutes & their clients run the highest risk of becoming infected. STD also occur commonly among long distance truck drivers, uniformed service persons & migrate laborers .
2. War political instability & insecurity influence sexual behavior & the rates of STD
3. Circumcision, the foreskin in uncircumcised males may increase the risk of AIDS
4. Gender STD are primarily transmitted to women through vaginal intercourse . It is increased for women who have poor general health & suffer from genital legions, inflammation secretion.

5- Age genital immaturity facilitate transmission during sexual intercourse. Young women are specially at risk in cultures where they marry or become sexually active during their early teenage years.

6-In addition , young people tend to practice risky sexual behavior , so being most at risk of STD

Biological & social factors that influence transmission

Having more than one sexual partner

Change sex partners often

Having sex with casual partners

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Sexual practices as anal sex

Social factors

- Failure to follow safe sex measures, as using condoms .
- Delay in getting STD treatment
- Failure to bring in sexual partners for treatment
- Not taking the full prescribed treatment for STD.

both men & women may suffer from a symptomatic STD but women more so than men ,

- 70 % of women & 30% of men infected with chlamydia may be a symptomatic .

- 30% of women & 5% of men infected with gonorrhoea may also be asymptomatic

clinics offering treatment for STD may not be accessible to many of the population

many people with STD do not seek care,& in developing countries people are not routinely screened for STD when they seek other health care.

STD patients avoid the public sector clinics due to the following reasons:

The subject of sex is a taboo & a lot of stigma is attached to STD, hence many STD patients try to hide the occurrence of STD & avoid seeking treatment especially from the public sector, delay treatment, or take self – treatment

The public sector clinics are usually crowded and lack privacy & confidentiality .

There is usually an inadequate supply of drugs & condom which serves as disincentive to the patients for seeking care

A number of health care providers are moralistic & judgmental ?& their attitudes discourage the STD patients from seeking care.

Services in general may be more accessible to men than women , for example ,where men migrate to urban areas for employment

Sexually transmissible infections after produce no symptoms or only mild symptoms in women, so fewer women come forward for treatment and appear in statistics.

As we have discussed before , cultural constraints as shame might also prevent a proportion of women from attending for treatment

The recommended treatment for the syndromes

Syndrome	*Treat for*
Urethral discharge	Gonorrhea, Chlamydia
Vaginal discharge	gonorrhea ,chlamydia, vaginitis
Genital ulcer	Syphilis , Chancroid
Lower abdominal pain	Pelvic inflammatory disease
Scrotal swelling	Gonorrhea, Chlamydia
Inguinal bubo	Lymphogranuloma venerium
Neonatal conjunctivitis	First for Gonorrhea & if not cured ,then for chlamydia

Trichomoniasis

Samples distribution

Infection rate of Trichomoniasis by district in Palestine.

Palestine	No. examined	No. positive	% positive
West Bank	1207	164	13.6 %
Gaza	796	48	6.0 %
Total	2003	212	10.6 %

West Bank	No. examined	No. positive	% positive
Jerusalem	60	10	16.7 %
Jericho	55	7	12.7%
Bethlehem	110	11	10 %
Hebron	301	57	18.9 %
Tulkarem	101	11	10.9 %
Nablus	185	29	15.7 %
Qalqilia	53	7	13.2 %
Jenin	174	16	9.2 %
Salfeet	35	7	20 %
Ramallah	133	9	6.8 %
Total	1207	164	13.6 %

Gaza	No. examined	No. positive	% positive
North	151	11	7.3 %
Gaza	282	13	4.6 %
Mid Zone	115	6	5.2 %
Khanyounos	154	14	9.1 %
Rafah	94	4	4.3 %
Total	796	48	6.0 %

Infection rate of Trichomoniasis by Age distribution

Palestine

Age Distribution	No. examined	No. positive	% positive
15 -18	22**	5	22.7 %
19 – 25	416	54	13.0 %
26 - 30	461	51	11.1 %
31 – 35	424	39	9.2 %
36 – 45	532	52	9.8 %
➢46	86	5	5.8 %
Missing*	62	6	9.7 %
Total	2003	212	10.6 %

*Missing : information is not available in questionnaire
**insignificant value, (if Dominator -#examined-less than 30
or the Nominator -# positive less than 5

West Bank

Age Distribution	No. examined	No. positive	% positive
15 -18	22	5	22.7 %
19 – 25	261	41	15.7 %
26 - 30	255	35	13.7 %
31 – 35	259	31	12.0 %
36 – 45	307	43	14.0 %
➢46	59	4	6.8 %
Missing*	44	5	11.4 %
Total	1207	164	13.6 %

* Missing : information is not available in questionnaire

Gaza

Age Distribution	No. examined	No. positive	% positive
15 -18	0	0	0.0 %
19 – 25	155	13	8.4 %
26 - 30	206	16	7.8 %
31 – 35	165	8	4.8 %
36 – 45	225	9	4.0 %
➢46	27	3	3.7 %
Missing*	18	1	5.6 %
Total	796	48	6.0 %

* Missing : information is not available in questionnaire

Infection rate of Trichomoniasis by marital status

Palestine

Marital status	No. examined	No. positive	% positive
Married	1987	211	10.6 %
Divorced	6	0	0.0 %
widow	10	1	10.0 %
Total	2003	212	10.6 %

West Bank

Marital status	No. examined	No. positive	% positive
Married	1197	163	13.6 %
Divorced	3	0	0.0 %
widow	7	1	14.3 %
Total	1207	164	13.6 %

Gaza

Marital status	No. examined	No. positive	% positive
Married	790	48	6.1 %
Divorced	3	0	0.0 %
widow	3	0	0.0 %
Total	796	48	6.0 %

Infection rate of Trichomoniasis by women's education

Palestine

W. education	No. examined	No. positive	% positive
School	1771	196	11.1 %
University	231	16	6.9 %
Missing	1	0	0.0 %
Total	2003	212	10.6 %

West Bank

W. education	No. examined	No. positive	% positive
School	1084	150	13.8 %
University	123	14	11.4 %
Total	1207	164	13.6 %

Gaza

W. education	No. examined	No. positive	% positive
School	687	46	6.7 %
University	108	2	1.9 %
Missing	1	0	0.0 %
Total	796	48	6.0 %

Infection rate of Trichomoniasis according residency distribution

Palestine

District	No. examined	No. positive	% positive
Urban	1034	103	10.0 %
Rural	850	95	11.2 %
Camps	114	14	12.3 %
Missing*	5	0	0.0 %
Total	2003	212	10.6 %

* Missing : information is not available in questionnaire

West Bank

District	No. examined	No. positive	% positive
Urban	483	69	14.3 %
Rural	665	84	12.6 %
Camps	59	11	18.6 %
Total	1207	164	13.6 %

Gaza

District	No. examined	No. positive	% positive
Urban	551	34	6.2 %
Rural	185	11	6.0 %
Camps	55	3	5.5 %
Missing*	5	0	0.0 %
Total	796	48	6.0 %

* Missing : information is not available in questionnaire

Infection rate of Trichomoniasis by type of contraceptives

Palestine

Type	No. examined	No. positive	% positive
IUD	802	69	8.6 %
Pills	301	26	8.6 %
Injection	18	1	5.6 %
others	19	3	15.8 %
Missing*	863	113	13.1 %
Total	2003	212	10.6 %

* Missing : information is not available in questionnaire

West Bank

Type	No. examined	No. positive	% positive
IUD	458	53	11.6 %
Pills	130	12	9.2 %
Injection	7	1	14.3 %
others	18	2	11.1 %
Missing*	594	96	16.0 %
Total	1207	164	13.6 %

* Missing : information is not available in questionnaire

Gaza

Type	No. examined	No. positive	% positive
IUD	344	16	4.7 %
Pills	171	14	8.2 %
Injection	11	0	0.0 %
others	1	1	100 %
Missing*	269	17	6.3 %
Total	796	48	6.0 %

* Missing : information is not available in questionnaire

Infection rate of Trichomoniasis according to pH of vagina

Palestine

pH	No. examined	No. positive	% positive
1 – 3	62	5	8.1 %
4 – 6	1128	147	13.0 %
> 6	757	55	7.3 %
Missing*	56	5	8.9 %
Total	2003	212	10.6 %

* Missing : information is not available in questionnaire

West Bank

pH	No. examined	No. positive	% positive
1 – 3	53	5	9.4 %
4 – 6	762	131	17.2 %
> 6	363	23	6.3 %
Missing*	29	5	17.2 %
Total	2003	164	13.6 %

* Missing : information is not available in questionnaire

Gaza

pH	No. examined	No. positive	% positive
1 – 3	9	0	0.0 %
4 – 6	366	16	4.4 %
> 6	394	32	8.1 %
Missing*	27	0	0.0 %
Total	796	48	6.0 %

* Missing : information is not available in questionnaire

Infection rate of Trichomoniasis according to Vaginal discharge

Palestine

Discharge	No. examined	No. positive	% positive
Yes	1568	165	10.5 %
No	434	47	10.8 %
Missing*	1	0	0.0 %
Total	2003	212	10.6 %

* Missing : information is not available in questionnaire

West Bank

Discharge	No. examined	No. positive	% positive
Yes	990	130	13.1 %
No	217	34	15.7 %
Total	1207	164	13.6 %

Gaza

Discharge	No. examined	No. positive	% positive
Yes	578	35	6.1 %
No	217	13	6.0 %
Missing*	1	0	0.0 %
Total	796	48	6.0 %

* Missing : information is not available in questionnaire

Infection rate of Trichomoniasis according to Burning sensation

Palestine

Burning	No. examined	No. positive	% positive
Yes	737	88	11.9 %
No	1261	124	9.8 %
Missing*	5	0	0.0 %
Total	2003	212	10.6 %

* Missing : information is not available in questionnaire

West Bank

Burning	No. examined	No. positive	% positive
Yes	489	67	13.7 %
No	714	97	13.6 %
Missing*	4	0	0.0 %
Total	1207	164	13.6 %

* Missing : information is not available in questionnaire

Gaza

Burning	No. examined	No. positive	% positive
Yes	248	21	8.5 %
No	547	27	4.9 %
Missing*	1	0	0.0 %
Total	796	48	6.0 %

* Missing : information is not available in questionnaire

Candidiasis

Samples distribution

Infection rate of Candidiasis by district in Palestine

Palestine	No. examined	No. positive	% positive
West Bank	1207	178	14.7 %
Gaza	796	72	9.1 %
Total	2003	212	12.5 %

West Bank	No. examined	No. positive	% positive
Jerusalem	60	11	18.3 %
Jericho	55	14	25.5 %
Bethlehem	110	16	14.5 %
Hebron	301	37	12.3 %
Tulkarem	101	11	10.9 %
Nablus	185	33	17.8 %
Qalqilia	53	6	11.3 %
Jenin	174	13	7.5 %
Salfeet	35	11	31.4 %
Ramallah	133	26	19.5 %
Total	1207	178	14.7 %

Gaza	No. examined	No. positive	% positive
North	151	10	6.6 %
Gaza	282	28	9.9 %
Mid Zone	115	13	11.3 %
Khanyounos	154	12	7.8 %
Rafah	94	9	9.6 %
Total	796	72	9.1 %

Infection rate of Candidiasis by Age distribution

Palestine

Age Distribution	No. examined	No. positive	% positive
15 -18	22	4	18.0 %
19 – 25	416	59	14.2 %
26 - 30	461	50	10.8 %
31 – 35	424	50	11.8 %
36 – 45	532	67	11.5 %
➢46	86	11	12.8 %
Missing*	62	9	14.5 %
Total	2003	250	12.5 %

* Missing : information is not available in questionnaire

West Bank

Age Distribution	No. examined	No. positive	% positive
15 -18	22	4	18.2 %
19 – 25	261	46	17.6 %
26 - 30	255	30	11.8 %
31 – 35	259	40	15.4 %
36 – 45	307	42	13.7 %
➢46	59	8	13.6 %
Missing*	44	8	18.0 %
Total	1207	178	14.7 %

* Missing : information is not available in questionnaire

Gaza

Age Distribution	No. examined	No. positive	% positive
15 -18	0	0	0.0 %
19 – 25	155	13	8.4 %
26 - 30	206	20	9.7 %
31 – 35	165	10	6.1 %
36 – 45	225	25	11.1 %
➢46	27	3	11.1 %
Missing*	18	1	5.6 %
Total	796	48	9.1 %

* Missing : information is not available in questionnaire

Infection rate of Candidiasis by marital status

Palestine

Marital status	No. examined	No. positive	% positive
Married	1987	248	12.5 %
Divorced	6	1*	16.7 %
widow	10	1	10.0 %
Total	2003	250	12.5 %

•Insignificant No. when Dominator -# examined less than 30
Or Nominator -# positive less than 5

West Bank

Marital status	No. examined	No. positive	% positive
Married	1197	176	14.7 %
Divorced	3	1	33.3 %
widow	7	1	14.3 %
Total	1207	178	14.7 %

Gaza

Marital status	No. examined	No. positive	% positive
Married	790	72	9.1 %
Divorced	3	0	0.0 %
widow	3	0	0.0 %
Total	796	72	9.1 %

Infection rate of Candidiasis by women's education

Palestine

W. education	No. examined	No. positive	% positive
School	1771	220	12.4 %
University	231	30	13.0 %
Missing	1	0	0.0 %
Total	2003	250	12.5 %

West Bank

W. education	No. examined	No. positive	% positive
School	1084	163	15.0 %
University	123	15	12.2 %
Total	1207	178	14.7 %

Gaza

W. education	No. examined	No. positive	% positive
School	687	57	8.3 %
University	108	15	13.9 %
Missing	1	0	0.0 %
Total	796	72	9.1 %

Infection rate of Candidiasis according residency distribution

Palestine

District	No. examined	No. positive	% positive
Urban	1034	126	12.2 %
Rural	850	104	12.2 %
Camps	114	19	16.7 %
Missing*	5	1	20.0 %
Total	2003	250	12.5 %

* Missing : information is not available in questionnaire

West Bank

District	No. examined	No. positive	% positive
Urban	483	70	14.5 %
Rural	665	93	14.0 %
Camps	59	15	25.4 %
Total	1207	178	14.7 %

Gaza

District	No. examined	No. positive	% positive
Urban	551	56	10.2 %
Rural	185	11	6.0 %
Camps	55	4	7.2 %
Missing*	5	1	20.0 %
Total	796	72	9.1 %

* Missing : information is not available in questionnaire

Infection rate of Candidiasis by type of contraceptives

Palestine

Type	No. examined	No. positive	% positive
IUD	802	103	12.8 %
Pills	301	25	8.3 %
Injection	18	2	11.1 %
others	19	2	10.5 %
Missing*	863	118	13.7 %
Total	2003	250	12.5 %

* Missing : information is not available in questionnaire

West Bank

Type	No. examined	No. positive	% positive
IUD	458	69	15.1 %
Pills	130	12	9.2 %
Injection	7	1	14.3 %
others	18	2	11.1 %
Missing*	594	94	.0.0 %
Total	1207	178	14.7 %

* Missing : information is not available in questionnaire

Gaza

Type	No. examined	No. positive	% positive
IUD	344	34	9.9 %
Pills	171	13	7.6 %
Injection	11	1	9.1 %
others	1	0	0.0 %
Missing*	269	24	8.9 %
Total	796	72	9.1 %

* Missing : information is not available in questionnaire

Infection rate of Candidiasis according to pH of vagina

Palestine

pH	No. examined	No. positive	% positive
1 – 3	62	7	11.3 %
4 – 6	1128	163	14.5 %
> 6	757	72	9.5 %
Missing*	56	8	14.3 %
Total	2003	250	12.5 %

* Missing : information is not available in questionnaire

West Bank

pH	No. examined	No. positive	% positive
1 – 3	53	7	13.2 %
4 – 6	762	123	16.1 %
> 6	363	45	12.4 %
Missing*	29	3	10.3 %
Total	2003	178	14.7 %

* Missing : information is not available in questionnaire

Gaza

pH	No. examined	No. positive	% positive
1 – 3	9	0	0.0 %
4 – 6	366	40	10.9 %
> 6	394	27	6.9 %
Missing*	27	5	18.5%
Total	796	72	9.1 %

* Missing : information is not available in questionnaire

Infection rate of Candidiasis according to Vaginal discharge

Palestine

Discharge	No. examined	No. positive	% positive
Yes	1568	204	13.0 %
No	434	46	10.5 %
Missing*	1	0	0.0 %
Total	2003	250	12.5 %

* Missing : information is not available in questionnaire

West Bank

Discharge	No. examined	No. positive	% positive
Yes	990	150	15.2 %
No	217	28	12.9 %
Total	1207	178	14.7 %

Gaza

Discharge	No. examined	No. positive	% positive
Yes	578	54	9.3 %
No	217	18	8.3 %
Missing*	1	0	0.0 %
Total	796	72	9.0 %

* Missing : information is not available in questionnaire

Infection rate of Candidiasis according to Burning sensation

Palestine

Burning	No. examined	No. positive	% positive
Yes	737	123	16.7 %
No	1261	127	10.1 %
Missing*	5	0	0.0 %
Total	2003	250	12.5 %

* Missing : information is not available in questionnaire

West Bank

Burning	No. examined	No. positive	% positive
Yes	489	94	19.2 %
No	714	84	11.8 %
Missing*	4	0	0.0 %
Total	1207	178	14.7 %

* Missing : information is not available in questionnaire

Gaza

Burning	No. examined	No. positive	% positive
Yes	248	29	11.7 %
No	547	43	7.9 %
Missing*	1	0	0.0 %
Total	796	72	9.1 %

* Missing : information is not available in questionnaire

HBV, HCV, HSV , HIV , Syphilis Survey

The percentage of one infection or more according to the total number in Palestine

Infection	# of cases	%
T. Vaginalis	150	20.2 %
C.Albicans	217	29.2 %
Yeast	314	42.3 %
T.Vaginalis & Yeast	29	3.9 %
T.Vaginalis & Candida & Yeast	33	4.4 %
Total infected	743	100 %

Sample Distribution

District	Total	Governmental	UNRWA	NGOs & Private
Jerusalem	60	40	15	5
Jericho	55	35	15	5
Ramallah	135	70	35	30
Beithlehem	110	60	25	25
Hebron	180	100	30	50
South Hebron	120	70	30	20
Salfeet	40	30	5	5
Qalqilia	55	30	8	17
Nablus	185	100	55	30
Tulkarem	100	60	20	20
Jenin	130	70	30	30
Tobass	45	30	8	7
Total	1215	695	276	244

Positive samples

Test	No. Samples	Positive	% Positive	Equivocal	% Equi.
HBV	1215	28	2.3	0	0
BCV	1215	1	0.08	0	0
HSV	1215	5	0.4	4	0.3
HIV	1215	0	0	0	0
Syphilis	1215	0	0	0	0

Distribution of +ve HBV by District

District	Total	Positive	% Positive
Jerusalem	60	0	0
Jericho	55	1	1.8
Ramallah	135	1	0.7
Beithlehem	110	6	5.5
Hebron	180	4	2.2
South Hebron	120	5	4.2
Salfeet	40	0	0
Qalqilia	55	0	0
Nablus	185	5	2.7
Tulkarem	100	3	3
Jenin	130	0	0
Tobass	45	3	6.7
Total	1215	28	2.3

Distribution of +ve HBV by age

Age distribution	No. Examined	Positive	% Positive
15-18	75	1	1.3
19-25	254	5	1.9
26-30	302	8	2.6
31-35	256	6	2.3
36-40	174	5	2.9
41-45	91	2	2.2
>45	62	1	1.6
Total	1215	28	2.3

Distribution of +ve HBV by marital status

Marital Status	No. Examined	No. Positive	% Positive
Married	1179	27	2.3
Divorced	8	1	1.2
Widow	15	0	0
Single	13	0	0
Total	1215	28	2.3

Distribution of +ve HBV by education

W. Education	No. Examined	No. Positive	% Positive
Elementary	166	4	2.4
Preparatory	276	5	1.8
Secondary	472	12	2.5
University	299	7	2.3
Missing	2	0	0
Total	1215	28	2.3

Distribution of +ve HBV by residency

Area	No. Examined	No. Positive	% Positive
Urban	358	10	2.8
Rural	677	15	2.2
Camps	175	3	1.7
Missing	5	0	0
Total	1215	28	2.3

Distribution of +ve HBV by occupation

Women's work	No. Examined	No. Positive	% Positive
Housewife	1027	23	2.2
Employee	181	5	2.8
Others	2	0	0
Missing	2	0	0
Total	1215	28	2.3

Distribution of +ve HSV by District

District	Total	Positive	% Positive	Equivalent	% Equi.
Jerusalem	60	0	0	0	0
Jericho	55	0	0	0	0
Ramallah	135	1	0.7	0	0
Beithlehem	110	0	0	2	1.8
Hebron	180	0	0	0	0
S. Hebron	120	1	0.8	1	0.8
Salfeet	40	0	0	0	0
Qalqilia	55	1	2	0	0
Nablus	185	0	0	0	0
Tulkarem	100	2	2	0	0
Jenin	130	0	0	1	0.8
Tobass	45	0	0	0	0
Total	1215	5	0.4	4	0.3

Distribution of +ve HSV by age

Age distributon	No. Examined	Positive	% Positive	Equivocal	% equivocal
19-25	254	1	0.4	0	0
26-30	302	3	1.00	2	0.6
31-35	256	1	0.4	1	0.4
40-45	91	0	0	1	1.1
Total	1215	5	0.4	4	0.3

Distribution of +ve HSV by marital status

Marital Status	No. Examined	Positive	% Positive	Equivocal	% equivocal
Married	1179	5	0.4	4	0.3
Divorced	8	0	0	0	0
Widow	15	0	0	0	0
Single	13	0	0	0	0
Total	1215	5	0.4	4	0.3

Distribution of +ve HSV by education

W. education	No.Examined	Positive	% Positive	Equivocal	% equivocal
Elementary	166	0	0	2	1.2
Preparatory	276	0	0	1	0.3
Secondary	472	3	0.6	1	0.2
University	299	2	0.7	0	0
Missing	2	0	0	0	0
Total	1215	5	0.4	4	0.3

Distribution of +ve HSV by residency

District	No. Examined	Positive	% Positive	Equivocal	% equivocal
Urban	358	2	0.6	1	0.3
Rural	677	2	0.3	3	0.4
Camps	175	0	0	0	0
Missing	5	1	20	0	0
Total	1215	5	0.4	4	0.3

Distribution of +ve HSV by occupation

Women's work	No. Examined	Positive	% Positive	Equivocal	% Equivocal
Housewife	1027	3	0.3	4	0.4
Employee	181	2	1.1	0	0
Others	2	0	0	0	0
Missing	2	0	0	0	0
Total	1215	5	0.4	4	0.3

Recommendation

- Sexually transmitted diseases are a public health problem in Palestine, as the case in other countries in the region.
- Dealing with STDs and STIs should receive more attention by MOH and other health providers.
- The National committee for Prevention and Control of AIDS and STDs should be reactivated and supported.

- Condom promotion for preventive purposes should be adopted and implemented by all health providers.
- This survey should be disseminated to all health providers, including those in the private sector, in order to ensure their involvement with MOH in prevention and control.

- Health education program should be developed, carried out, and implemented by the National Health Education Committee.
- Medical and community awareness should be increased by all means.
- Adaptation and implementation of WHO guideline on STDs (etiological and Syndromic approach to diagnosis and treatment should be reinforced.

- Clinics and laboratotories should be provided with dugs needed for the treatment and prophylactic treatment, in addition to condoms for preventive purposes, as well as reagents needed for diagnosis.
- STDs surveillance system should be improved by promoting notification and reporting by all health providers

- Plans for surveys on other STDs are required in order to have a complete picture about STDs in Palestine, which can assist in as improved planning of prevention activities.
- Medical staff should receive training on diagnosis, treatment and counseling. Laboratory technicians and health workers should be included in the training programs.

THANK YOU