Multiple diagnostic tests costing only ₹85: A new initiative launched in Andhra Pradesh

The Government of Andhra Pradesh in association with the Public Health Foundation of India (PHFI) has launched a new initiative Swasthya Slate at several MeeSeva centres in Hyderabad. (In Telugu, ‘Mee’ means ‘you’ and ‘seva’ is service; so mee seva roughly translates to ‘at your service’.) The Swasthya Slate initiative allows multiple diagnostic tests: blood pressure, blood sugar, haemoglobin, heart rate, water quality (total suspended particles in water), electrocardiogram (ECG), body temperature and urine protein—all for ₹85 which is about 7% of the prevailing market rates (₹1100–1500) at private diagnostic laboratories in Hyderabad. While conventional diagnostic laboratories issue the results on the following day, with Swasthya Slate the results are available to the patients in 10–15 minutes.

The kit comes with an Android-based tablet, a small box called Swasthya Slate and other diagnostic equipment. The devices used for testing blood glucose (glucometer), haemoglobin, urine proteins, the sensors for recording heart rate, temperature; the water quality meter; the sphygmomanometer; and the ECG leads are connected to the Swasthya Slate box which in turn connects to the tablet device through bluetooth technology. The kit is GPS-enabled and records the coordinates of the patient. Where internet is available, it also has the facility to send the test results in the form of emails and SMS to the patient’s treating doctor. Further, the stored data can be accessed only by the patients or their treating doctor at the Swasthya Slate portal. When there is no internet facility, these data are stored within the tablet’s internal memory. The software and hardware for this innovative project were developed in-house at PHFI. The innovative technology of Swasthya Slate appears to have the potential to render basic diagnostic tests accessible and affordable.

SOUMYADEEP BHAUMIK, Kolkata, West Bengal

India establishes Asia’s first biosafety level-4 laboratory

The Indian Council of Medical Research (ICMR) in association with the Department of Science and Technology (DST) has established Asia’s first Biosafety Level-4 (BSL-4) laboratory in the premises of the Microbial Containment Complex (MCC), National Institute of Virology (NIV), Pune. The facility was inaugurated by the Union Minister of Health and Family Welfare, Shri Ghulam Nabi Azad in December 2012, to mark the end of the Diamond Jubilee celebrations of NIV.

Biosafety levels are designated from 1 to 4 in ascending order, by degree of protection provided by adoption of special facilities and microbiological practices to enhance personnel safety, environmental protection and increasing level of containments. A BSL-4 signifies the highest level of biocontainment and is required to undertake research on highly infectious agents so that research on fatal human diseases for which vaccines or treatments are not available or other exotic or related agents with unknown modes of transmission can be done in a safe and secure manner. NIV’s BSL-4 facility is designed to be at par with internationally accepted guidelines of WHO, Geneva and the Centers for Disease Control, USA. It will help to investigate highly infectious diseases in the region, such as severe acute respiratory syndrome (SARS), Avian influenza, Swine influenza, Nipah virus infections, Crimean Congo haemorrhagic fever and Kyasanur forest disease. The NIV is also likely to host a facility for archiving group-4 viruses as a National Virus Repository. Built at a cost of ₹65 crore (650 million), the facility will also help researchers from neighbouring nations.

Since such agents have the potential for being used for bioterrorism, the facility has high levels of monitoring of personnel and data, including electric power fencing and a monitored gate with security cameras.

ALLADI MOHAN, Tirupati, Andhra Pradesh

Adoption of protocol to eliminate illicit trade in tobacco products

The parties to the WHO Framework Convention on Tobacco Control adopted the Protocol to Eliminate Illicit Trade in Tobacco Products on 12 November 2012 in Seoul, Republic of Korea. This protocol is aimed at combating the international problem of illicit trade in tobacco through ‘a global tracking and tracing system’. The issue of ‘supply chain control’ has been dealt with extensively in the protocol and provisions for international cooperation have been addressed. Drafted by an Intergovernmental Negotiating Body, the final consensus on the draft protocol was reached at the fifth session of the body, held from 29 March to 4 April 2012 at Geneva, Switzerland. Following this adoption by the Conference of Parties, the protocol will remain open for signature for one year till January 2014 and would enter into force 90 days after the 40th party has ratified the protocol. The adoption of the protocol reflects the global commitment in reducing illicit tobacco trade which has seriously undermined tobacco control efforts in the past. Since coming to force in 2005, the WHO Framework Convention on Tobacco Control has emerged as one of the most crucial treaties in global public health and the adoption of the present protocol is the latest evidence in this regard.

TAMOGHNA BISWAS, Kolkata, West Bengal

Wait times vary for patients in Canada

Universal healthcare is a source of personal or collective pride for most Canadians. However, the Canadian healthcare system continues to be plagued by high wait times for access to treatment, especially for patients requiring routine and specialized care.

In 2004, as part of the 10-year plan to strengthen healthcare, all jurisdictions in Canada except Quebec (which has its own wait times strategy) had committed to significantly reducing wait times
for priority healthcare services. Accordingly, pan-Canadian benchmarks for wait times were developed by provincial governments in Canada. The largest gains in reductions were observed in the first few years following the start of the plan. In more recent years, however, no further improvements in wait times have been observed.

The latest report by the Canadian Institute for Health Information (CIHI) indicates that while the majority of Canadians are receiving care within wait time benchmarks for priority services—ranging from 75% for knee replacements to 99% for bypass surgery, they are still waiting longer to see primary care physicians and specialists, and undergoing elective surgery for other reasons. They are also waiting longer for care in emergency departments, and palliative care, rehabilitation services and mental health services. Even within priority surgical services, access to timely care is dependent on the area of residence. For example, with respect to hip replacement, 90% of patients in Ontario underwent surgery within the acceptable wait time benchmark. In contrast, only 59% of patients in Manitoba underwent hip replacement surgeries within the acceptable wait time benchmark.

While the use of benchmarks has proven successful in reducing wait times in specific priority areas, provinces across Canada are exploring various strategies such as providing financial incentives to physicians, changes in human resource policies, and use of technology to improve patient flow to reduce wait times in other areas as well. In some provinces, these incentives are beginning to show results but there is still a long way to go before all Canadians, regardless of where they reside in the country, get the care they need in a timely manner.

MEENAKSHI KASHYAP, Calgary, Canada

Contaminated steroid injection leads to an outbreak of fungal meningitis in the USA

The USA has had an outbreak of fungal meningitis following injection of a contaminated steroid. The first reported case was from Tennessee in September 2012, where a patient developed fungal meningitis about 19 days after an epidural injection of preservative-free methylprednisolone acetate (MPA). As of 14 January 2013, there have been 678 cases of fungal infection in 19 different states, with a total of 44 deaths attributed to infection (source: www.cdc.gov). Based on imaging data, the combined Centers for Disease Control (CDC) and US Food and Drug Administration (FDA) investigation showed that many patients also developed localized infections such as epidural abscess, arachnoiditis, discitis or vertebral osteomyelitis. The predominant fungus identified is an environmental agent Exserohilum rostratum. In addition, other fungi (Aspergillus tubingensis, Aspergillus fumigatus, Cladosporium sp. and Penicillium sp.) and the bacterium Bacillus have also been implicated. All infected patients received the steroid from among three lots manufactured by the New England Compounding Center (NECC) in Framingham, Massachusetts. The company voluntarily recalled these lots from the market on 25 September 2012.

The US FDA in its investigation of the NECC manufacturing facility detected fungal contamination in a vial of both MPA as also in other vials produced by the company. The compounding centre voluntarily shut down operations on 3 October 2012. By early December 2012, the CDC and US FDA had identified additional microbial contamination in unopened vials of betamethasone, cardioplegia and trimacinolone solutions distributed and recalled from NECC. The compounding centre allegedly did not follow proper sterilization procedures and distributed its products without knowing whether they had passed sterility tests. There is now a criminal investigation into the practices at NECC; the state pharmacy board has voted to permanently revoke the company’s licence to operate as well as the licences of the company’s three principal pharmacists. The FDA reported that a sister firm, Ameridose, run by the same management, is also to blame. According to a report released in November 2012, federal inspectors found insects and corroding walls and had concerns about safety and quality safeguards. The pharmacy says its cleaning contractor should share blame for the episode. UniFirst Corp., the cleaning company, has challenged this claim. In December 2012, the compounding centre announced that it had filed for bankruptcy protection, with a goal ‘to provide a greater, quicker, fairer payout to its creditors than they could achieve through piecemeal litigation’.

HARESH MANI, USA

Malaria funds drying up: World Malaria Report 2012

The World Malaria Report 2012 which contained data and analyses obtained from 104 malaria-endemic nations from across the world was released on 17 December 2012. As per the report, ‘approximately half the countries (50) with ongoing malaria transmission are on track to meet the World Health Assembly (WHA) and Roll Back Malaria (RBM) target: to achieve a 75% reduction in malaria cases by 2015, compared to levels in 2000’. However, these 50 nations represent only 3% of malaria infections. Thus, most of the world’s populations will live in regions which will not be able to achieve the WHA or RBM targets.

Seventy-nine of the 104 nations have malaria in the control phase with 10 in the pre-elimination phase, 10 in the elimination phase and another 5 nations without any ongoing phase. However, in spite of the tremendous success achieved, international funding for malaria control has levelled off, and is projected to be about US$ 2.7 billion between 2013 and 2015—this is substantially below the US$ 5.1 billion estimated for achieving universal coverage of malaria intervention. This shortfall of about US$ 2.3 billion might throw malaria control measures across the world out of gear and might jeopardise measures, particularly in low-income nations where the scale-up malaria control project needs more funds. Provision of insecticide-treated nets (ITN) recommended by the WHO has been made in 89 nations where they are distributed for free. However, the number of households in sub-Saharan Africa with at least one ITN is estimated to have remained at 53% in 2012, similar to the data of the previous report in 2011. Indoor residual spraying still remains the most powerful vector control measure and as per the report more than 153 million lives were protected by its use worldwide in 2011. However, it is worthwhile to note that as per the ‘Global Plan for Insecticide Resistance Management in Malaria Vectors’ released earlier in 2012, mosquito resistance to at least one insecticide used for malaria vector control has been identified in 64 nations.

India is the most affected nation in Asia. India together with the Democratic Republic of Congo and Nigeria account for more than 40% of estimated malaria cases globally. India also manufactures most of the world’s oral artemisin-based products—monotherapy of which is not recommended by the WHO. Marketing of oral artemisin-based monotherapy is allowed in many African nations.

SOUMYADEEP BHAUMIK, Kolkata, West Bengal