

THE UNION BUDGET: HEALTH DELIVERY TO THE POOR

What has the new Union Budget done for health? A stronger focus on rural health, insurance for people below the poverty line, and cheaper heart devices. In the next three months, the Health Ministry aims to identify difficult, most difficult and inaccessible areas particularly in hilly states and tribal areas. All efforts will be made to fill up vacancies of health personnel in these areas. The government is planning to start financial incentives for doctors to work in rural areas. Salaries will be nearly double of that earned in urban areas. Contractual appointments are also being planned. By the end of July 2009, the government also plans to have a fully functional web based health management information system (HMIS) to monitor the progress and status of the National Rural Health Mission.

To correct the regional imbalance in the availability of affordable and reliable healthcare services, 6 AIIMS like institutions are being established in Patna, Raipur, Bhopal, Bhubaneswar, Jodhpur and Rishikesh. The Government has also made a commitment to revive the three vaccine manufacturing units in Kasauli, Guindy and Coonoor.

6.5 crore families living below poverty level will be covered under the Rajya Swasthya Bima Yojna. Already 46 lakh such families have been issued biometric smart cards, which enable them to access health care from a list of public and private hospitals.

The union budget has also allocated Rs 10 crore for the National Program for Prevention and Control of Deafness (NPPCD). It aims to prevent avoidable hearing loss and ensure early identification, diagnosis and treatment of ear problems responsible for hearing loss and deafness. Planning the health of a billion people is a challenge worthy of great visionaries. (*The Hindu*, 2 July 2009).

BIOPROSPECTING: SEARCHING FOR NEW DRUGS

In the 19th century, a pharmacist's apprentice discovered morphine in the latex resin of the opium poppy plant. Even today it remains one of the most widely used painkillers. Since then nature has yielded many secrets to combat various illnesses – from penicillin to aspirin and digoxin. About 50% of all pharmaceuticals in use today are derived from natural sources. So, scientists tirelessly screen thousands of plants for medicinal value. But such bioprospecting can be laborious with hardly 1 useful product for every 20,000 screened.

To improve yields many techniques have been used. Consulting the indigenous people has enhanced success by 60%. Other good sources for drugs are toxins from sessile or slow moving marine invertebrates like sponges, sea slugs and corals.

Identifying the molecule is only the first step. Next comes developing renewable resources for accessing large quantities of the chemical. Then come the phase I, II and III trials. Ethical dilemmas about intellectual property rights abound. And the worst problem is that the very sources of these natural drugs are slowly disappearing.

The result is that big pharmaceutical companies are now systematically shifting away from screening natural products to synthetic ones. There has been a decline of upto 30% in the number of natural drugs screened. They use a rapid technique called high throughput screening which allows them to test 100,000 synthetic molecules per day. The interesting point is that though screening synthetic molecules are easier and much faster, the number that finally get drug status approval are still lower than those from natural resources. With millions of years of experience behind her, nature is hard to beat. (*Scientific American* 9 July 2009)

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