

## National Integrated School Health Screening Program in Iran

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### Abstract

**Background:** Screening program in schools are designed to identify children who have early signs of health problems. This study provides information about the findings of national screening program in Iran.

**Methods:** This national program is conducted by the Ministry of Health & Medical Education (MOHME) with collaboration of the Ministry of Education & Training. This program had two major parts including 1) screening of behavioral, hearing and visual disorders, pediculosis and calculating body mass index and 2) physical examination of students, conducted by primary care physicians. All services are offered free of charge. The students' parents are informed about the health status of their children.

**Results:** The screening program conducted in 2007-2008 included 3,124,021 students from 33 cities who were studying in the first- and third- grade- students in elementary schools, first- grade- students in middle and high schools. Of total students studied, 12.48% had weight disorders, i.e. body mass index <3<sup>rd</sup> percentile or ≥ 95<sup>th</sup> percentile. 4.77% had visual disorders, 3.95 % had head lice, 2.24% had behavioral disorders, and 0.6% had hearing disorders.

**Conclusion:** In addition to its benefits to the students' health status, the results of this screening program help health policy makers to design interventions for prevention and or early detection and treatment of the most common disorders documented among school students.

**Keywords:** School screening, Integrated program, Health, Iran

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### Introduction

The World Health Organization (WHO) describes setting, such as schools, as places where people live, work and play. This emphasis has gained increasing importance, leading to the development of the WHO's health promoting schools framework (1). Screening program in schools are designed to identify children who have early signs of health problems (2).

Iran has one of the world's youngest populations, of the total population of near 70,000,000; about 15,000,000 are at school age. According to the data of the Ministry of Education & Training in 2007, there have been 99,500 schools in urban and rural areas, and the coverage of education is more than 99% in primary schools, 91% for middle schools and near 82% for high school.

Screening of school students is being conducted since 1996 and in its standard form is integrated to the health system from 2002. This national program is conducted by the Ministry of Health & Medical Education (MOHME) with collaboration of the Ministry of Education & Training. This paper provides a brief description of this national program.

### Material and Methods

The primary health care in Iran is provided by the vice-chancelleries for Health in universities of medical sciences, with at least one university in each province. Strict training processes and vigorous quality assurance programs are used to ensure the quality of data collection in all universities of medical sciences; uniform checklists are

distributed among universities in different provinces. This program had two parts:

1- Screening of behavioral, hearing and visual disorders, pediculosis and calculating body mass index and this part is performed by health care providers in health centers in rural areas and in school health offices in urban regions.

2- Physical examination of students, which is conducted by primary care physicians.

All services are offered free of charge. The students' parents are informed about the health status of their children, and those students with any health disorder are referred to outpatient clinics or hospitals.

## Results

The screening program conducted in 2007-2008 included 3,124,021 students from 33 cities who were studying in the first- and third- grade- students in elementary schools, first- grade- students in middle and high schools. Of total students studied, 12.48% had weight disorders, i.e. body mass index <3<sup>rd</sup> percentile or ≥ 95<sup>th</sup> percentile. 4.77% had visual disorders, 3.95 % had head lice, 2.24% had behavioral disorders, and 0.6% had hearing disorders.

In elementary schools, 57.6% of first-grade- students with at least one disorder were managed in outpatient settings and 6% of them were hospitalized for more investigation. Among third-grade- students of elementary schools, these values corresponded to 13.2% and 1.1%, respectively. Among first grade students of middle and high schools, respectively 58.5% and 44.6% of those with at least one disorder were managed in outpatient setting and 1.2% and 0.3% were hospitalized for more investigation.

## Discussion

This study, which is the first of its kind not only in Iran, but also to the best of our knowledge in the Eastern Mediterranean region, revealed a considerably high prevalence of previously undiagnosed health disorders among school students. It confirms the importance of implementing school-based screening programs. Most previous stud-

ies were conducted on small number of students, and have assessed some health disorders (3-7).

The results of this screening program might help health policy makers to design interventions for prevention and or early detection and treatment of the most common disorders documented among school students.

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