

Annex 8

Mobile diagnostic laboratories: operational details

MDL vehicles

1. The first six MDL vehicles (Mercedes 410), initially equipped with whole body gamma-ray monitors, food contamination analysers, Geiger counters, blood and urine analysers, desktop and laptop computers, and printers, were delivered in December 1991 and deployed in Briansk and Kursk (Russia), Gomel and Mogilev (Belarus), Rovno and Zhitomir (Ukraine). Following logistical and customs formalities (customs clearance, registration, etc.) they became operational in April 1992. Due to changing needs in 1996 one MDL from Russia (Kursk) was redeployed to Belarus (Brest).



2. Following the changes in programme strategy recommended by the Second International CHARP Conference (April 1996, Gomel), by the end of 1996 food monitoring and full body scans were completely stopped, and MDLs focused mainly on thyroid gland screening. That allowed the heavier Mercedes MDL vehicles (which by that time had come to the end of their effective service life) to be replaced by the lighter VW minibuses.



3. In mid-2003 some of the VW minibuses were replaced by the locally produced Gazel vehicles, mostly for financial reasons. However, their quality has not been comparable to that of the German-produced vehicles and their length of service was considerably reduced. The two MDL vehicles still in service that were observed by the review team in April 2015 were a Mercedes (supplied around 2005 by the German Red Cross) and a VW minibus.

MDL team composition

4. The MDL teams were formed from among the medical staff working in local hospitals and other medical institutions and seconded by the local public health authorities. The *team composition* varied depending on the programme focus: in 1991, for instance, it included a team leader (general practitioner), a radiological assistant operating a whole body monitor, two medical assistants operating medical analysers and a driver (also operating radiation monitoring equipment).

5. During the last 10 years of CHARP implementation the MDL team would include an endocrinologist, a physician and a general practitioner (each operating one ultrasound scanner), a laboratory technician and a driver. Other specialists would be sometimes added to the teams according to local needs. The local public health authorities provided general professional training and updates for the medical staff. During 1991–2004 the programme arranged for the regular annual exchange of experience among the MDL team members. After 2004 the exchange of experience was done on a country basis (separately in Belarus, Ukraine and the Russian Federation); the meetings often included sessions on PSS. The first MDL teams were trained by the German Red Cross in Hamburg in 1991; later some team members were also trained in Japan.

Equipment and operation

6. Depending on the focus of the programme, at different stages MDLs were equipped with a background gamma radiation monitor, a surface alpha/beta radiation monitor, a food monitor, a whole body monitor for caesium-137, a blood analyser, a urine analyser, ultrasound scanners for thyroid gland examination (from September 1993), biopsy equipment (from 2004), desktop and laptop computers for analysing the data, and printers.

7. In addition to performing full body scans and scanning for thyroid gland pathologies, MDLs in the first few years of the programme measured background radiation and food contamination, conducted general health checks, did blood and urine analysis, distributed information materials and provided limited psychological support. Later in the programme MDLs would also perform scanning for breast cancer.

8. Most of the time MDLs operated five days a week in remote rural areas, screening at the early stages of the programme up to 180 people daily. With the total target of 90,000 patients a year, on average each MDL performed around 15,000 screenings per year. It is estimated that in 1997–2002 the MDL teams were screening about 60,000 people annually; in 2003–2010, about 90,000, and in 2011, about 105,000. Because of the limited number of MDLs, on average they would be visiting the same settlement once every one to two years.

Costs coverage

9. Throughout the life cycle of CHARP the costs of purchasing and replacing the vehicles, equipment and disposable materials, as well as all the running costs (on average 25,000 Swiss francs per year per MDL), were covered by the CHARP international donors, mostly the donor National Red Cross and Red Crescent Societies. The MOH (Russia, Belarus and Ukraine) covered the salaries of the MDL medical staff working in the programme. However, the programme would also pay salary “supplements” in addition to that: on average the “supplement” would be equal to the monthly salary paid by the MOH. The health authorities would also cover the costs of professional training for the MDL medical staff. Despite numerous efforts to convince the local health authorities to contribute more, *some* of them accepted to cover “reagents for MDLs and some other running costs” only in 2008, three years before the end of the programme.