CHERNOBYL HUMANITARIAN ASSISTANCE AND REHABILITATION PROGRAMME

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On the eve of the tenth anniversary of the Chernobyl nuclear accident the Federation programme in the three affected countries is to be reviewed and its future orientation determined by the Second International Red Cross Chernobyl workshop, following an on the spot evaluation in February. Meanwhile the six Mobile Diagnostic Laboratories continue their screening of the population at risk, with results that increasingly confirm the link between the disaster and the growing number of cases of thyroid cancer in children.

The context

An explosion and fire at the Chernobyl Power Plant in Northern Ukraine on 26th April 1986, caused the world's worst-ever nuclear accident, spreading radio nuclides across a wide area of the Soviet Union, in the now independent republics of Belarus, Ukraine and the Russian Federation. The Red Cross Movement has been involved in the provision of assistance to the affected communities since 1986.

The Red Cross Chernobyl Humanitarian Assistance and Rehabilitation Programme began in 1990. From 1992 onwards, six Mobile Diagnostic Laboratories (MDLs), based in Gomel and Mogilev in Belarus, Kursk and Bryansk in Russia and Zhitomir and Rovno in Ukraine, have been screening background radiation in areas contaminated by the accident and conducting medical examinations of adults and children living in these areas. The Programme is managed by the International Chernobyl Co-ordinating Committee, consisting of representatives of the Red Cross Societies of Russia, Belarus and Ukraine and the Delegation of the International Federation of Red Cross and Red Crescent Societies in Minsk.

The MDLs measure the gamma, alpha and beta contamination of the air and surface soil by fall-out (dosimetric testing), and the radiation of home grown produce plus "gifts of the forest" (radiometric analysis tests). At the same time they screen adults and children for the clinical effects of radiation, providing medical information directly to patients and if necessary referring them for more detailed screening or specialist treatment. A Red Cross produced booklet, *Radiation and Nutrition*, gives the public additional practical information. Each MDL screens some 10,000 people a year -- giving an annual total of around 60,000.

The Red Cross programme is unique in that it takes services to the population, particularly those living in remote areas. For the majority of people examined the Red Cross screening is their first such check up since the accident. Also, although other organisations are collecting statistical and scientific information, the Red Cross programme is the only one providing immediate medical feedback and referrals to clients. It is thus able to dissipate many of the population's fears, which spring from a lack of reliable information.

Red Cross/Red Crescent action

The following table shows the number of examinations carried out by the MDLs from June to December 1995, the cumulative total for 1995 and the number of examinations carried out in January 1996.

MDL	MIRA	MINI-CONT	LB-200	WBM	QBC	Clinitec	Ultra Sound	Dr. and Endo exam
Gomel	452	374	562	5,701	4,611	4,948	6,125	5,327
Mogilev	696	595	579	6,148	5,359	3,280	5,375	7,329
Briyansk	5,115	146	17	3,929	3,292	5,382	4,929	4,929
Kursk**	818	637	283	2,747	1,748	0*	3,782	4,199
Zhitomir	4,327	0*	505	7,124	7,697	0*	6,313	7,084
Rovno	1,160	1,159	584	5,793	5,638	6,182	5,883	5,615
Total June-Dec95	12,568	2,911	2,080	31,442	28,345	19,792	32,407	344,483
Total 1995	19,505	6,261	5,727	54,324	52,211	28,923	53,617	56,390
Total January 1996	1,337	429	408	5,445	4,767	2,417	5,344	5,472

* Equipment not working
** Kursk MDL vehicle under repair in April

Explanation of examinations

MIRA	Mira-661 Background gamma radiation monitor
MINICONT	Surface alpha/beta radiation monitor
LB-200	Food Monitor
WBM	Whole Body Monitor for Caesium
QBC	Blood Analyser
Clinitec	Urine Analyser
Ultra sound	Ultrasound examination of the thyroid gland
Dr and Endo exam	General medical examination and analysis of data collected during examinations

Of the total number of people seen, over 50 per cent are diagnosed as ill and approximately 18 per cent are referred for further examination or treatment.

Ten years after the accident, the pathology of illness related to the dispersion of radio nuclides is becoming clear. Scientific and medical opinion agree that the rapid increase in the number of thyroid gland cancers in children is a direct result of the effect of the

Iodine 131 absorbed by the thyroid gland at the time of the accident. There has been no increase in the number of cases of leukaemia (an indicator of the effect of contamination by Caesium 137) but the scientific world agrees that the situation must be monitored for at least another five years. Many of the illnesses recorded by the MDLs are therefore more likely to be attributable to lack of medical care, bad nutrition, etc. -- an effect of the poor economies of the three affected countries.

The following table shows the results of testing for Gamma Radiation (by MIRA), tests by the Whole Body Monitor and LB-200 (Food Monitor) during 1995.

MDL	No. of Mira tests	Levels mSv/h	No. of WBM tests	No. of tests above normal limits	%	No. of LB-200 tests on food	No. of tests above normal limits	%
Gomel	757	0.06-0.9	9,730	29	0.3	2,026	114	5.6
Mogilev	1,058	0.07-0.55	9,580	152	1.6	1,023	94	9.18
Bryansk	7,110	0.05-0.96	7,057	431	6.1	87	10	11.5
Kursk	845	0.06-0.17	3,565	0	0	354	0	0
Zhitomir	7,806	0.07-0.99	13,722	155	1.1	1,174	42	3.6
Rovno	1,779	0.04-0.52	10,670	1,615	15.1	1,063	345	32.1

The expected stabilisation of background radiation continues. However, in regions where there is a high percentage of people with higher than normal levels of internal irradiation by Caesium 137 there are also a large number of food tests which register higher than normal limits (See above table, Rovno Region). The analysis of this data indicates that despite the length of time since the accident the food that people eat is still contaminated.

During the Autumn of 1995 ECHO funded milk powder and multivitamins for children were distributed in 47 districts of the six Regions. These products were distributed through Educational Establishments and reached a total beneficiary group of over 300,000. In addition ECHO funded the purchase of five additional food monitors and supplies required for the medical equipment in the MDLs.

Also in the Autumn of 1995, the six MDL vehicles received their first comprehensive service since 1992, funded by German Red Cross and undertaken by Mercedes Benz in Kiev.

The winter of 1995/96 has been the worst in recent years, with the first falls of snow in November and no sign of Spring at the end of March. Despite poor roads and cold living and working conditions, the teams have continued to work in the remotest regions of the three countries. Each MDL is staffed by six to eight medical personnel and technicians.

Programme Developments

The Chernobyl Programme underwent a first, in-house, evaluation in October 1993. This was followed by an International Seminar in Kiev in November 1993, which confirmed the findings and recommendations of the evaluation.

In February and March 1996 the Programme has undergone two evaluations, one evaluation by the Federation and the second by ECHO, on its own participation.

Proposals from the Federation evaluation include:

−expanding the screening by ultra sound for thyroid cancer in children

−introducing a psycho-social programme in order to help affected communities cope themselves with the problems of living in contaminated areas

−.Placing an emphasis on the long term sustainability of the programme, including handing over the day to day management of the programme to the three National Societies concerned.

The proposals will be discussed and future strategy agreed at the Second International Red Cross Chernobyl Workshop to be held in Gomel, Belarus, 16 - 20 April, the week before the tenth anniversary of the Accident. Participating Societies will attend, as will Professor Pierre Pellerin, an international expert on nuclear medicine who took part in the February evaluation, and Federation Secretary General George Weber, who attended the first Seminar in Kiev and who has a long-standing interest in the Programme. The WHO and ECHO have also been invited.

Contributions

See Annex 1 for details.
Although response so far to the 1996 Emergency Appeal is satisfactory, there is concern about the financial status of the Programme after the end of June.

Conclusion

In March 1996, at the first International Conference of the European Commission, Belarus, Russian Federation and Ukraine on the Radiological Consequences of the Chernobyl Accident, held in Minsk, Mr. R. Lewartowski of ECHO stated that "one must not forget the innocent victims of the Chernobyl Accident..... programmes should also be humanitarian and not just scientific". For ten years the Red Cross Movement has worked directly in affected communities with just this aim. If the necessary donor support is forthcoming it will continue such action for as long as the need is there.

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