

A Study on Prevalence of Bronchial Asthma in children of school going age in rural India



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Introduction

- Asthma – Serious global health problem
- DALYs lost = 1.9/1000 children < 15 yr annually
- Prevalence in children is increasing
- Paucity of data
- Burden on family, healthcare, society
- Implications

Objectives

- To determine the prevalence of bronchial asthma among children aged 6-15 years in the rural field practice area of KMC, Manipal.
- To study the socio-demographic correlates of bronchial asthma among the children aged 6-15 years in this community.

Methodology

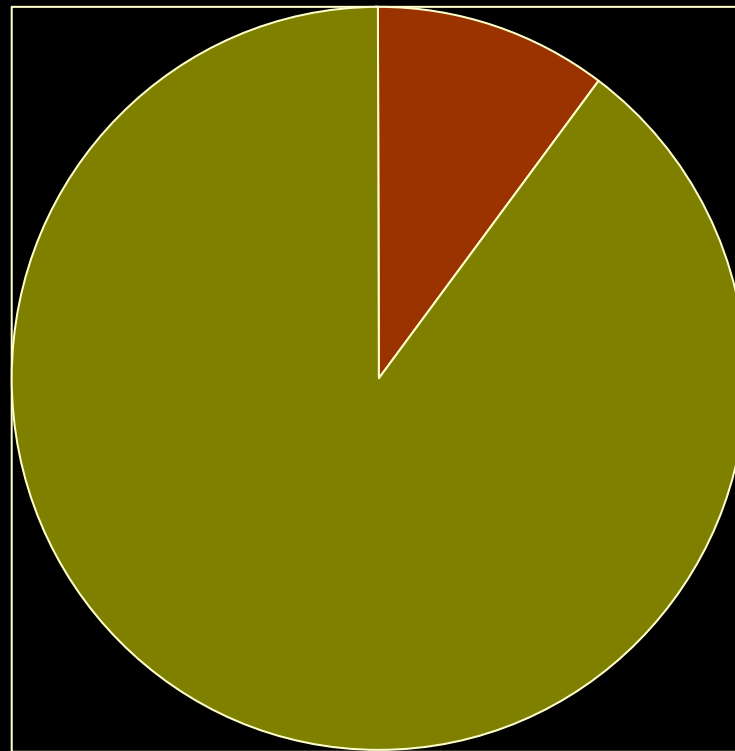
- Cross sectional study
- Total 559 children
- House to house survey
- 2 villages (Alevoor & Malpe)
- Interview schedule based on ISAAC
- Info collected about socio demographic factors and triggers of asthma

Results

Prevalence of asthma

10.3%

N = 555



■ Asthma
■ No asthma

89.7%

Gender wise prevalence of asthma

N = 555



Asthma

Prevalence of asthma according to age groups

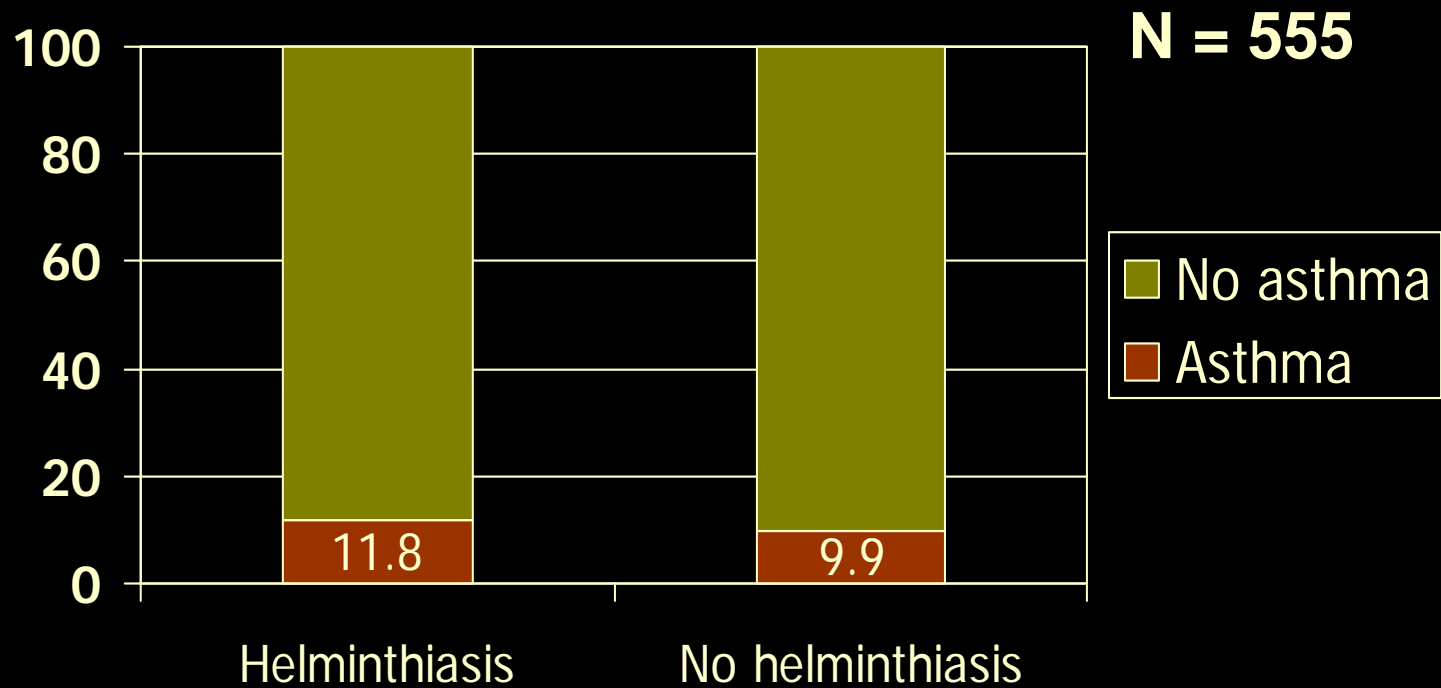
Age group (yr)	No. of children	No. with asthma	Prevalence	95% CI
6 – 9	221	33	14.9	10.2 – 19.6
10 – 12	172	15	8.7	4.5 – 12.9
13 – 15	162	9	5.6	2.0 – 9.0
Total	555	57	10.3	7.8 – 12.8

χ^2 for linear trend = 9.254, df = 2, p = 0.00235*

Prevalence of asthma according to the domestic fuel used

Fuel used	No. of children	Children with asthma	Prevalence of asthma	95% CI
Smoke producing	426	44	10.3	7.4 – 13.2
Non smoke producing	129	13	10.1	4.9 – 15.3
Total	555	57	10.3	7.8 – 12.8

Prevalence of asthma according to h/o worm infestation in last 1 year



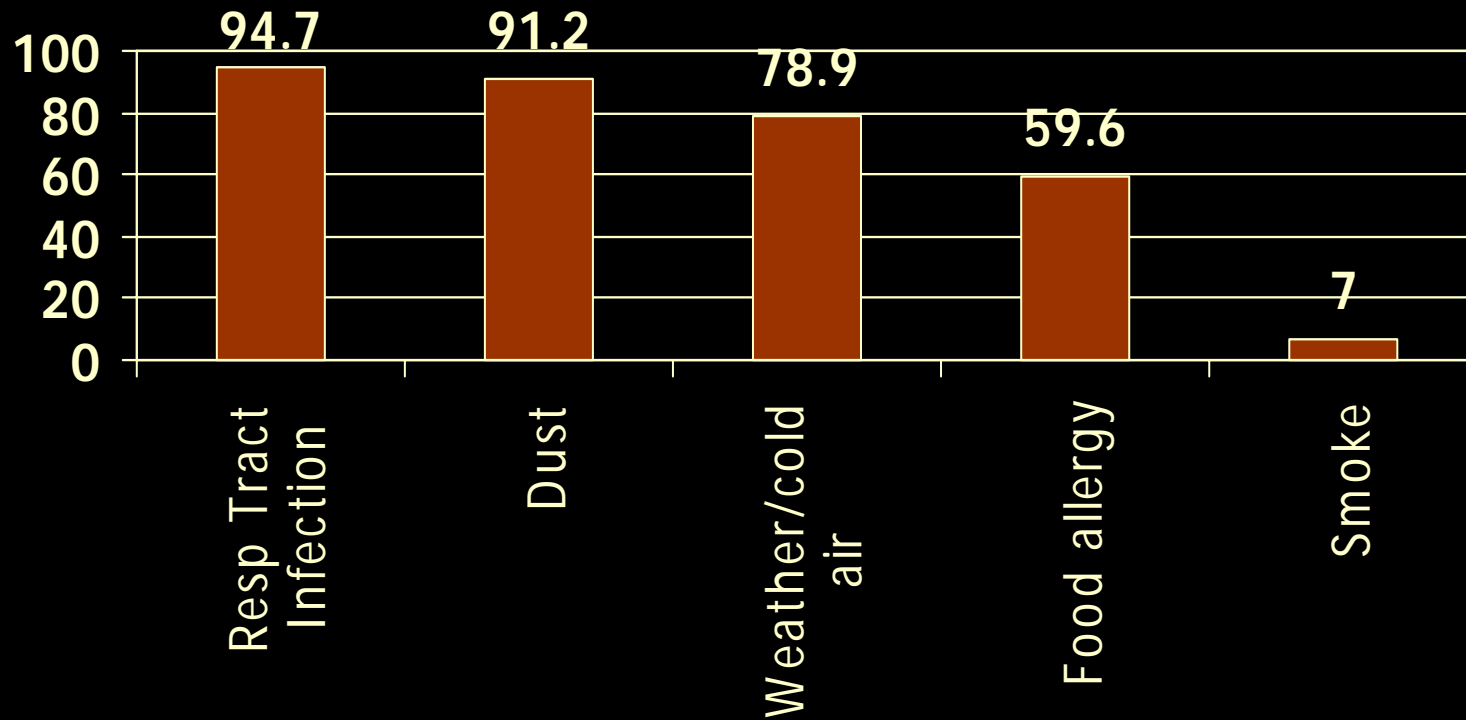
Prevalence of asthma according to family h/o asthma/allergy

Family h/o asthma	No. of children	Children with asthma	Prevalence of asthma	95% CI
Present	175	33	18.9	13.0 – 24.6
Absent	380	24	6.3	3.9 – 8.7
Total	555	57	10.3	7.8 – 12.8

$$\chi^2 = 20.45, df = 1, p = 0.0001^*$$

Triggering factors among children with asthma (%)

N = 57



Triggers of asthma

N = 57

Trigger	No. of children	Percentage
Respiratory tract infection	54	94.7
Dust	52	91.2
Weather/Cold air	45	78.9
Food allergy	34	59.6
Smoke	4	7.0

Conclusion

- Prevalence of asthma among children = 10.3%
- Inverse linear trend with advancing age
- Statistically significant association with family history of asthma/allergy
- No significant association with domestic fuel, helminthiasis, gender
- Respiratory infection, dust and cold air/weather – major triggers

Recommendations

- To increase awareness among parents about asthma and factors that exacerbate the condition.
- To educate the parents to avoid worsening of symptoms by taking appropriate preventive measures & to seek treatment at the earliest.



*Thank
You*