

diabetes (2.66) or who were living with a relative with tuberculosis (2.94).

Although the figures should be interpreted with considerable caution because of the small numbers involved, it is possible to calculate estimates of the population attributable risk by applying the odds ratios obtained to the prevalence of exposure in the controls (clearly the controls are not a random sample of the population, but we could not obtain population based figures for the variables in question). Calculations using the univariate odds ratios yield population attributable risks of 0.8% and 2% for having been in prison or a pretrial detention centre, respectively. However, because of the much higher prevalence of exposure to raw milk, the population attributable risk for this factor was 18%; similarly, that for being unemployed was 28%.

Discussion

Our findings measure the risks associated with a variety of social factors and tuberculosis. Poverty, unemployment, drinking unpasteurised milk, diabetes, living with a relative with tuberculosis, living in overcrowded conditions, and a prison or detention history were independently associated with an increased risk of tuberculosis.

Research has shown that a history of imprisonment is strongly associated with tuberculosis but did not examine the role of pretrial detention centres, unpasteurised milk, or diabetes.¹ Others have drawn attention to the role of the criminal justice system, specifically pretrial detention centres, in the epidemic of tuberculosis in Russia but did not measure this association.^{2,3} Our study confirms that incarceration is associated with a substantial increase in the risk of pulmonary tuberculosis. However, the small size of the population attributable risks associated with the two forms of incarceration suggest that, contrary to common belief, imprisonment—before trial or after sentencing—does not contribute greatly to the overall burden of tuberculosis in Russia.

The association found with unpasteurised milk may be linked to *Mycobacterium bovis* infection. The dairy industry has been affected by the political transition, and the consumption of unpasteurised milk has increased.^{4,5} If the association between drinking raw milk and tuberculosis proves to be related to *M bovis*, ensuring a safe milk supply would be a public health priority.

Our study has several limitations. Although living with a relative who had tuberculosis was associated with a greater risk, recall bias is possible. We did not investigate the potential role of HIV because of ethical, political, and practical considerations. Although HIV infection may be an important but unexplored risk factor, this is a recent phenomenon, and as yet the degree of immune suppression in infected individuals is not marked.⁶

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What is already known on this topic

Rates of tuberculosis have increased greatly in Russia over the past decade

Most research has examined the factors associated with the emergence of multidrug resistant tuberculosis or described the profiles of cases of tuberculosis

What this study adds

Exposure to raw milk and unemployment are probably the most important contributors to the burden of tuberculosis in the population studied

Other major risk factors for tuberculosis in Russia are poverty, overcrowding, illicit drug use, living with a relative with tuberculosis, and imprisonment—either before trial or after sentencing

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Corrections and clarifications

Qualities of a surgeon

In this Endpiece filler article by S N Anjum and colleagues (*BMJ* 2005;331:1176, 19 Nov) we should probably have used the Latin spelling for the name of the Roman medical writer Aulus Cornelius Celsus (c 25 BC to AD 50)—not Celsius (Anders Celsius, 1701-1744), who, as one respondent pointed out, "has got a lot to do with thermometers [rather than] qualities as a surgeon."

MPs accuse Medical Research Council of panic over bird flu

During the editorial process, we introduced an error into the opening paragraph of this News article by Michael Day (*BMJ* 2005;331:1358, 10 Dec). The UK Medical Research Council was reporting about avian influenza to the House of Commons [not the House of Lords, as we stated] Select Committee on Science and Technology. The confusion arose because of a separate, ongoing inquiry into pandemic flu in the House of Lords.