

nity. However, this result also indicates that HCWs are at risk for HAV infection.

Measles seropositivity was lower in students and young workers. They are great risk for infection in case of a measles outbreak.

History of disease was found unreliable for all infections, including varicella.

Compliance to vaccination was higher among students and younger HCWs.

A serological evaluation should be done at employment and pre-clinic course for all HCWs and vaccination should be done in-need. For this purpose, a specific department should be created in all hospitals.

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#### Yellow fever immunity assessment in Kedougou, South Eastern Senegal, in 2012



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**Background:** Yellow fever (YF) is an acute viral disease transmitted by mosquitoes of the genus *Aedes*. WHO estimates that 200,000 cases and 30,000 deaths occur each year in tropical areas of Africa and South America. Although there is no specific treatment for YF, outbreak can be avoided by the vaccination strategy integrating routine EPI and preventive mass vaccination campaigns to maintain a high level immunity among population. Although Kedougou (south - eastern) is known as an YF endemic area, no massive outbreak has ever been reported. Since 2007, gold mining has become the main economic activity in Kedougou and has led to increased urbanization, more activity in the forest and massive immigration of non-immune populations. A YF outbreak occurred in Kedougou in 2010 and YF seroprevalence was 58.8% despite the preventive immunization campaign carried out in 2007.

**Methods & Materials:** The sampling method was based on a two level cross sectional random cluster sample design adapted from WHO. Kedougou region was divided into 3 districts in which 40 villages were drawn at random, using the cumulative total population. Samples were tested for anti YFV IgG antibodies by ELISA, and neutralizing antibodies against YFV.

**Results:** The overall YF immunity seroprevalence in the region was 49.04% [39.3-59.5]. Salemata district presented the highest prevalence of neutralizing antibodies with 57.3% [47-67] ( $p=0.0048$ ). The [31-45years] were better protected than children with a protective YF antibodies seroprevalence 57% [46.7-66.7] ( $p=0.0019$ ). Also adults in Khossanto and Fongolimbi rural communities (gold mining sites) were significantly less immunized against YF than those in Kedougou town with respectively OR = 0.31 [0.16-0.58] and OR = 0.62 [0.39-0.97].

**Conclusion:** This study showed that the rapid decrease of YF immunity (49%) below the required threshold (80%) to prevent out-

breaks only four years after the preventive immunization campaign was due mainly to the increase of traditional gold mining which attracts non immune population in the region.

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#### Unintentional injuries among 9 to 12 grades schoolchildren in Sana'a Capital City, Yemen, 2012



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**Background:** Childhood injuries are growing public health problem representing about half of deaths among 15 to 19-year-olds. Schoolchildren are nine times more likely to sustain unintentional injuries. The aim is to describe unintentional injuries pattern and associated factors among schoolchildren in Sana'a city.

**Methods & Materials:** A school-based study conducted on 9–12 grades students through multistage probability sampling. Self-administered questionnaire used where students reported unintentional injury required medical attention in past 12 months. The questionnaire also covered demographic and socioeconomic characteristics.

**Results:** The annual overall injury rate was 48 per 100 students where boys had a significantly higher injury rate than the girls (57 vs. 43; OR: 1.6,  $P < 0.0001$ ). Children with divorced parents has higher risk (62% vs. 47%, OR 1.9,  $P < 0.05$ ). A significantly higher proportion of injuries in boys was caused during sport (24% vs. 6%, OR 5.3,  $P < 0.0001$ ), while higher proportion of injury among girls was caused by burns (14% vs. 4%, OR 4.7,  $P < 0.0001$ ). Injuries from falling down were commonest (48%) followed by transportation (13%) and burn (10%). According to the location of injury in males it occurred at school (32% vs. 23%; OR 1.6,  $P < 0.05$ ) and way to-from school (26% vs. 15%; OR 2.0,  $P < 0.01$ ) while most injuries in girls occurred at home (59% vs. 31%; OR 3.2,  $P < 0.001$ ), and extremities were most frequently injured.

**Conclusion:** Unintentional injuries among schoolchildren should be recognized as public health concern in Yemen. Understanding pattern and socio-behavioral determinants will guide future interventions.

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