Most visitors to Shanghai are impressed by its skyline, which has undergone tremendous changes in recent years. The latest count indicates that some 1800 buildings in the city are more than 22 floors high. Rumour had it that in the 1990s, 25% of all construction cranes in Asia were in Shanghai. The most favourite place in Shanghai frequented by tourists and locals alike is the Bund, the famous waterfront with the muddy Huangpu River on one side and grand old buildings on the other. Standing on the Bund, looking across the river at the remarkable buildings in the new development area, Pudong, can be mesmerising (see photo). The new sleek buildings in Pudong always evoke strong reactions, particularly the Oriental Pearl Tower (on the left) and the Jinmao Building (on the right). The Oriental Pearl Tower, 468 metres tall, is a huge television broadcasting tower with conference halls, observation decks, and restaurants. To the medically inclined, it looks like an inverted hypodermic needle. To me (an epi-person—that is, an epidemiologist with the aspiration to be an epicurean), it resembles a meatball shish kebab. The 88 floor Jinmao Building, a 420 metre stainless steel/glass monster resembling a wire cage, houses offices, restaurants, an observation deck, and the world’s highest hotel. I don’t know whether services at the hotel can match its physical height, but sitting in one of its restaurants at night looking across the river at the Bund with all the grand edifices lit up is certainly a memorable experience.

Shanghai is the showcase of modern China, and the impressive skyline of Shanghai bears testimony to the progress and modernisation of the country. China, with a population of 1.2 billion and a workforce of 700 million, is rapidly becoming one of the major industrial countries in the world. Modernisation and industrialisation, however, come with a price: industrial exposures and occupational diseases.

One of the most widely used industrial chemicals in China is benzene. Chinese medical journals are replete with reports of benzene poisoning. A recent episode occurred in the small town of Baigou in Hebei Province. Benzene containing adhesives were used at a small leather bag shop located inside a private home with little ventilation. Several young female workers, ranging from 16 to 18, worked and slept in the shop. In March 2002 one of the young women, aged 18, was diagnosed with aplastic anaemia and died shortly after. Her death triggered a press investigation, and it was discovered that several other workers from the same shop had previously also died from benzene poisoning. The news outraged the public and shocked the central government in Beijing, and an official investigation was launched. Official figures indicated that during the past two years a total of 17 workers from the shop had been diagnosed with benzene poisoning and five had already died. Benzene measurements at the shop were as high as 2040 mg/m$^3$. Another recent episode involved the use of benzene containing paint thinners in Tianjin. Five workers were engaged in waterproofing the basement (32 m $^3$ × 24 m $^3$ × 5 m) of a building, which was poorly ventilated with only two openings. On the sixth day, all five workers passed out and two subsequently died. Measurements reported benzene levels of 175.7 and 236.7 mg/m$^3$ at the two openings and 55 463.3 mg/m$^3$ inside the basement.

Recently the occupational standard for benzene exposure in China has been lowered from 40 mg/m$^3$ to 10 mg/m$^3$ (15–30 min-STEL) and 6 mg/m$^3$ (8h-TWA), and new national laws enforcing the standards went into effect on 1 May 2002. New standards and new laws aside, more attention should be focused on educating both employers and workers and on promoting awareness of occupational hazards. Many small workshop owners and workers were originally farmers with very little education, who are simply uniformed and unaware of the health hazards of the chemicals they use.

References