## RESULTS

The results of the study are presented in the follow.ing parts:

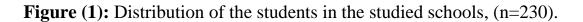
- <u>Part (I):</u> Assessing socio-demographic characteristics of the studied sample (table 1 & fig.1).
- **Part (II):** Assessing housing condition of the studied sample (table 2).
- **Part (III):** Assessing school environment of the studied sample (table 3).
- Part (IV): Assessing knowledge of the studied sample regarding influenza A/H1N1 (tables 4-7 & fig.2).
- <u>Part (V):</u> Assessing practices of the studied sample through asking questions regarding influenza A/H1N1 (tables 8-9).
- <u>Part (VI):</u> Assessing attitude of the studied sample regarding influenza A/H1N1 (tables 10 & fig.3).
- **Part (VII):** Relation between the studied sample knowledge, practices and attitudes and their socio-demographic characteristics (tables 12-14).
- <u>Part (VIII):</u> Relation between the studied sample knowledge, practices and attitudes & their housing condition (tables 15-17).
- **Part (IX):** Pearson correlation between the studied sample knowledge &their practices and attitudes (table 18).

**Table (1):** Distribution of the studied sample regarding their sociodemographic characteristics, (n=230).

Socio-demographic characteristics	No	%
Age / years :		
14-	21	9.1
15-	140	60.9
16-	64	27.8
17years	5	2.2
Mother education:		
Illiterate	15	6.5
Basic education	23	10
Secondary	١٠٦	46.1
University	٨٦	37.4
Mother occupation:		
Working	118	51.3
Not working	112	48.7
Father education:		
Illiterate	8	3.5
Basic education	22	9.6
Secondary	9 7	40
University	١٠٨	47
Father occupation:		
Employee	155	67.4
Free work	73	31.7
Not working	2	0.9
Family size:		
< 3	5	2.2
3 - 5	105	45.7
>5	120	52.1
Birth order:		
The oldest	73	31.8
The middle	95	41.3
The youngest	62	26.9
Family income:		
Enough and saving	٥٢	77.7
Enough	77	29.1
Insufficient	111	٤٨.٣

**Table (1)** shows that, 60.4% of the studied sample were aged 15 years old, 46.1% of their mother's education were secondary education and 51.3%

of them were working. While 47% of the student's fathers education were university education and 67.4 of them were employees. Also shows that, 52.1% of the studied sample had a big family size (more than 5 members), 41.3% were the middle in birth order, and 48.3% of them had insufficient family income.





Om Elr

Benha 3

Elshim

Figure (

This figure reveals that, number of students of the studied sample were 43.4% in Om Elmoamneen Secondary School, 34.7% in Benha Secondary School and 21.7% of them were in El Shimaa Secondary School.

**Table** ( $^{\checkmark}$ ): Distribution of the studied sample regarding their housing condition, (n=230).

Housing condition	No	%
Residence:		
Rural	23	10.0
Urban	207	90.0
Rooms number:		
One	10	4.3
Two	24	10.5
Three +	196	85.2
Present of Separated kitchen.	211	91.7
Permanent sanitary water supply	203	88.2
Source of sanitary water supply:		
Piped system	7.7	90.0
Deep wells	77	10.0
Ventilation:		
Good	189	82.2
Intermediate	39	17.0
Bad	2	0.8
Sanitary sewage disposal:	224	97.4
Kind of sewage disposal:		
Municipal one	175	71.4
Self building one	٣	1.3
Cesspit	٥٣	23.0
Canal drainage	١.	4.3

**Table** (\*) describes the home environment of the studied sample. 90% of the studied sample were living in urban area, 85.2% had a house with 3 rooms or more, separated kitchen for 91.7%, a permanent sanitary water supply for 88.2%, and the main source of this permanent sanitary water supply was the piped system for 90%, 82.2% of them had good ventilation ,while sanitary sewage disposal was present for 97.4% of them, and the main kind of this sanitary sewage disposal was the municipal one for 71.4% of them.

**Table** (\*): Distribution of the studied sample regarding their school environment, (n= 3 schools).

School Environment	No	%
No. of students in the class: < 30	2	66.7
30+	1	33.3
Sufficient class room area /students number.	3	100.0
Good class room ventilation.	3	100.0
Present sanitary water supply.	3	100.0
Sufficient playground area.	3	100.0
Sufficient lab area.	3	100.0
Existence of medical clinic.	3	100.0
Present of infected cases in the school:		0.0
Yes	0	0.0
No	3	100.0
Distribution of health education media of the disease.	3	100.0
Distribution of prevented supplies for the disease.	3	100.0
Type of prevented supplies distributed:		
Soap	1	33.3
Alcohol	0	0.0
Betadine	0	0.0
Mask	2	66.7

**Table (3)** describes the school environment of the studied sample. Two schools from the studied three schools included in the sample had students number less than 30 students in the class room. All the studied schools had sufficient class

room area, good class room ventilation, present of sanitary water supply, sufficient playground area, sufficient lab area, existence of medical clinic, no present of infected cases, distributed of health education media of the disease and supplies for disease prevention. As regard type of supplies distributed, 66.7% of the studied schools distributed mask and 33.3% of it distributed soap.

**Table (4):** Distribution of the studied sample knowledge about meaning of influenza A/H1N1 and its clinical manifestations, (n=230).

Knowledge	No	%
Meaning of influenza A/H1N1:		
Correct and complete	100	٦٧.٤
Correct and incomplete	65	۲۸.۳
Un known	١.	٤٠٣
Clinical manifestations in human:	*	
Fever	٤٠	17.3
Dry cough	22	9.5
Runny nose	12	5.2
Chest pain	7	3
Headache	27	11.7
Muscle pain	20	8.6
Vomiting and diarrhea	25	10.8
All of the above	185	80.4
Don't know	6	2.6

<sup>\*</sup> All items are not mutually exclusive.

**Table (4)** shows that, 67.4% of the studied sample having correct and complete knowledge about the meaning of influenza A/H1N1, while 80.4% of them were aware of all manifestations of the disease in humans.

**Table (5):** Distribution of the studied sample knowledge about mode of transmission and high risk group related to influenza A/H1N1, (n=230).

Knowledge	No	%
Mode of transmission:	*	
Inhalation of infected droplet	27	11.7
Contact with contaminated surfaces	35	15.2
Use equipment of infected person	37	16. 0
Direct contact with infected poultry	26	11.3
Eating of insufficiently cooked meat	8	3.4
All of the above	179	77.8
Don't know	8	3.4
High risk people:	*	
Children under two years	23	10.0
Schools age students	55	23.9
Pregnant women	28	12.1
Elderly people	10	4.3
Chronically ill people	8	3.4
People in crowded areas	37	16.0
Workers in poultry farms.	47	20.4
Veterinarians.	59	25.6
All of the above	147	63.9
Don't know	٧	3.0

**Note**: \*All items are not mutually exclusive.

**Table (5)** indicates that, 77.8% of the studied sample were aware of all mode of transmission related to influenza A/H1N1, 63.9% were aware of all high risk people for the disease, while 23.9% knew that schools age students are high risk group.

**Table (6):** Distribution of the studied sample knowledge about methods of diagnosis, methods of prevention and vaccine related H1N1 influenza, (n=230).

Knowledge	No	0/0
Methods of diagnosis:	*	
Observe signs and symptoms	77	33.5
Doing of nasopharyngeal swab	5	۲.۲
All of the above	126	54.8
Don't know	22	9.5
Methods of prevention:	*	
Continuous hand washing	5	2.2
Using tissue when cough and sneeze	5	2.2
Using mask in crowded area	3	1.3
Use personal equipment	6	2.6
All of the above	216	93.9
Don't know	6	2.6
Presence of vaccine against the disease.	206	19.0

**Note**: \*All items are not mutually exclusive.

**Table (6)** reveals that, 54.8% of the studied sample were aware of all methods of diagnosis, while collection of nasopharyngeal specimen mentioned by 2.2% of them. On the other hand 93.4% of them were aware of all methods of prevention. 89.5% of them were aware of presence of vaccine against the disease.

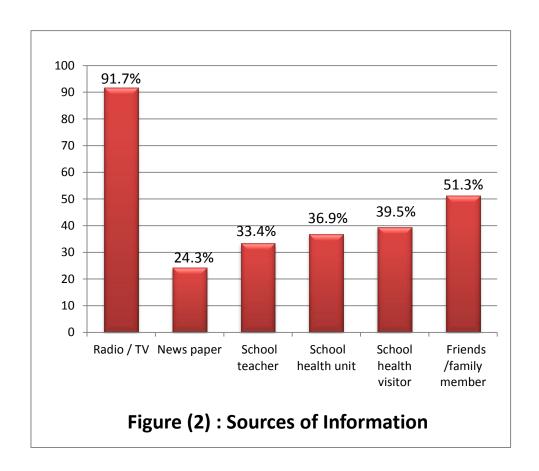
**Table (7):** Distribution of the studied sample knowledge about preventive role of the school health nurse related to influenza A/H1N1, (n=230).

Knowledge	No	%
Preventive role of the school health nurse:	*	
Give health education	37	16.0
Observe the students health regularly	13	5.6
Give vaccination against the disease	21	9.1
Notify about the infected cases in the school	29	12.6
All of the above	173	75.2
Don't know	8	3.4

**Note**: \*All items are not mutually exclusive.

**Table (7)** shows that, (75.2%) of the studied sample were aware of all the preventive role of the school health nurse related to influenza A/H1N1, while the minority (3.4%) of them didn't know.

**Figure (2):** Distribution of the studied sample sources of information about influenza A/H1N1.



**Figure (2)** shows that, the main sources of the studied sample' knowledge were radio/ TV for 91.7% of them, followed by friends or family member for 51.3% and school health visitors for 39.5%, and the least source of knowledge was newspapers for 24.3% of them.

**Table (8):** Distribution of practices through asking questions regarding to self protection from influenza A/H1N1 among the studied sample, (n= 230).

Practices through asking questions	Always		Always Sometimes Rarely		rely	
Tructices through usaming questions	No.	%	No. %		No.	%
Continuous hand washing with soap and water.	197	85.7	44	14.3	٠	0.0
Using of antiseptic solution during hand washing.	٦٦	28.7	1.4	46.5	٥٧	24.8
Wearing mask in overcrowded areas.	٧.	30.4	33	14.4	127	55.2
Covering of nose and mouth by tissue during cough & sneezing.	190	82.6	36	15.7	٤	1.7
Using the sleeve not hands in case of unavailability of tissue.	٣٦	15.7	79	٣٠.٠	170	08.7
Going to the doctor if any symptoms appears.	١٤٧	63.9	٦٦	28.7	١٧	7.4
Avoiding hugging or kissing.	٦٨	29.6	1.1	43.9	71	26.5
Avoiding touching nose, eye and mouth unless they are clean.	110	50.0	9 ٧	42.2	١٨	7.8
Avoiding infected cases.	١٦٣	70.9	٤٣	18.7	۲ ٤	10.4
Taking the vaccine.	۱۱۳	49.1	٥٢	22.6	70	28.3
Taking a lot of fluids, fresh vegetables and fruits.	140	76.1	٤٤	19.1	11	4.8

**Table (8)** reveals the studied sample practices through asking questions regarding self protection from influenza A/H1N1. 85.7% of the studied sample had always practice in form of continuous hand washing with soap and water, followed by covering of nose and mouth by tissue during cough & sneezing for 82.6% of them. taking a lot of fluids, fresh vegetables and fruits for 76.1% of them, avoiding infected cases for 70.7%, go to the doctor if any symptoms appears for 63.9%. While the studied sample had rarely practice in form of wearing mask in overcrowded areas for 55.2%, and using the sleeve not hands in case of unavailability of tissue in 54.3% of the studied sample.

**Table (9):**Number & percentage distribution of practices through asking questions in case of disease occurrence among the studied sample, (n=230).

Practices through asking questions		ays	Sometimes		Rarely	
Tractices through using questions	No.	%	No.	%	No.	%
Staying at home and don't go to the school.	١٥٨	68.7	٤٣	18.7	۲۹	12.6
Avoiding over crowded areas and tell my family if any symptoms appears.	199	86.5	77	11.8	٤	1.7
Going to the nearest health center.	150	63.0	0 {	23.5	٣١	13.5
Taking a lot of fluids.	١٧٦	76.5	٤٦	20.0	٨	3.5
Open the doors and windows.	197	85.7	7 £	10.4	٩	3.9

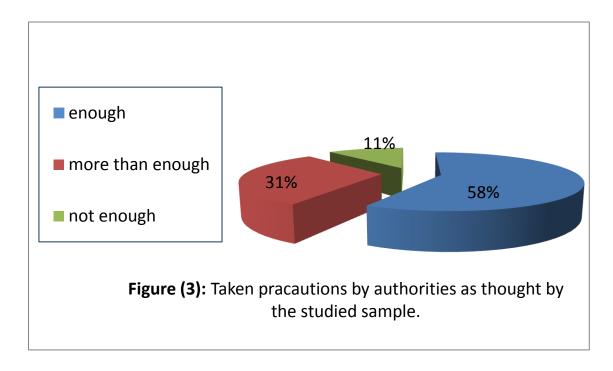
**Table (9)** shows the studied sample practices through asking questions in case of disease occurrence. The majority always avoid over crowded area and will tell their family if any symptoms appears for 86.5%, followed by open the doors and windows for 85.7%, taking a lot of fluid for 76.5%, stay at home and don't go to the school for 68.7% of them.

**Table (10):** Distribution of the studied sample attitudes regarding influenza A/H1N1, (n=230).

Attitudes		ways	Sometimes		Rarely	
	No.	%	No.	%	No.	%
Think that it is dangerous disease and deserve a lot of fear.	119	51.7	75	32.6	36	15.7
Fear from eating meat to avoid infection.	٤٦	20.0	97	٤٢.٢	87	37.8
Think that the necessary of pigs eradication.	١٧٤	75.7	٣٦	15.7	۲.	8.6
Follow up the disease news in Egypt and the world.	١٣٣	57.8	۸۰	34.8	١٧	7.4
Prefer to take vaccine if it is present.	97	42.2	٤٣	١٨.٧	90	39.1
Inform health authorities, If there is suspected case.	177	72.6	٤٨	20.9	10	6.5
Prefer to know the preventive measure for the disease.	١٨٩	82.2	٣٨	16.5	٣	1.3
Expect that the diseases will be pandemic.	١٠٨	47.0	٨٩	38.7	٣٣	14.3

**Table (10)** shows that, 82.2% of the studied sample always prefer to know the preventive measure for the disease. While 42.2% of them were sometimes fear from eating meat to avoid infection, and 39.1% were rarely prefers to take vaccine if it is present.

**Figure (3):** Distribution of taken precautions by authorities, as thought by the studied sample.



**Figure (3)** shows that, 58% of the studied sample thought that the precautions were taken by authorities are enough.

**Table (11):** Distribution of the total knowledge, practices and attitudes of the studied sample related to influenza A/H1N1, (n=230).

Knowledge, Practices & Attitudes	No.	%
Knowledge:		
Satisfactory	197	85.7
Unsatisfactory	33	14.3
Practices through asking questions:		
Good	139	60.4
Average	88	38.3
Poor	3	1.3
Attitudes:		
Positive	120	52.2
Indifferent	102	44.3
Negative	8	3.5

**Table (11)** reveals that, 85.7% of the studied sample had satisfactory knowledge, 60.4% had good practices, while 52.2% of them had positive attitude toward influenza A/H1N1.

**Table (12):** Relation between the studied group knowledge & their socio-demographic characteristic, (n=230).

Sacia damagraphia		Knowledge			Chi-s	square
Socio-demographic		Satisfactory		Unsatisfactory		
characteristics	` `	197)	`	=33)	$\mathbf{X}^2$	P-value
	No.	%	No.	%	Λ	1-value
Age:						
14-	17	8.6	4	12.1		
15-	117	59.4	23	69.6	*51.6	< 0.001
16-	58	29.5	6	18.1		
17	5	2.5	0	0.0		
<b>Mothers' education:</b>						
Illiterate	12	6.0	3	9.0		
Basic education	19	9.7	4	12.2	*162.7	< 0.001
Secondary	91	46.2	15	45.4		
University	75	38.1	11	33.4		
Fathers' education:						
Illiterate	8	4.0	0	0.0		
Basic education	19	9.7	3	9.0	*180.2	< 0.001
Secondary	82	41.7	10	30.4		
University	88	44.6	20	60.6		
Family size:						
< 3	5	2.5	0	0.0		
3 - 5	92	46.8	13	39.4	*118.7	< 0.001
>5	100	50.7	20	60.6		
Birth order:						
The oldest	65	33.0	8	24.2		
The middle	80	40.6	15	45.4	1.01	>0.05
The youngest	52	26.4	10	30.4		
Family income:						
Enough &saving	٤٤	77.7	8	24.2	34.5	< 0.001
Enough	59	30.0	8	24.2		
Insufficient	94	47.7	17	51.6		

<sup>\*</sup>Adjusted chi-square test

P < 0.001 (High statistical significant).

P > 0.05 (No statistical significant).

**Table (12)** shows that, 59.4% of the studied sample who had satisfactory knowledge about influenza A/H1N1 were aged 15 years, 46.2% of their mothers' education were secondary education, while 44.6% of their fathers' education were university education, 50.7% of the studied sample had a big family size (more than 5 members), 40.6% of them were the middle in birth order, and 47,7% had insufficiently family income.

**Table (13):** Relation between the studied sample practices through asking questions & their socio-demographic characteristics, (n=230).

	ctices T	hroug	*Chi-square					
Socio-demographic characteristics		Good (n = 139 )		$\mathbf{X}^2$	P- value			
	No.	%	No.	%	No.	%		
Age:								
14-	17	12.2	4	4.5	0	0.0		
15-	85	61.1	52	59.2	3	100.0	30.9	< 0.001
16-	33	23.8	31	35.2	0	0.0		
17	4	2.9	1	1.1	0	0.0		
<b>Mothers' education:</b>								
Illiterate	12	8.7	3	3.4	0	0.0		
Basic education	13	9.3	9	10.2	1	33.3	58.0	< 0.001
Secondary	71	51.0	35	39.8	0	0.0		
university	43	31.0	41	46.6	2	66.7		
<b>Fathers' education:</b>								
Illiterate	6	4.3	2	2.2	0	0.0		
Basic education	14	10.0	7	8.0	1	33.3	82.2	< 0.001
Secondary	64	46.0	28	31.8	0	0.0		
University	55	39.5	51	58.0	2	66.7		
Family size:								
< 3	3	2.1	2	2.2	0	0.0		
3 - 5	67	48.2	35	39.8	3	100.0	3.5	>0.05
>5	69	49.7	51	58.00	0	0.0		
Birth order:								
The oldest	41	29.5	31	35.2	1	33.3		
The middle	60	43.2	34	38.7	1	33.3	75.6	< 0.001
The youngest	38	27.3	23	26.1	1	33.3		
Family income:								
Enough and saving	69	49.7	21	23.9	0	0.0		
Enough	39	28.00	41	46.6	1	33.3	18.0	< 0.001
Insufficient	31	22.3	26	29.5	2	66.7		

<sup>\*</sup>Adjusted chi-square test

P < 0.001 (High statistical significant).

P > 0.05 (No statistical significant).

**Table (13)** demonstrates that, 61.1% of the studied sample who had good practices through asking questions about influenza A/H1N1 were aged 15 years, 51% of their mothers' education were secondary education, also 46% of their fathers' education were secondary education, 49.7% of the studied sample had a big family size ( more than 5 members). 43.7% of them were the middle in birth order, and 49,7% had enough and saving family income.

**Table (\4):** Relation between the studied group attitudes & their socio- demographic characteristics, (n=230).

Socio-demographic characteristics	Positive (n =120 )		Indifferent (n=102 )		Negative (n=8)		*Chi-square	
	No.	%	No.	%	No.	%	$X^2$	P-value
Age:								
14-	12	10.0	9	8.8	0	0.0		
15-	75	62.5	59	57.9	6	75.0	18.4	< 0.001
16-	30	25.0	32	31.4	2	25.0		
17	3	2.5	2	1.9	0	0.0		
Mothers' education:								
Illiterate	11	9.1	4	3.9	0	0.0		
Basic education	13	10.9	9	8.9	1	12.5	67.6	< 0.001
Secondary	61	50.9	44	43.1	1	12.5		
university	35	29.1	45	44.1	6	75.0		
Fathers' education:								
Illiterate	6	5.0	2	1.9	0	0.0		
Basic education	13	10.8	8	7.9	1	12.5	97.3	< 0.001
Secondary	51	42.5	40	39.2	1	12.5		
University	50	41.7	52	51	6	75.0		
Family size:								
< 3	3	2.5	2	2.0	0	0.0		
3 - 5	56	46.7	46	45.0	3	37.5	0.3	>0.05
>5	61	50.8	54	43.0	5	62.5		
Birth order:								
Oldest	35	29.1	37	36.3	1	12.5		
Middle	46	38.4	45	44.1	4	50.0	57.1	< 0.001
youngest	39	32.5	20	19.6	3	37.5		
Family income:								
Enough and saving	55	45.9	26	25.5	1	12.5		
Enough	40	33.3	23	22.5	4	50.0	6.3	< 0.05
Insufficient	25	20.8	53	52.0	3	37.5		

<sup>\*</sup>Adjusted chi-square test

P < 0.001 (High statistical significant ).

P < 0.05 (Statistical significant ).

 $P\,>0.05$  ( No statistical significant ).

**Table (14)** shows that, 62.5% of the studied sample who had positive attitude related to influenza A/H1N1 were aged 15 years, 50.9% of their mothers' education were secondary education, 42.5% of their fathers' education were secondary education, while 50.8% of them had a big family size (more than 5 members), (P > 0.05). 38.4% of them were the middle in birth order, and 45.9% had enough and saving family income, (P < 0.05).

**Table (15):** Relation between the studied sample knowledge & their housing condition, (n=230).

		know				
Housing condition	Satisfactory (n=197)			sfactory =33)	Chi-square	
	No.	%	No.	%	$\mathbf{X}^2$	P-value
Residence:						
Rural	17	8.7	6	18.1	2.2	>0.05
Urban	180	91.3	27	81.9		
No. of room:						
One	9	4.6	1	3.00		
Two	18	9.2	6	18.2	*176.5	< 0.001
Three +	170	86.2	26	78.8		
Separated kitchen:						
Yes	181	91.9	30	90.9	*200	< 0.001
No	16	8.1	3	9.1		
Water supply:						
Yes	196	99.5	33	100.0	*197	< 0.001
No	1	0.5	0	0.0		
Water source:						
Piped system	177	89.9	30	90.9	*168.2	< 0.001
Deep wells.	20	10.1	3	9.1		
Ventilation:						
Good	159	80.8	28	84.9		
Moderate	38	19.2	3	9.1	*144.6	< 0.001
Bad	0	0.0	2	6.0		
Sewage disposal:						
Yes	191	97.0	33	100.0	*197.0	< 0.001
No	6	3.0	0	0.0		

<sup>\*</sup>Adjusted chi-square test

P < 0.001 (High statistical significant). P > 0.05 (No statistical significant).

**Table (15)** shows that, 91.3% of the studied sample who had satisfactory knowledge about influenza A/H1N1 living in urban area, and 86.2% of them had a house with 3 rooms or more, while 91.9 % had separated kitchen, 99.5% had water supply, and the main source of this water was piped system for 89.9%, 80.8% had good ventilation, 97% of them had sewage disposal.

**Table ('6):** Relation between the studied sample practices through asking questions & their housing condition, (n=230).

	Practices Through Asking Questions								
II augin a	G	Good Average				ad	*Chi-square		
Housing	(n =	139)	(n=	(n=88 )		(n=3)			
	No.	<b>%</b>	No.	%	No.	%	$X^2$	p-value	
Residence:									
Rural	14	10.0	8	9.1	1	33.3	141.1	***<0.001	
Urban	125	90.0	80	90.9	2	66.7			
No. of rooms:									
One	4	2.9	6	6.8	0	0.0			
Two	17	12.2	6	6.8	1	33.3	25.5	***<0.001	
Three+	118	84.9	76	86.4	2	66.7			
Separated kitchen:									
Yes	133	95.7	80	90.9	2	66.7	228.0	***<0.001	
No	6	4.3	8	9.1	1	33.3			
Water supply:									
Yes	138	99.2	88	100.0	3	100.0	227.0	***<0.001	
No	1	0.8	0	0.0	0	0.0			
Water source:									
Piped system	127	91.4	77	87.5	3	100.0	216.0	***<0.001	
Deep wells.	12	8.7	11	12.5	0	0.0			
<b>Ventilation:</b>									
Good	113	81.3	73	82.9	3	100.0			
Moderate	25	17.9	14	16	0	0.0	208.0	***<0.001	
Bad	1	0.8	1	1.1	0	0.0			
Sewage disposal:									
Yes	137	98.4	84	95.5	3	100	227.0	***<0.001	
No	2	1.6	4	4.5	0	0.0			
Disposal type:									
Municipal	97	69.7	64	72.8	3	100.0			
Self limited	2	1.5	1	1.1	0	0.0	88.0	***<0.001	
Cesspit	31	22.3	22	25.0	0	0.0			
Canal	9	6.5	1	1.1	0	0.0			

<sup>\*</sup>Adjusted chi-square test

<sup>\*\*\*</sup> p < 0.001(high statistical significant).

**Table** (16) shows that, 90% of the studied sample who had good practices through asking questions about influenza A/H1N1 living in urban area, 84.9% of them had a house with 3 rooms or more, 95.7% had separated kitchen, 99.2% had water supply, and the main source of this water was piped system for 91.4%, 81.3% had good ventilation, 98.4% of them had sewage disposal, and the main source of this sewage disposal was municipal for 69.7%. (P<0.001).

Table (17): Relation between the studied sample attitudes & their housing condition, (n=230).

	Attitudes							*Chi-square		
Housing condition				Indifferent (n= 102 )		Negative (n=8)		p-value		
	No.	%	No.	%	No.	%		•		
Residence:										
Rural	15	12.5	7	6.9	1	12.5	107.4	< 0.001		
Urban	105	87.5	95	93.1	7	87.5				
No. of rooms:										
One	8	6.7	2	2.0	0	0.0				
Two	13	10.8	11	10.8	8	100.0	176.5	< 0.001		
Three+	99	82.5	89	87.2	0	0.0				
Separated kitchen:										
Yes	109	90.8	95	93.1	7	87.5	223.0	< 0.001		
No	11	9.2	7	6.9	1	12.5				
Water supply:										
Yes	119	99.2	102	100.0	8	100.0	222.0	< 0.001		
No	1	0.8	0	0.0	0	0.0				
Water source:										
Piped system	110	91.7	91	89.2	٦	75	205.0	< 0.001		
Deep wells	10	8.3	11	10.8	2	25				
Ventilation:										
Good	98	81.7	83	81.3	8	0.0				
Moderate	21	17.5	18	17.7	0	0.0	199.0	< 0.001		
Bad	1	0.8	1	10.0	0	0.0		_		
Disposal:								_		
Yes	117	97.5	99	97.0	8	0.0	222.0	< 0.001		
No	3	2.5	3	3.0	0	0.0				

\*Adjusted chi-square test P < 0.001 (High statistical significant).

**Table (17)** shows that, (87.5%) of the studied sample who had positive attitude related to influenza A/H1N1 living in urban area, (82.5%) of them had a house with 3 rooms or more, (90.8%) had separated kitchen, (99.2%) had water supply, and the main source of this water was piped system for (91.7%), (81.7%) had good ventilation, (97.5%) of them had sewage disposal. (P<0.001).

**Table (18):** Pearson correlation between the studied sample total knowledge and both practices and attitudes related to influenza A/ H1N1, (n=230).

	Knowledge				
Parameter	R	P			
Practices	0.08	< 0.001			
Attitudes	0.04	< 0.001			

P<0.001(High statistical significant).

**Table (18)** shows high statistically significant correlation between total knowledge and both practices and attitudes related to influenza A/H1N1 (P<0.001).