

NEW VACCINE AGAINST TUBERCULOSIS

VPM1002 is the new BCG vaccine to be produced by the Serum Institute at Pune, India. It was developed by the Max Plank Institute for Infection Biology, Berlin. For this vaccine, BCG has been genetically modified by deletion of the Urease C gene and expression of the listeriolysin. At a small scale in animals and humans, it was found to be safer and more effective than BCG. Phase 1 trials in adults in Germany and South Africa, and a Phase 2a trial in 50 newborns in South Africa have been promising. A Phase 2b trial is currently underway in infants born to HIV positive or negative mothers. This will be followed by Phase III trials in newborns and adults in India.

The new vaccine has been found to be safe even in HIV-infected patients, and is expected to protect against extra-pulmonary tuberculosis. Another interesting finding has been the formation of protective antibodies. So far, antibodies were not considered useful against tuberculosis as it is an intracellular pathogen. In contrast to natural *M. tuberculosis* infection, pre-existing antibodies stimulated by prior vaccination could directly attack *M. tuberculosis* at the port of entry, and may contribute to vaccine efficacy. This option has thus far been largely ignored in tuberculosis vaccine design. An effective vaccine against tuberculosis is much required and long awaited. (*The Hindu 21 February 2016*).

HEALTH IN THE UNION BUDGET

The Finance Minister of India has announced The Health Protection Scheme of Rs. 100,000 to cover unforeseen illness in poor families with an additional Rs. 30,000 for senior citizens. The government also plans to add 3,000 pharmacies under the *Jan Aushadhi Yojana* to provide generic drugs at affordable rates. The Minister also announced the launch of a National Dialysis Program to deal with the high costs involved in renal dialysis processes. As part of the program, every district hospital will have facilities of renal dialysis.

However, child health interventions have received a massive cut from Rs 15,483.77 crore to Rs 14,000 crore this year. The integrated Child Development scheme (ICDS) has received a 7% reduction in funds; Mid-Day Meal scheme is also badly hit. The total union budget allocation has gone down from 0.74% in 2014-15 to

0.49% in 2015-16. Last year too, the government had slashed funds to the Women and Child Development Ministry by 50% compared to the previous year. (*The Times of India 1 March 2016, The Hindu 3 March 2016*).

FRUIT AND VEGETABLE INTAKES – INDIA'S REPORT

The WHO recommends 400g of fruit and vegetable intake per day (5 servings of 80g each) to provide adequate phytonutrients to prevent chronic diseases. A report on the fruit and vegetable consumption in India was recently released by the ICRIER (Indian Council for Research on International Economic Relations) in New Delhi. The survey included 1000 individuals across 5 upper- and middle-income groups across India. The average intake was 3.5 servings per day which included 1.5 servings of fruits and 2 servings of vegetables. Eighty-nine percent of respondents were not aware of the WHO recommendations. Causes for low intakes included lifestyle, seasonal availability and high cost. The level of food processing is low in India (2.2%), and about 18% of fruits and vegetables are wasted in the supply chain. The intake in rural areas is likely to be much lower, despite India being a largely vegetarian country. (*The Hindu 7 February 2016*).

REDUCING ANTIBIOTIC PRESCRIPTIONS

Authorities in UK conducted an interesting study to reduce antibiotic usage. General Practitioners (GPs), whose antibiotic prescription rates were in the top 20% for their local National Health scheme areas, were randomized into two groups. Every GP in the intervention group was sent a letter from England's Chief Medical Officer and a leaflet on antibiotics for use with patients. The letter stated that the practice was prescribing antibiotics at a higher rate than 80% of practices in its NHS Local Area Team. GPs in the control group received no communication. There was a significant reduction in prescription rate of antibiotics by GP's who received the letter, resulting in an estimated 73,406 fewer antibiotic items dispensed. Social norm feedback from a high-profile messenger can substantially reduce antibiotic prescribing at low cost and at national scale. (*The Lancet 18 February 2016*).

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