

**PS-94434-05 Active case finding overcomes gender barriers to diagnosing tuberculosis**

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**Background:** Globally, women have a lower reported TB incidence than men but it is unclear whether this is because women are less likely to have TB, or because they are less likely to be diagnosed.

**Methods:** Gender differentials in tuberculosis incidence were compared between passive and active case finding in a peri-urban shantytown. Smear-positive pulmonary tuberculosis index patients who were diagnosed by passive case finding were recruited over 5 years until January 2008. The household contacts of these index patients were visited in their homes and screened for tuberculosis by active case finding during the index patient treatment. Only patients and contacts aged >15 years were studied because of the uncertainty of paediatric TB diagnosis.

**Results:** Passive case finding diagnosed significantly more TB in men than women such that 60% of 1259 index cases were male ( $P < 0.001$ ). Active case finding involved screening their 3599 household contacts and this diagnosed 141 cases of secondary TB. In contrast to the male excess in passively found index cases, only 51% of the actively found TB cases were male ( $P = 0.72$ ). Therefore, active case finding was significantly more likely to diagnose women than passive case finding and this was true whether considering all household contacts with TB, only pulmonary TB or only sputum smear-positive pulmonary TB. Furthermore, active case finding in household contacts diagnosed TB after a significantly shorter cough duration than passive case finding (median 15 days (IQR 7–30) vs. 30 days (IQR 15–60) respectively,  $P < 0.001$ ).

**Conclusions:** Active case finding diagnosed TB with approximately equal frequency in men and women whereas passive case finding appeared to significantly under-diagnose women. These results have important implications for increasing the effectiveness of TB control and for gender equality in TB care.

**PS-94494-05 Tuberculosis outbreaks among students in school settings in Taiwan, 2006–2009**

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**Purpose:** To describe the TB outbreaks among students in school settings and the efforts required to control them.

**Materials and methods:** The suspicious TB clusters in school settings reported from Mar. 2006 to Feb. 2009 were analyzed. TB outbreak was defined as more than two epidemiological linked culture-confirmed TB cases with identical RFLP DNA fingerprinting.

**Results:** 19 suspicious TB clusters were identified during the study period, of which 87 students were notified in the national registry. They were predominantly female (59.8%), college or university student (69.0%), and culture positive (64.4%) (Table). These

**Table** Demographic, clinical and investigation-related characteristics of clustered cases from all suspicious clusters in school settings, 2006–2009

Characteristic	Reported cases from all suspicious clusters ( $n = 87$ ) $n$ (%)
<b>Demographic</b>	
Sex	
Female	52 (59.8)
Age group, y	
10–14	10 (11.5)
15–19	21 (24.1)
20–24	53 (60.9)
25–29	2 (2.3)
30–34	1 (1.1)
School type	
Primary	2 (2.3)
Junior/Senior High	21 (24.1)
Vocational	4 (4.6)
College	20 (23.0)
University	40 (46.0)
<b>Clinical</b>	
Radiograph	
Abnormal/without cavity	60 (69.0)
Abnormal/with cavity	26 (29.9)
Normal	1 (1.1)
Sputum smear	
Positive	30 (34.5)
Negative	56 (64.4)
Not done	1 (1.1)
Sputum culture	
Positive	56 (64.4)
Negative	26 (29.9)
Pending	3 (3.4)
Not done	2 (2.3)
<b>Investigation-related</b>	
No. of clusters	19
No. of contacts (case index)	5544 (63.7)
No. of newly confirmed cases (case rate)	38 (685.4/10 <sup>5</sup> )

clusters were followed up for 12.4 months averagely. 38 out of 5544 evaluated contacts were then confirmed as TB cases, indicating a case rate 32.7 times higher than the general population aged 10–34 years in Taiwan. Five clusters met the criteria of outbreak definition. Two of them happened in a vocational college in two consecutive years involving 10 students and 2 students respectively in their own classes with or without dormitory sharing. One was an outbreak with 17 students in a specific university. Eleven of them attended the special training course with or without house rental sharing. The rest of two outbreaks comprised with 3 and 8 students in two junior high schools each. One of the schools was