

9. Hochedez P, Jaureguiberry S, Debruyne M, Bossi P, Hausfater P, Brucker G et al. Chikungunya infection in travelers. *Emerg Infect Dis* 2006; 12(10):1565-7.
10. Higgs S. The 2005-2006 chikungunya epidemic in the Indian Ocean. *Vector Borne Zoonotic Dis* 2006; 6(2):115-6.
11. Angelini R, Finarelli AC, Angelini P, Po C, Petropulacos K, Macini P et al. An outbreak of chikungunya fever in the province of Ravenna, Italy. *Euro Surveill* 2007;12(9):E070906.1. Available at: <http://www.eurosurveillance.org/ew/2007/070906.asp#1>
12. Niedrig M, Donoso Mantke O, Altmann D, Zeller H. First international diagnostic accuracy study for the serological detection of West Nile virus infection. *BMC Infect Dis* 2007; 3; 7:72.
13. Niedrig M, Linke S, Zeller H, Drosten C. First international proficiency study on West Nile virus molecular detection. *Clin Chem* 2006; 52(10):1851-4.
14. Biel SS, Donoso Mantke O, Lemmer K, Vaheri A, Lundkvist A, Emmerich P et al. Quality control measures for the serological diagnosis of hantavirus infections. *J Clin Virol* 2003; 28(3):248-56.
15. Donoso Mantke O, Lemmer K, Biel SS, Groen J, Schmitz H, Durand JP et al. Quality control assessment for the serological diagnosis of dengue virus infections. *J Clin Virol* 2004; 29(2):105-12.
16. Lemmer K, Donoso Mantke O, Bae HG, Groen J, Drosten C, Niedrig M. External quality control assessment in PCR diagnostics of dengue virus infections. *J Clin Virol* 2004; 30(4):291-6.

[back to top](#)

Recent changes in tuberculosis control and BCG vaccination policy in France

D Levy Bruhl (d.levybruhl@invs.sante.fr)¹, M-C Paty², D Antoine¹, D Bessette²

1. Institut de Veille Sanitaire, Saint Maurice, France

2. Direction générale de la santé, Ministère de la santé de la jeunesse et des sports, Paris, France

On 11 July 2007, the French Minister of Health launched the National Tuberculosis Control Program and a new policy on Bacille Calmette-Guérin (BCG) vaccination. The latter includes the suspension of universal mandatory BCG vaccination of children with a shift to selective vaccination. BCG vaccination is now strongly recommended for children with a high risk of contracting tuberculosis (TB). These children are defined as those born in a country with a high incidence of TB, or with at least one parent born in such a country, or any child planning to stay at least one month in such a country, or with a history of TB in his/her close family. Children living in the Ile-de-France (Paris and suburb) or French Guyana regions, and children considered by a physician as living in an environment with a high risk of exposure to TB are also targeted by the new BCG recommendation. This decision is the result of a debate initiated in 2000 by the Institut de Veille Sanitaire, Saint Maurice (National Institute for Public Health Surveillance, InVS), the Advisory Board on Immunisation and the Ministry of Health. This led, in 2002, to the discontinuation of all BCG revaccinations and all routine tuberculin testing (other than those performed as part of an investigation of a contagious TB case or those performed before vaccination).

Several factors have contributed to the change in BCG policy. France is considered to have a low incidence of TB, with 8.9 cases per 100,000 population in 2005. As in other western European countries, TB in France has declined over the last century and tends to be concentrated in areas and in certain population groups such as the homeless, immigrants coming from countries with a high prevalence of TB and the elderly. In 2005, France's TB incidence was below 10 per 100,000 in all regions, except in Ile de France and French Guyana (19.7 and 44.0 per 100,000 respectively). The notification rate was also higher in homeless persons (210/100,000), in persons born abroad (41.5/100,000), especially in those born in sub-Saharan Africa (160/100,000) and in persons aged 80 years and older (21.7/100,000) [1]. The incidence of sputum smear-positive cases of TB and the incidence of meningitis in children have decreased and in 2002-2004 were below the thresholds recommended by the International Union Against Tuberculosis and Lung Diseases (IUATLD) [2] for considering a possible discontinuation of BCG vaccination.

In 2005, the Advisory Board on Immunisation recommended the shift to a selective vaccination under the condition of reinforcing TB control in France. Following this recommendation, the debate

was triggered by the withdrawal from the market in January 2006 of the BCG multi-puncture device, almost exclusively used for primary vaccination, and its replacement by the BCG SSI to be administered intradermally. The difficulty of using this technique in young infants for untrained medical staff as well as its less favourable safety profile compared to the multipuncture technique – in a context where the targeting of BCG to high-risk children was already under discussion have led to a decrease in BCG vaccination coverage of more than 50%, despite the vaccination still being mandatory.

The potential for discrimination linked to the criteria used to define the children for whom BCG vaccination would be recommended was addressed through consultations with the Comité Consultatif National d'Éthique (National Ethics Committee) and the Haute Autorité de Lutte contre les Discriminations et pour l'Égalité (Authority against Discrimination). In addition, the Ministry of Health called for a citizens' conference. This was held by the French Society of Public Health (SFSP) in late 2006.

Following these consultations and the finalisation of a national TB control program, the Advisory Board on Immunisation issued new recommendations in March 2007 on which the new BCG policy is based. The new TB control programme should lead to an improved control of the disease, therefore decreasing the risk of exposure for unvaccinated children. The programme aims to maintain the decrease of TB incidence and to reduce inequalities. It is based on six major objectives:

1. To ensure an early diagnosis and an adequate treatment for all TB cases
2. To improve TB screening
3. To optimise the BCG policy
4. To maintain anti-TB resistance at a low level
5. To improve the epidemiological surveillance and the knowledge on the determinants of TB
6. To improve the piloting of TB control

These objectives will be reached through measures such as improving TB awareness and information about access to health care and social rights for population at higher risk of TB, the development of guidelines and training of health care workers and the strengthening of control measures for contagious cases. TB surveillance has already been adapted to enable monitoring of the impact of both the implementation of the plan and the modification of the BCG policy. The recent changes include the collection of new information on the notification of TB cases in order to more effectively identify the target population for BCG (place of birth of the child and his/her parents for children younger than 15 years, and history of TB in the closed family) as well as the implementation of treatment outcome monitoring. Specific coverage surveys will have to be regularly carried out in order to monitor BCG coverage in the newly targeted population, before the routine vaccine coverage monitoring tools can be adapted to the BCG selective policy.

The challenge will be the rapid implementation or strengthening of TB control measures, other than BCG, included in the national TB control programme, and the capacity to maintain a high coverage in high risk children targeted by the new recommendations.

For further information

On the new tuberculosis control programme and the new BCG policy in France:

<http://www.sante.gouv.fr/htm/dossiers/tuberculose/sommaire.htm>

On the epidemiology of tuberculosis and the surveillance system in France:

<http://www.invs.sante.fr/surveillance/tuberculose/default.htm>

References:

1. Antoine D, Che D. Les cas de tuberculose déclarés en France en 2005. Bulletin Épidémiologique Hebdomadaire, No 11, 2007. Available from: http://www.invs.sante.fr/beh/2007/11/beh_11_2007.pdf
2. International Union Against Tuberculosis and Lung Disease. Criteria for discontinuation of vaccination programmes using Bacille Calmette-Guérin (BCG) in countries with a low prevalence of tuberculosis. Tubercle and Lung Disease [75], 179-180. 1994.