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PREVALENCE OF RESPIRATORY INFECTION AMONG POPULATION, A RETROSPECTIVE CROSS SECTIONAL STUDY IN IRAQ

***Dr. Israa Tareq Mahmood**

MBCHB. MOH. Baghdad Iraq.

***Corresponding Author: Dr. Israa Tareq Mahmood**
MBCHB. MOH. Baghdad Iraq.

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ABSTRACT

Background: In the world, respiratory tract infections are the leading cause of mortality causing almost 12% of all deaths. **Aim**: To identify the frequency of cases at the different ages during the study period in Iraq. **Method**: A retrospective cross sectional study was carried out at the Life Statistics Center of the Iraqi Ministry of Health within 3 months. During this period, the study samples were collected for 5 years, starting from 2014, 2015, 2016, 2017, and 2018. Data was entered to Excel sheet and the STATA software program was used to analyze this data and make tables and graphs. **Results:** Most cases (52.3%) were male more than female cases (47.7%). In 2014, the number of cases was higher 24.6%, followed by 2015 24.5% and the less number was in 2017 (15.6%). Also, the highest percentage of cases occurs in the age less than 14 years old. The peak of graphs was high in 2014, 2015 and low in 2016 and 2017. **Conclusion**: There is a highly relationship between the age groups by year at the p. value less than 0.05. And this might require more effort especially among age less than 14 years and elderly. By highlighting regions and populations with the highest burden, and the risk factors that could have the greatest effect, funders, policy makers, and programme.

KEYWORDS: Respiratory, Infection, Peak, Cross-sectional study.

INTRODUCTION

Respiratory disease causes an enormous health burden worldwide.[1] It is estimated that 235 million people suffer from asthma[2], and more than 65 million people suffer from moderate to severe obstructive pulmonary disease (COPD)[3], 200 million people have chronic obstructive pulmonary disease[4], 1- 6% of the adult population (over 100 million people) suffers from irregular breathing during sleep[5], and 7.8 million are severely affected with tuberculosis annually[6], and more than millions of people suffer from pulmonary infection[3] and above 50 million people struggle with occupational lung disease[7], It totals more than a billion people suffering from chronic respiratory disease.[8] Each year, 4 million people die prematurely from chronic respiratory disease[9], especially babies and toddlers are more vulnerable. Pneumonia is the largest killer of young children in the world.[10] Asthma is the most common chronic pain in the world.[2] Chronic obstructive pulmonary disease is a quarter of the leading cause of death around the world, and the numbers are increasing.[3] The most common deadly cancer in the world is Lung cancer, which kills more than 4.1 million people every year[11], and the numbers are increasing. An adequate political structure, the main obstacles to state development and are the root causes of poverty. Poor health poor nations and poverty causes poor health. Many of the causes of the burden of poor health are what are called "noncommunicable disease", which includes asthma, and chronic obstructive pulmonary disease and cancer. This study aimed to identify the frequency of cases at the different ages during the study period in Iraq.

METHODS

A retrospective cross sectional study was carried out at the Life Statistics Center of the Iraqi Ministry of Health within 3 months. During this period, the study samples were collected for 5 years, starting from 2014, 2015, 2016, 2017, 2018. Data was entered to Excel sheet and the STATA software program was used to analyze this data and make tables and graphs.

RESULTS

A total of 7421896, in table 1: show the male cases 3884982/7421896 (52.3%) were more than female cases 3536914/7421896(47.7%). In 2014, the number of cases was higher 24.6%, followed by 2015 24.5% and the less number was in 2017 (15.6%) [table2]. Also, the highest percentage of cases occurs in the age less than 14 years old. There is a highly relationship between the age groups by year at the p. value less than 0.05[table 2]. The peak of graphs was high in 2014, 2015 and low in 2016 and 2017[figure 1].

Table 1: Distribution of studied sample according to gender.

Year	Gender		Total
	Male	Female	
	Frequency %	Frequency %	Frequency %
2014	964377 24.8	862825 24.4	1827202 24.6
2015	945997 24.4	874558 24.7	1820555 24.5
2016	694002 17.9	628071 17.8	1322073 17.8
2017	604938 15.6	553753 15.7	1158691 15.6
2018	675668 17.4	617707 17.4	1293375 17.5
Total	3884982 100	3536914 100	7421896 100

Table 2: Distribution of studied samples according to age groups.

Year	Age groups			Total	P. value
	Less than 14	15 to 44	More than 45		
	Frequency %	Frequency %	Frequency %	Frequency %	
2014	894703 25.2	549241 24.2	383258 24.0	1827202 24.6	< 0.00001
2015	876535 24.7	542133 23.8	401887 25.2	1820555 24.5	
2016	625752 17.6	406292 17.9	290029 18.1	1322073 17.8	
2017	539033 15.2	372697 16.4	246961 15.5	1158691 15.6	
2018	615815 17.3	402901 17.7	274659 17.2	1293375 17.5	
Total	3551838 100	2273264 100	1596794 100	7421896 100	

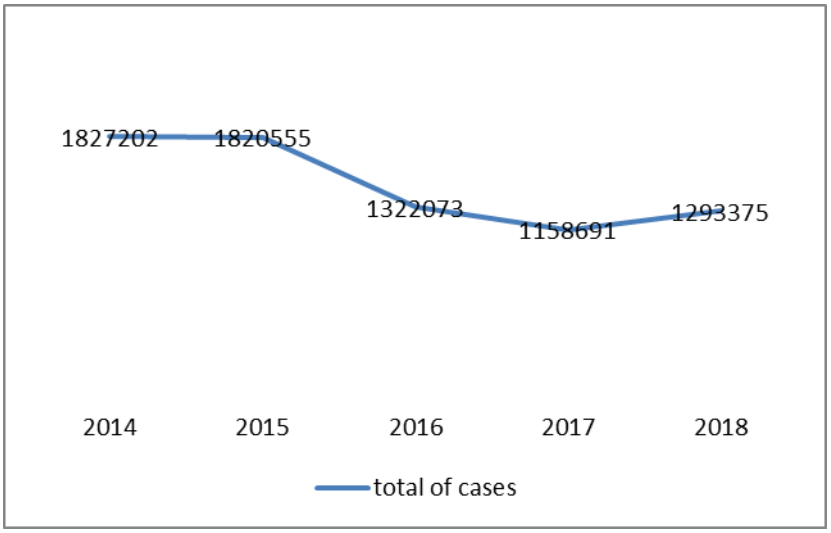

Figure 1: Distribution of studied sample by year and total of cases.

DISCUSSION

Respiratory infections are a leading cause of morbidity and mortality around the world.[12] In the present study we found the male cases (52.3%) were more than female cases (47.7%). A study in Bangladesh[9], the authors also, reported the male cases were more than female. Other studied in India, the authors reported the female cases are more susceptible to disease more than male cases.[13,14] This refers to different in style life of living, and also the male always; they are exposed to disease because of playing out the home. Although, we found in 2014, the number of cases was higher 24.6%, followed by 24.5%

in 2015 and the less number was in 2017 (15.6%). Other study in Ethiopia, the authors reported the disease was higher in 2015.[15] Another study in Africa, the investigators mentioned the disease was higher during 2018 up to 2019.[16,17] This is due to deterioration in the health system and the most of the supplies are not available such as treatment and vaccinations, in addition to the fact that most of mothers are suffering from the lack of health education and hygiene. Also, in this study we found the highest percentage of cases occurs in the age less than 14 years old. Others studied done it in India[14] and in Ethiopia[15], the investigators reported the children under 5 years are more susceptible to disease than other age groups. Also, the study done it in Cameroon[18], the authors reported the disease was higher among children more than other groups. A study in Yemen[19], the children are more susceptible to disease and another study in Mexico[20], the elder people are more exposed to disease more than other groups. Most children less than 5 years old are more susceptible to disease because of their immune system, they are weak and they met with different people through playing with them and in kindergarten. `

CONCLUSION

Most cases with respiratory infection were males, the majority of cases still in the age less than 14 years old. There is a highly relationship between the age groups by year at the p. value less than 0.05. And this might require more effort especially among age less than 14 years and elderly. By highlighting regions and populations with the highest burden, and the risk factors that could have the greatest effect, funders, policy makers, and programme implementers can more effectively reduce the respiratory infections among the world's most susceptible populations.

Competing interests

The authors declare that they have no competing interests.

Financial disclosure statement

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