# **Original Research Article**

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# Morbidity profile of outdoor patients attending an urban health training center of South Andaman district, India

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#### **ABSTRACT**

**Background:** The study in terms of pattern of illness and seasonal variation in a defined region is an important way to improve the quality of health services delivered to the community. The study objective was to describe the morbidity profile of patients attending the outpatient department (OPD) of urban health and training centre (UHTC) under the Dept. of Community Medicine of a teaching hospital during the year.

**Methods:** This retrospective cross-sectional study was conducted for the duration of one year. The Data were collected from the OPD registers of medical officers from January 2015 to December 2015. Patients who had come to the centre for follow up visits were excluded from the study.

**Results:** A total of 74,276 patients were included in the study after exclusion (39,627 males and 34,649 females). Adults (>14 years) constituted about 79.19%. Overall, respiratory disorders were the major complaints (17.17%), followed by external causes of morbidity and digestive disorders. In case of children, major diseases were wound injury, malnutrition, diseases of ear, nose and throat and skin infection. The prevalence of diseases like hypertension and diabetes were reported less in this study.

**Conclusions:** The study gives an outline of the morbidity profile of patients attending an urban health training centre over a period of one year. This knowledge would help the health care providers and administrators to plan and deliver, enhanced and high quality services as per the community need.

**Keywords:** Morbidity profile, Outpatients, Urban health centre

#### INTRODUCTION

Periodic analysis of morbidity data is required to deliver the health services in a more efficient and effective manner. It will help the planners and policy makers to set the targets for better delivery of health services. <sup>1,2</sup> The study in terms of pattern of illness and seasonal variation in a defined region of health care setting is an important way to improve the quality of health services delivered to the community. It will also help the administrators in better management of scarce resources available to health sector. The incessant scrutiny of such information will provide an opportunity to monitor the progress of ongoing activities under various national health programs and to take timely intervention when such need arises.<sup>3</sup> Studies which are reporting about morbidity patterns provide information not only about the health status of various subgroups but also help to identify the type and extent of prevailing morbidities, and this will help in setting up the priorities while reforming the health services. In current scenario, Non-communicable diseases (NCDs) comprising accidents and injuries are showing a rising trend due to rapid and unplanned urbanization as well as changing life style of individuals.<sup>4</sup>

With this background, the present study has been planned to analyze the morbidity pattern of patients attending outpatient department (OPD) of an urban health training centre. The objectives of study were to describe the morbidity profile of OPD patients attending the health facility and to study the seasonal variation of diseases.

### **METHODS**

This retrospective study was carried out using the secondary data, collected from the OPD registers of Urban Health Training centre (UHTC) of a teaching hospital at Andaman & Nicobar Islands. The health centre caters a population of about 51,511. The average OPD attendance of the centre is 311 patients per day. The data were collected for one year duration from January

2015 to December 2015. Prior permission was taken from concerned authorities to conduct this study. All the new patients who had visited the health facility during the study period were included and patients came for follow up visits were excluded from this study. Patient's particulars as well as principal diagnosis information has been extracted from the registers of the consultant medical officer of UHTC. Data were analyzed using the Microsoft excel (version 7) and Epi Info version 7.

#### RESULTS

A total of 74,276 patients visited the Urban Health Training Centre during the one year period. Both males 39,627 (52.27%) and females 34,649 (46.64%) constituted nearly equal proportion of cases.

Table 1: Morbidity pattern of outpatient attending an urban health centre, South Andaman.

Morbidity as per ICD-10	Adult M*- N (%)	Adult F*- N (%)	Children M*- N (%)	Children F*- N (%)	Total N (%)
Infectious and parasitic diseases (A00-B99)	1403 (4.41)	1181 (4.36)	167 (2.12)	163 (2.14)	2914 (3.92)
Diseases of the blood and blood forming organs (D50 - D89)	82 (0.25)	307 (1.13)	72 (0.91)	65 (0.85)	526 (0.70)
Endocrine, nutritional and metabolic diseases (E00-E90)	655 (2.06)	924 (3.41)	384 (4.89)	291 (3.82)	2254 (3.03)
Diabetes mellitus	106 (0.33)	79 (0.29)	0 (0.00)	0 (0.00)	185 (0.24)
Diseases of eye and adnexa (H00-H59)	1414 (4.44)	1210 (4.47)	294 (3.74)	222 (2.91)	3140 (4.22)
Diseases of ear and mastoid process (H60-H95)	2236 (7.03)	2103 (7.8)	364 (4.63)	340 (4.46)	5043 (6.78)
Circulatory system (I00-I99)	218 (0.68)	180 (0.66)	0 (0.00)	0 (0.00)	398 (0.53)
Hypertension	218 (0.68)	180 (0.66)	0 (0.00)	0 (0.00)	398 (0.53)
Respiratory system (J00-J99)	5586 (17.5)	5156 (19.06)	986 (12.56)	1032 (13.56)	12760 (17.17)
Acute respiratory tract infection	2894 (9.10)	2689 (9.94)	278 (3.54)	235 (3.08)	6096 (8.20)
Asthma	240 (0.75)	214 (0.67)	49 (0.67)	50 (0.65)	553 (0.74)
Digestive system (K00-K93)	2357 (7.41)	2283 (8.44)	417 (5.31)	335 (4.40)	5392 (7.25)
Diseases of esophagus, stomach and duodenum	1769 (5.56)	1702 (6.29)	130 (1.65)	118 (1.55)	3719 (5.00)
External cause of morbidity and mortality (S00-Y98)	5998 (18.8)	3543 (13.10)	862 (10.98)	535 (7.03)	10938 (14.73)
Diseases of skin and subcutaneous tissue (L00-L99)	1990 (6.26)	1962 (7.25)	292 (3.72)	251 (3.29)	4495 (6.05)
Diseases of the musculoskeletal sys-tem (M00 - M99)	234 (0.73)	128 (0.47)	21 (0.26)	16 (0.21)	399 (0.53)
Diseases of genitourinary system (N00-N99)	396 (1.24)	528 (1.95)	80 (1.01)	40 (0.52)	1044 (1.40)
Others	9211 (28.98)	7535 (27.86)	3908 (49.80)	4319 (56.76)	24973 (33.62)
Total	31780 (42.78)	27040 (36.40)	7847 (10.56)	7609 (10.24)	74276 (100)

M\*= Males, F\*= Females

About 79.18 percent of total outpatient department (OPD) cases were adults (>14 Years) and rest were of pediatrics age group. The boys and girls proportion was 54.92% and

45.08% respectively. Overall, respiratory disorders were the major complaints (17.17%) followed by external causes of morbidity (14.73%), digestive disorders

(7.25%), and diseases of ear and mastoid process (6.78%) (Table 1). Among adults, respiratory system disorders were the most common (Males 17.5%, Females 19.06%) followed by external causes of morbidity and mortality (males 18.8%, females 13.10%).

The major morbidities in both the sexes were wound and injury to blood vessels, acute respiratory tract infection, diseases of ear and mastoid process, skin infection and diseases of esophagus, stomach and duodenum (Table 1).

Like adults, in paediatric cases also the most common disease reported were of respiratory system (Boys 12.56%, Girls 13.56%) followed by diseases due to external causes of morbidity (Boys 10.98%, Girls 7.03%) (Table 1). The major diseases among boys and girls were wound injury, malnutrition, diseases of ear, nose, throat, skin infection and acute respiratory tract infection (Table 1).

#### **DISCUSSION**

This study outlines the health conditions that were presented to urban health training centre during the year 2015. As per the findings of the present study, the large proportion of cases were above the age of 14 years which is comparable with the findings of other similar studies conducted in the past. <sup>1-3</sup>

The study showed that the commonly diagnosed diseases were of respiratory system followed by disorders due to external causes among adults. These findings are similar to the study done in a rural locality of Tamil Nadu in which majority of the people had illness affecting the respiratory system followed by illnesses of musculoskeletal system and digestive system in order of their magnitude.<sup>4</sup>

The study conducted in north India by Ghosh S et al, found out that the most common morbidity were the diseases of the respiratory system followed by diseases of the gastrointestinal system and musculoskeletal system.<sup>5</sup>

Also, Shanker et al in their study found that acute respiratory tract infection (ARI) was the commonest illness for which treatment was sought (12.6%), followed by wound Infection (10.1%), diarrhea/dysentery (6.6%), and worm infestation (5.6%). Similarly, a study conducted by Arun A et al also reported that respiratory diseases contributed to a large extent to the illness among the outdoor patients followed by hypertension. However, a study conducted in India by Kumari R et al had shown skin disorders and ARI as the most common illness in their setting. The study common illness in their setting.

This discrepancy in the occurrence of various diseases could be ascribed to the variation in the host and the environmental factors in the different geographic areas. In pediatrics' age group also, the most common illness reported was acute respiratory tract infections followed

by injuries and Digestive disorders. These findings correspond with the finding of study conducted by Ansari MA et al in rural areas of Aligarh among under five children. Similar findings of illness in school going children were reported in the study done by Kansal S et al in rural community of Uttar Pradesh. Study conducted by Gupta A et al found that the most common illness in case of children was acute nasopharyngitis followed by injuries, skin infection and diarrhoea. Study conducted by injuries, skin infection and diarrhoea.

Conversely, the prevalence of non-communicable diseases (NCDs) like hypertension and diabetes were reported less in this study despite the rising trends at national level. Infectious and parasitic diseases were reported in less percentage and it might be due to better immunization coverage activities.<sup>11</sup>

The illnesses due to poisoning, snake bites, scorpion stings and bites of arthropods were the least common morbidities. These findings will help the health care providers and administrators to deliver enhanced and high quality services as per the community need and also help in guiding training session for health staff.

# Limitation of the study

Though the study conducted with the aim to find out seasonal variation during the course of a year but we didn't find it, which might be due to different weather condition in this geographic setting. The study was conducted in a single health facility and secondary data were used for drawing inferences, hence generalization of findings needs due concern. However, number of people reported with illness to a UHTC, which is alike to a primary level health facility is large enough and could be considered as strength of study.

## **CONCLUSION**

The study gives an outline of the morbidity profile of patients attending an urban health training centre over a period of one year. This knowledge would help the health care providers and administrators to plan and deliver, enhanced and high quality services as per the community need.

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