



REVIEW

Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP), 1990–2012

15 March – 15 May 2015

“A Red Cross worker armed with counselling skills, a Geiger counter and appropriate publicity material could do much to help the population affected by the Chernobyl disaster come to terms with their new situation.”

League/IFRC Chernobyl Assessment Report
February 1990

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**REVIEW – Chernobyl Humanitarian Assistance
and Rehabilitation Programme (CHARP) 1990–2012
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REVIEW

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15 March – 15 May 2015

The International Federation of Red Cross and Red Crescent Societies (IFRC) is the world's largest volunteer-based humanitarian network. With our 190 member National Red Cross and Red Crescent Societies worldwide, we are in every community, reaching 160.7 million people annually through long-term services and development programmes, as well as 110 million people through disaster response and early recovery programmes. We act before, during and after disasters and health emergencies to meet the needs and improve the lives of vulnerable people. We do so with impartiality as to nationality, race, gender, religious beliefs, class and political opinions.

Guided by *Strategy 2020* – our collective plan of action to tackle the major humanitarian and development challenges of this decade – we are committed to saving lives and changing minds.

Our strength lies in our volunteer network, our community-based expertise and our independence and neutrality. We work to improve humanitarian standards, as partners in development, and in response to disasters. We persuade decision-makers to act at all times in the interests of vulnerable people. The result: we enable healthy and safe communities, reduce vulnerabilities, strengthen resilience and foster a culture of peace around the world.

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Abbreviations

Alliance	Alliance of Red Cross and Red Crescent Societies of the USSR
CEC	Commission of the European Communities
CHARP	Chernobyl Humanitarian Assistance and Rehabilitation Programme
CIS	Commonwealth of Independent States
DAC	Development Assistance Committee
DFID	Department for International Development, British Government
DRR	Disaster Risk Reduction
ECHO	European Commission Humanitarian Office
FAO	Food and Agricultural Organization of the United Nations
Federation	International Federation of Red Cross and Red Crescent Societies
IAC	International Advisory Committee
IACRNE	Inter-Agency Committee on Radiological and Nuclear Emergencies
IAEA	International Atomic Energy Agency
ICCC	International Chernobyl Coordination Committee
ICRC	International Committee of the Red Cross
ICRIN	International Chernobyl Research and Information Network
IDPs	Internally displaced people
IFRC	International Federation of Red Cross and Red Crescent Societies
ILO	International Labour Organization
League	League of Red Cross and Red Crescent Societies
MDL	Mobile diagnostic laboratory
MOH	Ministry of Health
NGO	Non-governmental organization
OCHA	Office for the Coordination of Humanitarian Affairs
OECD	Organisation for Economic Co-operation and Development
PSS	Psychosocial support
PSP	Psychosocial support programme
REMPAN	Radiation Emergency Medical Preparedness and Assistance Network
ToR	Terms of reference
ToT	Training of trainers
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNISDR	United Nations Office for Disaster Risk Reduction
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
USSR	Union of Soviet Socialist Republics
WHO	World Health Organization
WMO	World Meteorological Organization

Context/Acknowledgement

On 26 April 1986, the explosion of the fourth reactor of the Chernobyl nuclear power plant in the Kiev region in the north of Ukraine triggered the worst disaster ever of the civil nuclear industry. Vast areas of present-day Ukraine, Belarus and the Russian Federation were contaminated, hundreds of thousands of people were evacuated and millions still live in the affected areas. The activities supporting affected populations continue to this day. In 1990, at the request of the Alliance of Red Cross and Red Crescent Societies of the USSR (the Alliance), the IFRC, in partnership with the Red Cross Societies of Belarus, Russia and Ukraine, initiated the **Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP)**.

The purpose of the CHARP review is for the IFRC to build its understanding of and capacity to best support its work towards preparing for and responding to nuclear and radiological accidents, as well as other technological disasters. The review aims to:

- analyse IFRC experience in response to the Chernobyl nuclear accident
- identify key lessons and best practices
- assess the overall effectiveness and impact of CHARP
- document CHARP experience to preserve institutional memory within the IFRC.

This report has been researched and written by a team of external experts. Their work has been accompanied by a management committee which had the oversight of the research work done. The management committee consisted of Evgeni Parfenov, Head of Operations, IFRC Europe Regional Office; Mahesh Gunasekara, Health and Care Coordinator, IFRC Europe Regional Office; Martin Krottmayer, IFRC Senior Officer for Nuclear and Radiological Emergency Preparedness based in Geneva; and Scott Chaplowe, IFRC Senior Monitoring and Evaluation Officer based in Geneva.

The expert team consisted of Alexei Gartinski (Team Leader), Dr Jean-Pierre Revel and Nikolay Nagorny.

The CHARP review team would like to thank all those who contributed to the ultimate outcome of the CHARP review, in particular all Federation and National Societies' staff and volunteers who generously contributed their time to sharing their experiences, thoughts, ideas and suggestions with the team; the IFRC Europe Regional Office and IFRC delegations in Minsk and Moscow for organizing the field visits, and collecting and processing CHARP financial records; and the review management committee for its guidance, support and constructive feedback on the draft report.

This external review has been made possible through the financial support of the Japanese Red Cross and the Finnish Red Cross.



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**РАДИОАКТИВНОЕ
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СЕНОКОШЕНИЕ,
СБОР ГРИБОВ, ЯГОД,
ЗАГОТОВКА ДРОВ
ЗАПРЕЩЕНЫ!**

Executive summary

Introduction

1. On 26 April 1986, the explosion at the Chernobyl nuclear power plant in Ukraine triggered the worst ever disaster in the civil nuclear industry, resulting in the radioactive contamination of over 10,000 km² in Ukraine, Belarus and Russia and affecting over 4.1 million people. From 1986 to 1989 the Alliance of Red Cross and Red Crescent Societies of the USSR (the Alliance) supported the Soviet government in emergency response and recovery efforts, assisting in evacuation and subsequent voluntary resettlement, providing relief items, cash and “clean” food, and sponsoring summer vacations for children from the affected areas.

2. Following President Mikhail Gorbachev’s policy of openness (“glasnost”) in the Soviet Union and renewed public interest in addressing the consequences of the Chernobyl disaster, in 1989 the Alliance requested the IFRC to assist in assessing the situation in the affected areas. In 1990 the IFRC, in partnership with the Red Cross Societies of Belarus, Russia and Ukraine, initiated the Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP), which until 2012 assisted the affected populations to cope with the consequences of the disaster.

3. The *purpose* of the review is to help build the IFRC’s nuclear and radiological preparedness and response capacity by documenting and analysing 22 years of IFRC experience in response to the Chernobyl nuclear accident, assessing its effectiveness and impact, identifying key lessons and best practices, and documenting CHARP experience to preserve institutional memory within the IFRC.

4. The review *methodology* was based on the *desk review* of over 180 relevant documents; *interviews* with over 60 key informants from the IFRC, National Societies and UN agencies; and *field visits* to the affected areas in Ukraine, Belarus and Russia. The review team focused on assessing programme *effectiveness*, its *impact* on beneficiaries, the public health system and National Societies’ nuclear accident management capacity, and looked into programme *relevance* and *sustainability*.

Programme overview

5. From 1991 to 1993 CHARP focused on *monitoring radioactive contamination of food, the environment and individuals*, using mobile diagnostic laboratories (MDLs) to reach remote rural areas with limited access to medical assistance, and providing beneficiaries with accurate on-the-spot information on the level of radioactive contamination and protective measures to take. From 1994 to 1996 CHARP responded to the increase in thyroid gland pathologies by focusing on *thyroid gland screening*, and started distributing *multivitamins* and *milk powder* to children to address nutritional deficiencies. From 1997 to 2000 CHARP continued thyroid gland screening, distributed *medicines* (mostly L-thyroxin) to the thyroid gland patients and initiated a *psychosocial support* (PSS) project in Belarus. All programme activities were supported by providing beneficiaries with *information materials* about the consequences of radioactive contamination and recommendations for a healthy lifestyle in the affected areas. From 2001, despite numerous indications that the emergency phase was over, until 2012 CHARP continued the same activities.

6. By alleviating stress and anxiety caused by fear of radiation and socio-economic changes, all programme components contributed to improving psychological well-being of the affected populations: in this sense CHARP *implicitly “mainstreamed” PSS into its activities by 1991–1997*. The PSS project, initiated in 1997, contributed to developing National Societies’ capacities to provide PSS to beneficiaries; however, since the concept was new for all involved, from 2001 PSS activities focused on enhancing general psychosocial *awareness*, rather than providing direct PSS to individuals.

7. In 2015, almost 30 years after the Chernobyl disaster, due to the natural decay of radionuclides, the environmental situation in the least affected areas generally improved. The current level of contamination in most of the affected areas does not justify continuing assistance programmes specially addressing the consequences of radioactive contamination. The current technical and financial capacity of the public health systems in the affected countries allows them to adequately address most health-related needs. Apart from some limited activities, the Red Cross societies in Ukraine, Belarus and Russia currently do not have programmes aimed specifically at assisting Chernobyl-affected populations.

Programme implementation: key issues

8. The 1990 IFRC **needs assessment** correctly identified key issues (anxiety, fear and stress) and their origins (mistrust and lack of reliable information), and proposed realistic response measures, adapted to the context and National Societies’ capacity. The high quality of the assessment, *ensured by combining internal and external expertise*, contributed to designing a highly relevant response programme. Many of its conclusions and recommendations *are still relevant and can be applied* to designing National Red Cross and Red Crescent Societies assistance programmes in nuclear and radiological emergencies.

9. CHARP goals and **objectives** evolved over the years. However, most of the time the programme did not make a clear distinction between goals, objectives and activities, often referring to *activities as objectives*. While in 1990, 2000 such “activity focus” ensured flexibility in responding to emerging needs, in 2001–2012 it resulted in failure to reassess the relevance of CHARP activities, created a false sense of “always achieving the objectives” and led to focusing more on the process rather than the results.

10. From 1991 to 1992 CHARP **“delivery” strategy** was based on the concept of delivering CHARP services via MDLs. This allowed remote rural areas to be reached that would otherwise have limited (if any) access to medical assistance and reliable information, but had its limits in terms of costs and potential sustainability.

11. From 1992 CHARP implementation was directly managed by the IFRC delegation, with varying degree of involvement from the Federation secretariat. The *centralized management structure* with direct involvement of the IFRC secretariat in programme management, decision-making and mobilizing external technical expertise, applied in 1990–2000, contributed to an improved response to emerging needs. A more *decentralized* approach, used in 2001–2012, resulted in reduced technical and managerial support for CHARP, loss of strategic focus, the change in priority needs being missed, and threats to programme sustainability being overlooked.

12. During CHARP implementation the IFRC and the National Societies closely interacted with the **international scientific community and the UN agencies**. While in 1990–2001 external radiology and medical experts were directly involved in assessing needs, evaluating the programme and advising on programme strategy, cooperation during 2002–2012 was limited to the exchange of information. As a result the IFRC paid less attention to the conclusions of important UN analytical documents, which led to the underestimation of a shift from *assistance* to *rehabilitation* and an opportunity to revitalise CHARP and possibly continue it with a different focus being missed.

13. CHARP experience also showed that combining Red Cross *action-oriented* expertise with UN resources and capacity for *reflection and analysis* can **create powerful synergies**, allowing both to excel in assisting the affected populations. It also demonstrated that the International Red Cross and Red Crescent Movement is ideally positioned to “*bridge*” the gap between the *objective* scientific data about radioactive contamination and its consequences and the *subjective*, emotional perception of the risks and dangers by the population, governments, politicians, NGOs and media that will be common in nuclear and radiological emergencies.

14. Throughout CHARP implementation, National Red Cross Societies in the affected countries worked in close partnership with **public health authorities**. Medical equipment and supplies for MDLs, received through CHARP in 1992–2000, addressed important needs of the public health system, which severely lacked funding and equipment due to economic and political crisis. At the same time, since the three National Societies were well integrated into their public health systems, the governments *expected* them to mobilize international resources and take care of the tasks that the public health system either could not cover due to lack of funds, or considered a “secondary” priority.

15. CHARP had never had a viable **exit strategy**. Originally conceived as an emergency response programme expected to last for a few years only, after the collapse of the Soviet Union (1991) and ensuing public health crisis, CHARP had to continue beyond its initially planned time span. After 2003, when the public health systems regained their capacity, the possibility of gradually transferring the programme to the MOH in Russia, Belarus and Ukraine was much discussed within the National Red Cross Societies, but for a number of practical and emotional reasons this never materialized.

Review conclusions

16. CHARP *objectives*, aiming at improving health and providing effective medical, social and psychological assistance in Chernobyl-affected areas, generally remained **relevant** throughout the programme implementation. Programme *activities* and *outputs* were overall consistent with the programme objectives. Different programme components had varying degrees of relevance at different stages, but all contributed to the intended programme impact.

17. In terms of programme **effectiveness** nearly all programme *objectives*, as formulated at different times, were achieved. One – strengthening the operational capacity of the National Societies – was achieved partially, since most trained National Red Cross Societies staff retired after the programme ended. Most planned *activities* were successfully implemented. Because of the novelty of the PSS concept, providing individual psychosocial counselling was implemented at a smaller than anticipated scale.

18. CHARP made a substantial **impact on the health and psychological well-being of programme beneficiaries**. Hundreds of thousands of people in remote rural areas received *information* on levels of radioactive contamination and advice on avoiding radiation exposure and decontaminating food; timely diagnosis and treatment of *thyroid gland pathologies* improved patients' quality of life and saved hundreds of lives; thousands of people benefited from *psychological* support provided by trained Red Cross staff, nurses and volunteers.

19. CHARP's most important **impact on the public health systems** in the three affected countries was supporting them during the economic crisis following the collapse of the Soviet Union. CHARP provided public health with much-needed equipment and supplies for mobile diagnostics, and ensured delivery of important medical services (e.g., thyroid gland screening). Medical staff involved in CHARP accumulated substantial practical expertise in providing mobile health services in remote areas, detection of thyroid gland pathologies, using modern diagnostic equipment and screening techniques, and providing basic psychological support to patients.

20. CHARP had a significant positive **impact on the National Societies** in the affected countries. It *supported* their central and local structures and programmes during the political and economic turmoil of 1990s. National Societies acquired *experience* in managing a logistically sophisticated assistance programme, strengthened *cooperation* with public health authorities, and developed *contacts* with other National Societies and international organizations. CHARP introduced National Societies to the *concept of PSS*, and ensured their increased *visibility*, *positive image* and *recognition* locally and internationally. CHARP also created a *strong sense of pride, ownership and emotional attachment* to the programme among National Societies' and Federation staff and volunteers.

21. At the same time, *some opportunities to build on CHARP successes were missed*. In 2001–2012 National Societies failed to *innovate* and develop new activities in response to emerging rehabilitation needs. They continued relying on IFRC *external funding*, thus reinforcing the perception of National Societies as “providers” of international funds by public health authorities. CHARP had a limited impact on building National Societies, *nuclear preparedness and response* capacity beyond the awareness of nuclear and radiological risks and general disaster preparedness measures. Despite the issue being continuously raised at all levels, *CHARP has never reached financial sustainability*, the main reason being a certain lack of interest and commitment of the parties involved.

22. During its “life cycle” CHARP went through **two distinct periods**. During its *first decade of “growth and development”* (1990–2000) CHARP was effectively dealing with both *recovery* from the consequences of the Chernobyl accident and an *acute emergency*: the sudden collapse of the public health system following the break-up of the Soviet Union. The IFRC's experience in emergency response and managing other health emergencies proved essential in successfully dealing with the situation. CHARP demonstrated that a *professional emergency response organization, such as the IFRC, can successfully integrate new skills and apply its existing knowledge and expertise to responding to any kind of emergency, no matter how new, large, unexpected or technologically sophisticated*.

23. Around 2001–2002, when the situation in the affected areas started gradually getting back to normal, and health services and structures started functioning again, the “emergency” that CHARP successfully responded to during the first decade was effectively over. However, rather than critically reviewing its ongoing activities, during its second decade of “business as usual” (2001–2012) CHARP continued functioning as an emergency response programme, addressing still important, but secondary public health needs and priorities.



Summary of recommendations

R1. Monitoring radiation contamination in food and the environment using portable measuring equipment, with immediate feedback to beneficiaries, *could be provided* at both emergency and recovery phases following a nuclear or radiological accident (R1.1). Taking into account the increased portability and affordability of radiation meters, various *other* ways of implementing environmental monitoring in communities could be considered (R1.2).

R2. Medical screening for radiation-related or other health pathologies after a nuclear disaster can be a *viable assistance option* where public the health system lacks resources to address this need (R2.1). Since the exact kind of pathologies will be context-specific, it will be important to “*expect the unexpected*”, and to monitor the epidemiological situation by working in close contact with the public health authorities and scientific community (R2.2). Since medical screening is potentially a *long-term* medical intervention, the modalities for its implementation, patients’ follow-up, funding and phasing out should be agreed with the public health authorities at the inception stage (R2.4).

R3. Providing **psychosocial support** to the affected population by supplying information on the levels of contamination and recommendations on a healthy life-style in the contaminated areas *should be the primary focus* of National Red Cross and Red Crescent Societies’ assistance and recovery programmes (R3.1). The IFRC and National Societies should focus on *mainstreaming* PSS into all their activities (R3.2) and on *training* National Red Cross and Red Crescent Societies staff in basic PSS skills (R3.3).

R4. Distributions of **vitamins, micronutrients and milk** or milk powder to children in the affected areas – within the limits of IFRC policies – *can be a viable component* of National Red Cross and Red Crescent Societies’ nuclear and radiological assistance programmes (R4.1). Distributing **medicines** to patients who are part of National Red Cross and Red Crescent Societies’ screening or other medical assistance programmes *could be considered for a limited time*, provided the patients cannot obtain medicines from other sources (R4.2).

R5. Providing **information materials** on the levels of radioactive contamination, safe behaviour and a healthy life-style *should be an essential component* of any National Red Cross and Red Crescent Societies’ assistance programmes (R5.1). The key messages should be consistent with the messages delivered by other programme activities (R5.2). The *effectiveness* of different ways of providing information should be *continuously reassessed* during programme implementation (R5.3).

R6. Providing health services to the population in remote rural areas via the **mobile clinics/laboratories** “model” *might be considered as a short-term option* where affected populations have no access to health services (R6.1). It is imperative that potential benefits of applying this model are assessed against its costs and potential sustainability (R6.2).

R7. In designing National Red Cross and Red Crescent Societies’ response programmes in nuclear and radiological disasters, the IFRC and National Societies *must take into account* the findings, conclusions and recommendations of **scientific and UN analytical documents** (R7.1). National Red Cross and Red Crescent Societies are also ideally positioned to “*bridge the gap*” between scientific,

objective data and people's *emotional* perceptions of radiation-related risks and dangers (R7.2), provided they strictly adhere to the Fundamental Principles of the International Red Cross and Red Crescent Movement of *neutrality* and *impartiality* (R7.3).

R8. To allow CHARP staff and volunteers to release the feelings of frustration and “unfinished business” left by the abrupt way CHARP ended, the programme should be given **a decent closure** (R8.1) by for example organizing an *informal “get-together”* in connection with the 30th anniversary of Chernobyl (April 2016), where CHARP staff and volunteers could share their personal experiences and memories of the programme (R8.2). To honour their work a 20–30 minute’ “BBC-style” *documentary* about “people of CHARP” could be produced (R8.3). Any *new programmes* aimed at assisting Chernobyl-affected populations should be in line with the overall international focus on *rehabilitation* (R8.4).

R9. In *technological and nuclear disasters* the IFRC and National Societies should **focus primarily on the emergency phase** (R9.1), providing relief assistance during evacuation and resettlement at the *acute* phase, and alleviating radiation-related fear, anxiety and stress at the *post-event* phase (R9.2). Any programmes addressing *health effects* of such disasters should be planned from the beginning as *long-term* interventions (R9.3). Long-term recovery and rehabilitation needs can be best addressed by *traditional* Red Cross community-based and social support activities adapted to specific radiation-related concerns (R9.4).

1. Introduction

1.1 Background

24. On 26 April 1986, the explosion of the fourth reactor of the Chernobyl nuclear power plant in the Kiev region in the north of Ukraine triggered the worst disaster ever of the civil nuclear industry. Vast areas of Ukraine, Belarus and Russia were contaminated, hundreds of thousands of people were evacuated and millions still live in the affected areas. The activities supporting affected populations continue to this day.

25. In 1990, at the request of the Alliance of Red Cross and Red Crescent Societies of the USSR (the Alliance) the IFRC, in partnership with the Red Cross Societies of Belarus, Russia and Ukraine, initiated the *Chernobyl Humanitarian Assistance and Rehabilitation Programme* (CHARP). In the 22 years of its existence CHARP provided hundreds of thousands of beneficiaries with medical screening for thyroid gland pathologies, health education and PSS, distributed medical supplies, multivitamins and milk, and contributed to scientific cooperation on coping with the consequences of nuclear and other technological disasters.

26. With continued technological developments and the involvement of many states in nuclear and radiological activities, as well as an inevitable risk of technological accidents and disasters (such as the nuclear disaster in Fukushima Daiichi, Japan, in 2011), there is a pressing need to review and strengthen the International Red Cross and Red Crescent Movement's preparedness and response to nuclear and radiological accidents and other technological disasters. The IFRC General Assembly in 2011 called for the establishment of ways to facilitate the sharing of internal and external knowledge and evidence-based data and information, and to consolidate those knowledge resources to assist National Societies to plan better for nuclear emergency preparedness. The unique character of CHARP, including its longevity, highly technical nature and number of stakeholders involved, provides a valuable opportunity for the IFRC to learn from its experience.

27. With this in view the IFRC Europe Zone commissioned the present review to study, analyse and document CHARP experiences. The review contributes to overall international efforts to learn from the Chernobyl accident. Resolution A/68/L.21 of the 68th session of the UN General Assembly (December 2013), for instance, explicitly requested the UN coordinator of international cooperation on Chernobyl "to continue to collect, document and disseminate all experiences and lessons learned from tackling the human consequences of the Chernobyl nuclear accident for application and replication in other nuclear disaster situations and to fully utilize those experiences in the areas of disaster risk reduction, preparedness, response and recovery worldwide".

1.2 Review purpose and objectives

28. The *purpose* of the review is for the IFRC to build its understanding of and capacity to best support its work towards preparedness and response to nuclear and radiological accidents, as well as other technological disasters. The review aims at analysing IFRC experience in response to the Chernobyl nuclear accident, identifying *key lessons* and *best practices*, assessing overall *effectiveness* and *impact* of CHARP, and *documenting* CHARP experience to preserve institutional memory within the IFRC (see Annex 1 *Terms of reference* for details).

1.3 Methodology

29. The review methodology was based on the *desk review* of the secondary data and interviews with key informants. The review team examined over 180 key background documents (see Annex 3 *List of documents reviewed*). The document review formed the basis for producing a comprehensive timeline of significant CHARP events, actions and decisions (see Annex 5 *CHARP Timeline 1986–2015*).

30. During the *field mission* the team visited the main CHARP areas in Ukraine, Belarus and Russia, the National Societies' headquarters and Red Cross branches, and a number of medical centres specializing in treating radiation-related pathologies (see Annex 4 *Field visits itinerary*). In Belarus the team observed two Red Cross MDLs, one of them during the actual medical screening. The team *interviewed* over 60 key informants, including current and former leadership, managers and volunteers of the Ukrainian, Belarus and Russian Red Cross Societies, medical staff, government and public health officials, as well as officials of some of the key UN agencies (see Annex 2 *List of people interviewed*).

31. Following the terms of reference, the review team focused on assessing the programme on the basis of two out of five commonly used OECD/DAC evaluation criteria – *effectiveness* and *impact* – in particular the impact on health services in communities and the changes in the National Societies' nuclear accident management capacity. The team also felt it appropriate to address some aspects of programme *relevance* and *sustainability*.

32. In formulating recommendations the review team focused on identifying key lessons and best practices that could serve as a reference for Red Cross Red Crescent programme managers for making best-informed decisions in nuclear and radiological emergencies. It therefore decided *against* including any *generic* recommendations repeating the basics of professional emergency response management, any *context-specific* recommendations or any recommendations *not directly based on CHARP experience*.

33. The key *methodological challenges* for the review process can be summarized as follows:

- *Understanding the rationale behind decisions.* The rationale behind decisions and programming choices made in CHARP could only be understood by taking into account the information, analysis and technical means available to decision-makers at the *time* and in the *context* when these choices were made, in particular since many standards commonly applied today in humanitarian assistance were developed years after CHARP started.

- *Data availability and quality.* Nearly all statistical data in CHARP documents revealed a serious lack of consistency and substantial gaps. Therefore all quantitative data contained in the review are *estimates* based on the team members' emergency response and development experience and knowledge of the programme.
- *Emotional bias.* A strong sense of emotional attachment to the programme with feelings of ownership and pride in its achievements among nearly all IFRC and National Societies interviewed, inevitably resulted in a strong emotional bias in presenting the information, a certain defensiveness and difficulty to seeing what in CHARP could be done differently or improved.
- *Previous experience bias.* The review team also had a certain degree of potential bias related to previous experience with CHARP of two of its three members. Dr Jean-Pierre Revel participated in the programme during 1990–2000 as IFRC health adviser and a member of CHARP evaluation teams (1996, 1999). Mr Nikolay Nagorny worked in CHARP from 1990 as an assistant to the IFRC delegate, logistician and later CHARP coordinator. To reduce the potential bias each team member focused on the areas where they had least previous experience.

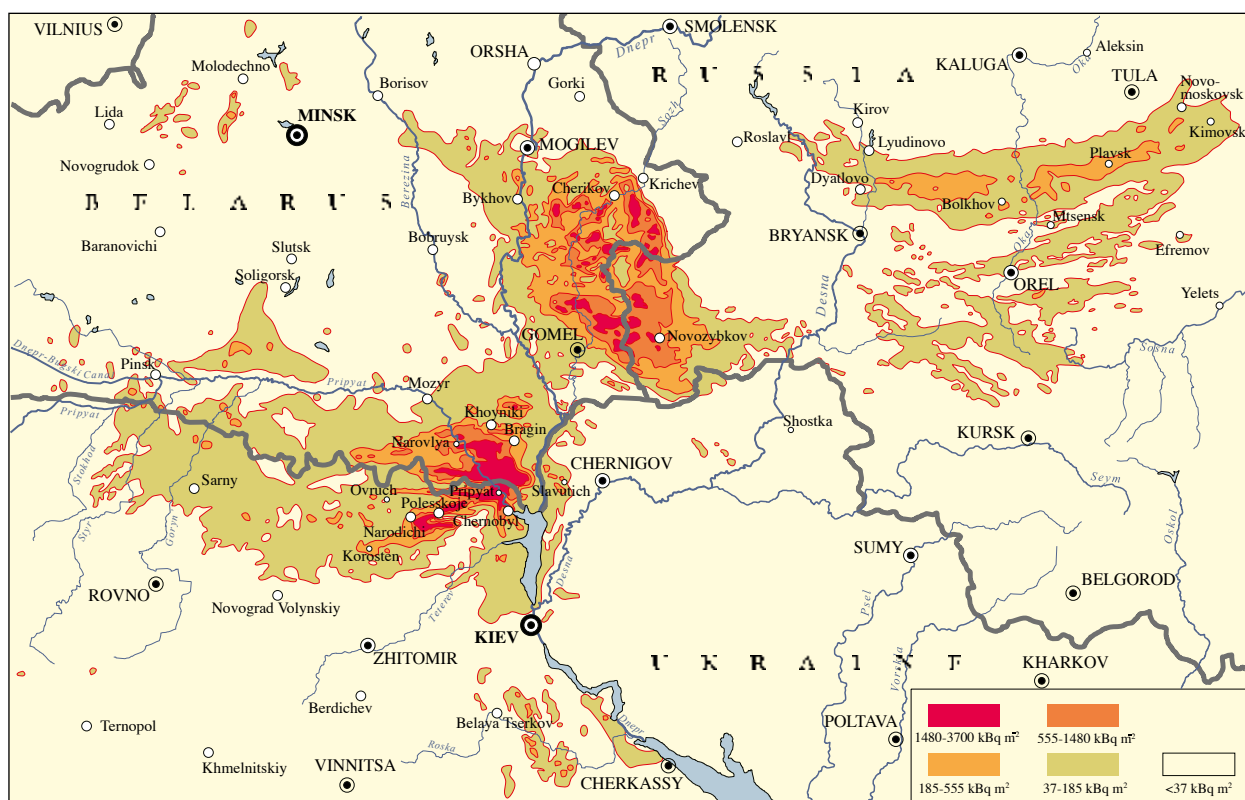
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Historical overview

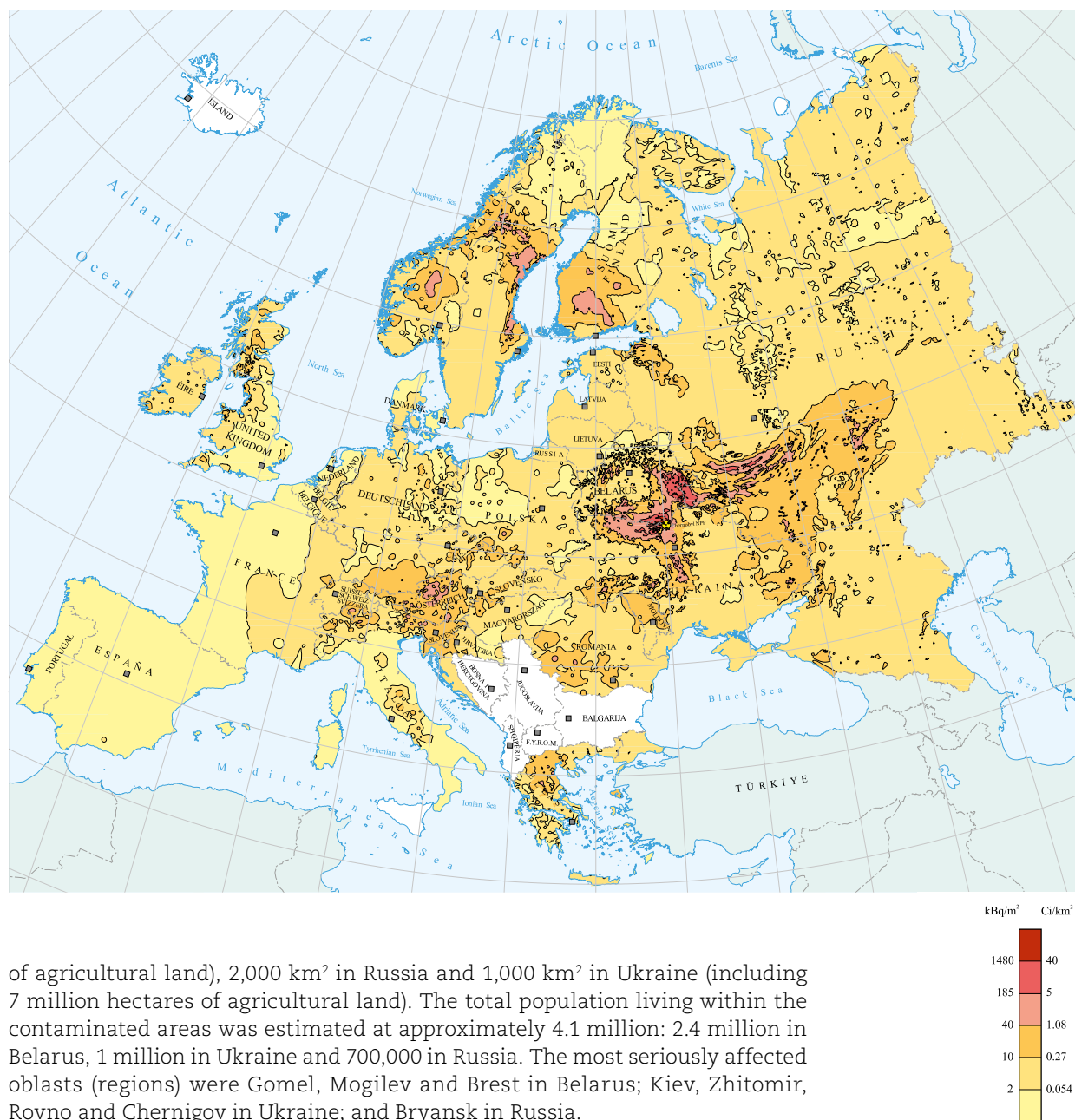
2.1 Chernobyl accident

34. On 26 April 1986, the fourth power unit of the Chernobyl nuclear power plant exploded, causing a fire and partial destruction of the nuclear reactor, followed by radioactive blowouts and subsequent contamination of large areas in Ukraine, Belarus and Russia. As a result of the accident, large quantities of different radionuclides were emitted. Contamination occurred in irregular patterns due to meteorological conditions. An area of approximately 10,000 km² was contaminated with more than 15 Ci/km² caesium-137 (Figure 2.1): 7,000 km² in Belarus (nearly a quarter of the whole territory and 22 per cent

Figure 2.1 Surface ground deposition of caesium-137 released in the Chernobyl accident



Source: UNSCEAR

Figure 2.2 Increased radiation dose across Europe, 3 May 1986

of agricultural land), 2,000 km² in Russia and 1,000 km² in Ukraine (including 7 million hectares of agricultural land). The total population living within the contaminated areas was estimated at approximately 4.1 million: 2.4 million in Belarus, 1 million in Ukraine and 700,000 in Russia. The most seriously affected oblasts (regions) were Gomel, Mogilev and Brest in Belarus; Kiev, Zhitomir, Rovno and Chernigov in Ukraine; and Bryansk in Russia.

35. The rapid spread of radioactive agents over the air directly affected a number of neighbouring countries (Figure 2.2). Within 24 hours of the accident, the radioactive release was registered in Poland, Sweden, Norway, France and the UK. In the three days following the accident, the radiation from Chernobyl was registered in the atmosphere of the whole northern hemisphere.

2.2 Emergency response and recovery, 1986–1989

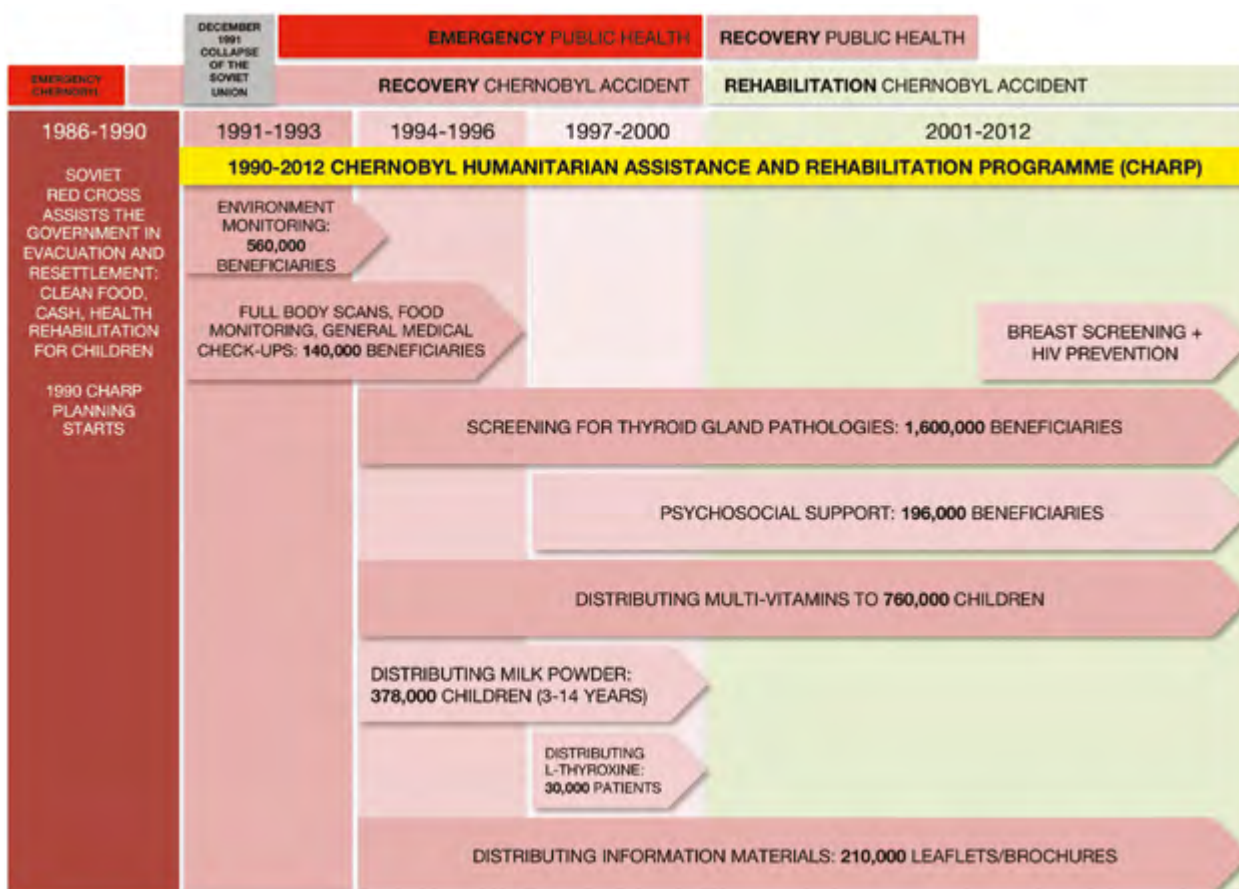
36. Within hours of the accident the government of the USSR took measures aimed at preventing any further blowouts. A mass evacuation followed: on 28 April, 45,000 inhabitants of the town of Pripyat' were evacuated, and by 5 May 1986 a total of 92,000 people had been moved from the worst-affected areas. Also within hours of the disaster, staff and volunteers of the Alliance were mobilized to provide basic relief supplies and cash assistance and to help public health services in prevention, health and hygiene efforts both in the disaster areas and among evacuees.

"The unprecedented nature and scale of the Chernobyl accident obliged the ... authorities to respond to a situation that had not been planned for and was not expected. Thus, many early actions had to be improvised."

International Advisory Committee (IAC), 1991

37. In 1987–1989 National Red Cross Societies in the three affected countries were mostly involved in assisting in voluntary resettlement. They purchased and distributed food from non-contaminated areas: twinning programmes between the affected and "clean" areas were set up and continued functioning well into the 1990s. Food was distributed to medical institutions, schools and kindergartens, and to elderly and disabled people with the assistance of Red Cross visiting nurses. National Societies also sponsored summer vacations for children from the affected areas. This proved to be essential non-medical assistance in dealing with the health consequences of accumulated doses of irradiation among the affected population.

38. In the late 1980s the "glasnost" ("openness") policy of Mikhail Gorbachev in the USSR resulted in the country opening up to international cooperation. After the Armenian earthquake (December 1988) the Soviet Union accepted international relief assistance for the first time since the 1920s. *This created a favourable context for starting international cooperation for Chernobyl.* In June 1989 the USSR accepted a team of World Health Organization (WHO) experts to assess the situation in the affected areas. In October 1989 the USSR requested the International Atomic Energy Agency (IAEA) to organize an international assessment of the consequences of the Chernobyl accident and the protective measures taken. That created momentum for the International Red Cross and Red Crescent Movement to act: in December 1989 the Alliance approached the IFRC (called the "League" at the time) for an initial needs assessment in the most affected areas in Ukraine, Belarus and Russia.

Figure 2.3 Summary CHARP timeline

(see Annex 5 CHARP timeline 1986–2015 for details)

2.3 Addressing emerging needs, 1990–2000

39. In January 1990 the IFRC assessment mission, led by Renny Nancholas (British Red Cross) and combining expertise in disaster management, radiological medicine, mental health and knowledge of the Red Cross, visited the affected areas. The mission suggested the assistance programme should focus on providing the affected population with accurate information on the level of radioactive contamination using portable radiation monitoring equipment; on counselling to help alleviate psychological problems; on supplying medical institutions with medical equipment; and on encouraging scientific cooperation. In June 1990 the League launched its first appeal for CHARP for 4,900,000 Swiss francs. Having received the first 350 ALNOR dosimeters supplied by the Finnish Red Cross, in December 1990, the National Society started radiological monitoring of the environment in the affected areas.

40. The start of CHARP implementation was marked by dramatic political events that culminated in the attempted coup d'état in the USSR (August 1991) followed by the dissolution of the Soviet Union, and the newly independent Ukraine, Belarus and Russian Federation forming the Commonwealth of Independent

States (CIS) in December 1991. This led to the dissolution of the Alliance in May 1992 and the creation of the three independent National Red Cross Societies in Ukraine, Belarus and Russia. The ensuing *economic and social crisis* severely affected both the capacity of the public health system to provide medical services to Chernobyl victims and the capacity of the newly independent Red Cross Societies in Belarus, Ukraine and the Russian Federation to assist them.

41. In 1991–1993, CHARP focused on monitoring radioactive contamination of food and the environment, and on measuring the level of individuals' contamination. Shortly after the programme started, the concept of installing measuring equipment on MDLs was adopted: this allowed a number of remote rural areas with limited access to medical assistance to be reached. The first six MDL vehicles, equipped with whole body gamma-ray monitors, Geiger counters and food contamination monitors, and blood and urine analysers, were deployed to the affected areas in Bryansk and Kursk (Russia), Gomel and Mogilev (Belarus), and Rovno and Zhitomir (Ukraine) in December 1991 (see Annex 8 *Mobile diagnostic Laboratories: operational details* and 4.3 CHARP “delivery” strategy).

42. In October 1993, CHARP was *evaluated* for the first time: the findings formed the basis for discussions at the *First International Red Cross Symposium* (Kiev, Ukraine, November 1993), where it was suggested that monitoring of radiation levels in the environment due to low levels of contamination and high costs should be stopped, that food monitoring and full body scanning should be continued, and that a psychological support programme should be started. To address nutritional deficiencies, the distribution of multivitamins, micronutrients and milk powder for children was added to the programme.

43. With the benefit of new medical data, in 1995 CHARP started screening for thyroid gland pathologies. The *second CHARP evaluation* (February 1996) confirmed the need to focus medical screening on detecting such pathologies in children; it also suggested the development of a psychosocial support programme (PSP) and that the longer-term sustainability of CHARP should be addressed. The *Second International CHARP Symposium* (April 1996, Gomel, Belarus) accepted the proposed changes.

44. From 1997, *screening for thyroid gland pathologies became the main focus of CHARP*. In June that year, six *lighter MDLs* equipped for thyroid gland screening replaced the old vehicles. Given the increasing number of patients diagnosed with thyroid gland pathologies that needed treatment, and the lack of required medicines due to the economic crisis, CHARP started distributing medicines (mainly L-thyroxin). In May 1997, the PSS pilot project started in Belarus.

45. By 1999, CHARP started experiencing funding difficulties. Funding constraints and the general sense among the international organizations that the emergency phase was over required CHARP priorities to be reviewed. In September 1999, the *third CHARP evaluation suggested focusing on the rehabilitation of affected communities*. The proposed change was in line with the evolving strategic priorities of the IFRC, as outlined in *Strategy 2010* and *Post-Emergency Rehabilitation Policy*, adopted by the General Assembly in October 1999.

2.4 Socio-economic rehabilitation, 2001–2012

46. Starting from 2002, the governments of the three affected countries, the UN and the international community recognized that the assistance to the populations affected by the Chernobyl disaster had entered the *rehabilitation* phase. In 2002, the UN ten-year strategy for Chernobyl was launched; in April 2004, the responsibility for UN coordination of Chernobyl activities was transferred from the Office for the Coordination of Humanitarian Affairs (OCHA) to the UNDP; and in 2006 the UN launched the *Decade of Recovery and Sustainable Development of the Chernobyl Affected Regions* (2006–2016).

47. During this period CHARP, however, continued implementing essentially the same activities that were started in the previous decade: no adjustments focusing specifically on addressing socio-economic rehabilitation needs were made. Throughout its last decade CHARP continued experiencing serious funding problems: a Netherlands Red Cross donation of 1 million euro in 2003 and fund raising efforts of the IFRC delegation allowed the programme to continue for a few years, but eventually the bulk of programme activities had to stop in 2012, due to lack of funds.

2.5 The situation in 2015

48. A 30km exclusion zone around the reactor is maintained, and vast areas of land and forest (e.g., between Gomel and Mogilev) are still under permanent or semi-permanent radiological monitoring, but by 2015, *29 years after the Chernobyl disaster, due to the natural decay of radionuclides the environmental situation in the least affected areas generally had improved*. Some restrictions on consumption of certain wild foods remain in force in the regions where the content of radionuclides in local food (mushrooms, wild berries, fish, game meat) exceeds the national permissible levels, and the limited radiological monitoring of foodstuffs and public exposure continues.

49. National budgetary support for contaminated regions is substantially reduced and integrated in “normal” government country programmes. By 2008 more than half of the population living in the affected areas were born *after* the Chernobyl accident, or had migrated from other regions; the migration of young people from rural areas to cities continues, thus affecting the demography of the contaminated areas.

50. According to the *UN Plan on Chernobyl to 2016*, the size of the contaminated territory continues to shrink, and the radiation safety of members of the public is ensured through compliance with national legislation and international safety standards. Overall, all international and most national sources reviewed agree that *the current level of contamination in most of the Chernobyl-affected areas no longer justifies the continuation of assistance programmes specially addressing the consequences of radioactive contamination*.

Table 2.1 Contamination levels by various radionuclides by zones

Isotope	Half-life period (T)	Fusion temperature (°C)	Weight/ 1 Curie (Ci)	Quantity emitted	Radioactivity and contaminated zones
Iodine-131	8 days	140	8×10^{-6} g	1.7kg	60 MegaCurie (= 2.2×10^{18} Becquerel) Global dispersion
Caesium-137	30 years	450	10^{-2} g	25kg	2.5 MegaCurie (= 9×10^{16} Becquerel) 3 affected republics
Strontium-90	28 years	1,400	7×10^{-3} g	1.7kg	0.25 MegaCurie (= 9×10^{15} Becquerel) 80% in 30km zone
Plutonium-239	23,000 years	3,800	16 g	80kg	Practically 100% in the 30km zone

Source: IFRC Evaluation Report, 1996

The current level of contamination in most of the Chernobyl-affected areas no longer justifies the continuation of assistance programmes specially addressing the consequences of radioactive contamination.

51. The current state of the *public health* system in the three affected countries has drastically evolved since 1990s. While previously only a few specialized radiological medical research and treatment centres existed in the capitals, now such centres work in all the affected oblasts. All medical institutions involved in diagnosing and treating radiation-related pathologies visited by the review team were equipped with the latest state-of-the-art diagnostic facilities, on a par with those used in most European countries. Some of the centres operate their own MDLs, though less frequently. All institutions visited have a number of research, cooperation and training projects with medical centres and clinics in Europe (France, Germany, Poland, Switzerland), and receive research grants from international organizations on a regular basis.

52. The main mortality causes in the affected areas are cardiovascular diseases, oncology (lungs, digestive system, breast, skin) and accidents/trauma. *Mortality due to thyroid gland cancer is insignificantly low*, and mortality and its causes among the evacuees from Chernobyl-affected areas are currently similar to the local population. *Accessibility to health services in remote areas is still a problem*, mostly due to economic and demographic factors (unemployment, low salaries, migration etc.). Though public health authorities occasionally operate mobile laboratories, they focus on local health priorities (oncology, gynaecology, TB, cardiology); the public health systems in the affected countries do not invest in developing mobile clinics/screening models. Though there are certainly gaps, *the current state of the public health systems in the Chernobyl-affected countries allows them to address most health-related needs of the affected population without any significant external support*.

The current state of the public health systems in the Chernobyl-affected countries allows them to address most health-related needs of the affected population without any significant external support.

53. Since the funding for CHARP stopped in 2012, most of its activities came to a halt. Some oblasts continued occasional briefings and training on PSS, and the distribution of information materials and multivitamins, usually donated by local businesses. Two National Red Cross branches – Lutsk (Ukraine) and Mogilev (Belarus) – continue operating MDL vehicles, though at a much smaller scale. The MDL based in Lutsk is used twice a month, mainly as a transport vehicle for the ultrasound scanning equipment and the medical team; it focuses on thyroid gland screening and general health check-ups. Two MDLs in Mogilev conduct thyroid gland and breast cancer screening, mostly at the request of local enterprises. The staff interviewed showed a lot of enthusiasm and commitment to the programme: as one of them said, “When our car finally breaks down, either the work will stop altogether, or we’ll just transport the scanner using something else, and the doctors will take the bus.”

54. Apart from the examples above, Red Cross societies in Ukraine, Belarus and Russia currently do not have programmes aimed at specifically addressing the needs of the populations living in the Chernobyl-affected areas: whenever any assistance is provided, it is done within the framework of other ongoing activities or projects.



MDL in Lutsk, Ukraine



3. CHARP components

3.1 Environmental, food and full body monitoring

Services provided	Period	Estimated service recipients
Measurements of <i>background radiation</i> and surface contamination of objects	1990–1993	561,000
Measurements of locally produced <i>food</i> for radiation contamination	1990–1996	139,000

55. Providing measurements of background radiation and surface contamination of objects, as well as measurements of locally produced food for radiation contamination (dosimetry), was the starting point of CHARP. The 1990 IFRC assessment report concluded that radiologically the main problem was the contamination of the soil, and there was a need for regular radiological monitoring of locally produced food. It noted that various restrictions resulted in serious alterations to people's lifestyles and diet, and that the lack of reliable information and secrecy caused serious distrust towards the authorities and general anxiety among the affected population.

"The lack or unreliability of information, particularly in relation to levels of radioactivity ... is one of the crucial factors in the widespread anxiety about the poorly understood consequences of radiation exposure."

1990 IFRC assessment report

56. To address the identified needs the report recommended "the provision of accurate information to people directly affected by the accident ... and the provision of simple, easily usable, rugged and reasonably priced handheld Geiger counters to Red Cross workers in order to help allay many of the fears of the affected population."

57. The first 350 ALNOR dosimeters were delivered in October 1990. Choosing more expensive foreign-made radiation meters (300 Swiss francs per unit) over the locally produced ones was deliberate: in the atmosphere of distrust towards anything (information, equipment, measurements) coming from the state authorities, people in the affected areas trusted the information more if it was obtained using foreign-made equipment. Environmental monitoring using portable radiation meters was also well suited for the Red Cross, since staff and volunteers could easily operate the equipment after short basic training.

58. The radiation monitoring started in December 1990, first via dosimetry points established at large settlements and operated by the local Red Cross staff and volunteers. Since the 1990 assessment report also suggested “regular radiological monitoring of milk, meat, vegetables and other locally grown produce”, food monitoring started in July 1991, when the first 30 LB 200 food monitors were received. In addition to stationary dosimetry points, measurements were performed by the MDL teams: this enabled a number of remote rural areas to be reached that would otherwise have had limited access to reliable information. Radiological monitoring was provided directly at the household level, with beneficiaries receiving immediate feedback about the level of contamination. Environment radiation monitoring continued until the end of 1993, when it became clear that no significant increase in radioactivity levels was registering any more; food monitoring continued for another three years and was stopped by the end of 1996.

In nuclear and radiological emergencies, providing accurate information about the consequences of disaster becomes one of the key forms of assistance, a key “benefit” for the affected populations.

59. *The importance and impact of the dosimetry programme component can hardly be overestimated.* In nuclear and radiological emergencies, providing accurate information about the consequences of disaster becomes one of the key forms of assistance, a key “benefit” for the affected populations. The Red Cross monitoring of the radionuclide contamination of the environment, food and human beings effectively provided beneficiaries with indirect psychological support as early as 1991–1993, thus contributing to alleviating the mental health impact of Chernobyl, which was identified as “the largest health problem caused by the accident to date” by the Chernobyl Forum Expert Group on Health only in 2006. It also contributed to the awareness among Red Cross workers about the importance of addressing psychosocial needs, thus laying the ground for a subsequent PSP. As the 1990 IFRC assessment report pointed out: “A Red Cross worker armed with counselling skills, a Geiger counter and appropriate publicity material could do much to help the population affected by Chernobyl disaster come to terms with their new situation.”

International Red Cross and Red Crescent monitoring of the radionuclide contamination of the environment, food and human beings effectively provided beneficiaries with indirect psychological support as early as 1991–1993.

Recommendation 1

R1.1 Monitoring the levels of radiation contamination in food and the environment using simple portable measuring equipment/counters and providing immediate feedback to beneficiaries directly contributes to the alleviation of fear and anxiety, reducing the level of stress and improving the mental health of the affected populations. Wherever such needs exist, and are not sufficiently addressed by governments and other actors, the *National Red Cross or Red Crescent Societies should consider providing such radiation monitoring services at both emergency and recovery phases* following a nuclear or radiological accident.

R1.2 Taking into account the technological advances since the 1990s (including the increased portability and affordability of commercially available radiation meters), *other ways of implementing environmental monitoring could also be considered*, such as distributing portable dosimeters to the affected communities, providing training courses for communities, and focusing on food monitoring and full body scans only.

3.2 Medical screening

Services provided	Period	Estimated service recipients
Examination of people for internal irradiation (full body scans)/health checks/ blood and urine analysis	1992–1997	401,000
Thyroid gland screening	1993–2011	1,605,000

3.2.1 Screening for individuals' contamination

60. In 1992–1997, CHARP medical screening focused on *measuring the level of individuals' contamination using full body scanning equipment* installed on MDLs. These focused on rural areas, though occasionally provided screening in cities and towns (e.g., screening students who came to towns from contaminated areas).

61. Since little was known at the time about the consequences of radiological contamination, the data collected through whole body monitoring complemented those collected during the environmental monitoring (mainly food items) to assess the overall level of contamination of people and its consequences for health. When higher than acceptable levels of internal irradiation (over 10kBq) were detected, the patients were referred to the specialized radiology centres for treatment. Wherever locally produced food, milk or forest products were identified as the potential source of contamination, recommendations and advice on protective measures were provided on the spot.

3.2.2 Screening for thyroid gland pathologies

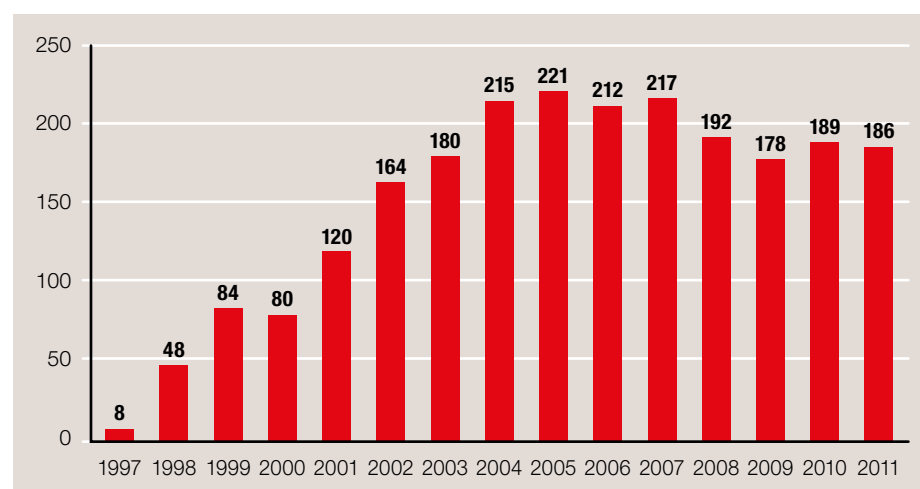
62. The possibility of an increase in thyroid gland pathologies due to irradiation was raised soon after the disaster. The 1990 assessment report noted “a widespread conviction among the population and medical profession that there are substantial increases of pathological changes in the thyroid due to radiation exposure”. In March 1991, the IAC mentioned a possible future increase in such pathologies. In December 1992, the first cases of thyroid gland cancer among children were reported in Belarus.

63. In response to these reports it was decided to *add screening for thyroid gland pathologies to MDL medical examinations*: in September 1993, all MDLs were equipped with ALOKA 250 (Japan) ultrasound scanners. The second CHARP evaluation (February 1996) suggested focusing all medical screening on detection of thyroid gland pathologies, primarily among children (0–18 years at the time of the accident). This recommendation was confirmed by all subsequent programme evaluations (1999, 2002, 2005). *From 1996 and until the end of the programme, medical screening focused mainly on detecting thyroid gland pathologies.*

64. During programme implementation, MDL teams gradually perfected their screening techniques, upgraded ultrasound equipment and generally improved the quality of screening. This resulted in increased detection of various thyroid pathologies (Figure 3.1). Once pathology was detected, the patient would be referred to the local diagnostic centre or dispensary, where most MDL teams were based. Whenever the patient visited the respective centre for confirmation of the diagnosis and was subsequently treated, the centre would inform the Red Cross MDL team, and the data would be recorded in the Red Cross database.

65. Though the benefits of thyroid gland screening are often presented as early detection of thyroid gland cancer, the number of confirmed cancer cases among those screened was relatively small, ranging around 60–80 per year (0.03–0.09 per cent of the total number screened) in 1994–2001 and increasing to 160–220 cases per year (0.18–0.24 per cent) in 2002–2011. Thyroid gland cancer, if undetected, develops very slowly and rarely leads to the patient’s death, even

Figure 3.1 Number of thyroid cancer cases detected by CHARP Red Cross MDLs, 1997–2011



Source: CHARP Programme Proposal 2012

if untreated: during the whole of CHARP there were only two cases of deaths from thyroid gland cancer among the patients identified through screening. According to health experts from the Bryansk Radiology Centre, the number of deaths from thyroid gland cancer in the oblast remained stable after 1980, despite a growing number of cases detected.

66. While detecting cases of thyroid gland cancer was important, the *main benefit of CHARP medical screening was detecting numerous thyroid gland pathologies*. Unlike thyroid gland cancers, their incidence was very high: in 2002–2011 the MDL teams would consistently detect some thyroid gland pathology in almost half of all the screened patients. According to the data quoted in the 2001 IFRC appeal, the average incidence was more than 16 times higher than in countries not affected by the Chernobyl disaster. The number of cases of thyroid gland cancer among Chernobyl-affected children (1,418) in 1986–2010 was as high as the number of similar cases registered all over the world.

The main benefit of CHARP medical screening was detecting numerous thyroid gland pathologies.

67. It is currently internationally recognized that the *increased number of thyroid gland pathologies is directly related to the effect of radiation*. Most importantly, since the thyroid gland directly influences the functioning of most other body systems and is often connected with depression or other psychological disorders, detecting and treating thyroid gland pathologies directly contributed to improving the general and psychological well-being of the patients in the affected areas. *Focusing medical screening on detecting thyroid gland pathologies, therefore, directly addressed one of the important health needs of the populations affected by the consequences of the Chernobyl disaster.*

3.2.3 Other types of screening

68. In 2008, screening for *breast cancer* was added to the list of MDL medical examinations. It covered the female population aged 35–40 (i.e. those who were 10–15 years old at the time of the Chernobyl accident), who could be diagnosed using ultrasound scanners (for older women mammography was recommended). Though it proved relatively successful (many of those diagnosed with thyroid gland pathologies were also diagnosed with various breast pathologies), such screening was not done on a large scale, mostly because no direct connection with the consequences of the Chernobyl accident was confirmed.

69. On occasion, at the request of the health authorities, screening for other types of health problems would be performed on a small scale. However, re-orienting CHARP medical screening towards detecting *other pathologies* (e.g. cardiovascular disease or other cancers listed as the main causes of mortality in the affected areas) has never been considered, possibly because they could not be directly attributed to the effects of radiation.

Recommendation 2

R2.1 *Medical screening for possible radiation-related or other health pathologies after a nuclear disaster can be a viable assistance option for the Red Cross Red Crescent, in particular in situations where the public health system lacks resources to address this need, or has to allocate limited resources to addressing other health priorities.*

R2.2 *The exact kind of pathologies to be screened for will be determined by the specificity of the affected area, the endemic pathologies prevailing, the nature of the radioactive contamination and a number of other context-specific factors. It will therefore be important to work in close contact with the public health authorities and the scientific community, and to “expect the unexpected” – that is, be open to dealing with any new emerging pathologies.*

R2.3 *Since radiation-related health pathologies can manifest in significant numbers years after the emergency, it would be important to closely monitor the situation to identify an appropriate time for medical screening.*

R2.4 *Taking into account the fact that medical screening is potentially a long-term medical intervention, the modalities for its implementation, patients’ follow-up, funding and eventual phasing out should be clearly agreed with the public health authorities at the inception stage.*

3.3 Psychosocial support

Services provided	Period	Estimated service recipients
Direct PSS	1997–2011	190,000

3.3.1 The need for PSS

70. In 1990, the IFRC was one of the first international organizations to recognize that “one of the most damaging aspects of a disaster such as the Chernobyl accident relates to the *psychological problems* apparent in the population affected by such a disaster”. The IAEA and WHO affirmed that “psychosocial effects of a radiation emergency can far outnumber any direct effects” only in 1995, and it was not until 2006 that the Chernobyl Forum Expert Group on Health concluded that “the *mental health impact of Chernobyl is the largest health problem caused by the accident to date.*”

In 1990, the IFRC was one of the first international organizations to recognize that “one of the most damaging aspects of a disaster such as the Chernobyl accident relates to the psychological problems apparent in the population affected by such a disaster”.

71. Recognizing that both CHARP medical staff and Red Cross workers lacked the basic psychological support skills, the 1990 assessment report suggested holding workshops aimed at “imparting simple counselling skills to members of the medical profession dealing with people affected by the accident and active Red Cross nurses/volunteers”. The first IFRC plans of action in 1991–1992 proposed addressing psychological problems by, among other things, “upgrading psychological centres with appropriate diagnostic and treatment equipment; organizing consultations at regional and district level; organizing self-assisting groups guided by Red Cross social workers; organizing seminars on stress reduction and psycho-hygiene; and training Red Cross workers in close cooperation with psychological institutions”.

3.3.2 Starting PSS in CHARP

72. In the initial years of CHARP, however, the plans for recommended psychosocial support programme (PSP) related services were not implemented. This reflects a general trend at the time: while the international community recognized the importance of stress and anxiety among the Chernobyl-affected populations, in 1990–2000 it focused more on the material, medical, scientific and technical aspects of assistance.

“In attempting to assess the consequences of the Chernobyl accident, there is no currency conversion by which we can equate a given number of radiation induced cancer victims with the hundreds of thousands of people whose lives have been disrupted or who are afflicted by anxiety, depression and the physical consequences of stress. What is certain, however, is that much less scientific effort and media attention has been devoted to the latter.”

Professor Terence Lee, international conference “Health Consequences of the Chernobyl and Other Radiological Accidents” (Geneva, November 1995)

73. This issue was raised again in 1996, when the CHARP evaluation proposed a pilot PSS project, focusing on “developing the capacity of National Societies’ staff and volunteers to provide adequate, reliable and understandable information” to the affected population. In April 1997, a CHARP PSS coordinator was recruited, and in May 1997, the PSS pilot project officially started in Belarus with the first training of trainers (ToT) workshop in Gomel.

3.3.3 PSS activities

74. Recognizing that National Societies’ staff and volunteers had little knowledge and experience in providing PSS, the PSS pilot project was to be implemented in three stages: (1) preparing National Societies to provide the affected communities with PSS by creating the core of PSS trainers/instructors who would then train Red Cross workers, visiting nurses, volunteers and community social workers in the basics of PSS, (2) providing the affected population with psychosocial services and (3) “spreading PSS” to other National Societies’ programmes.

75. The first stage (1997–2001) focused on *training* Red Cross and medical staff. Approximately 200 Red Cross staff and volunteers including 50 trainers were trained in 20 workshops, and 80 per cent of trained instructors subsequently conducted PSS workshops and training courses for Red Cross staff, visiting nurses and MDL personnel. In later years, refresher courses on specific subjects were conducted once every one or two years. The curriculum included basic stress management and PSS techniques, and was based on the reference

documents from the Danish Red Cross/IFRC Reference Centre for Psychological Support created in 1993.

76. Red Cross and MDL staff, visiting nurses and volunteers then applied the new knowledge and skills in their daily work. The psychological support was provided when beneficiaries visited the Red Cross medico-social centres, were visited at home by Red Cross nurses, or were screened by the MDL staff. From 2001, on there seemed to be an increased focus on public lectures and brief seminars, as well as publishing articles, radio interviews and TV presentations on various aspects of PSS.

3.3.4 Limitations of PSS implementation

77. Implementing the PSS component within CHARP, however, turned out to be more complicated than expected. When CHARP started, *providing PSS to disaster victims was a new and emerging type of humanitarian activity everywhere in the world*. The international and Red Cross Red Crescent experience in designing and implementing PSPs in different cultures was therefore quite limited.

78. *The concept of PSS was equally new for the National Societies in Ukraine, Belarus and Russia*. As pointed out in the PSS assessment report (June 1998), the overall approach based “on the hierarchical structure” in the former Soviet Union was still “very present in mentalities”. The programme, which aimed at “giving back to each individual his autonomy, his capacity to make choices and be determinate”, was new and often difficult to understand. In addition, the *three National Societies were not sufficiently familiar with the concept of community work* “on the basis of the community itself, and not on the basis of a top-down hierarchy”, which was essential for the proposed PSS to be effective.

79. In view of the above, *choosing a ToT approach for PSS was somewhat overambitious*. While ToT works well when a set of simple, easily transferrable skills is to be imparted, PSS skills, even at the basic level, are neither “simple” nor “easily transferrable”. As a result, a substantial part of the CHARP PSS activities had to focus on training and then “retraining” the Red Cross programme staff in basic stress management and PSS techniques. However, even with this additional input many of the trained staff preferred focusing on enhancing awareness about psychosocial needs and basic stress and anxiety self-management via lectures, seminars, articles and interviews, rather than working directly with individuals.

3.3.5 PSS as a separate programme component

80. It is important to note that since 1991 *all CHARP components effectively provided or contributed to providing indirect psychological support to the affected population*. Monitoring of environmental radiation and food, medical screening, and the distribution of information materials, vitamins and milk powder, in one way or the other, contributed to alleviating stress and anxiety caused by the fear of radiation and the effects of socio-economic changes among the affected population. *In a way, in 1991–1997 CHARP “mainstreamed” psychosocial support into all its activities long before the terms “mainstreaming” and “psychosocial support” were coined*.

In 1991–1997 CHARP “mainstreamed” psychosocial support into all its activities long before the terms “mainstreaming” and “psychosocial support” were coined.

81. Introducing PSS as a pilot project in 1997 was a logical continuation of previous activities and the way to explicitly acknowledge the importance of PSS. Subsequent training of CHARP staff and volunteers in basic PSS skills contributed to an increased awareness of the importance of PSS and enhanced their knowledge and skills in providing psychological assistance to beneficiaries. The skills and techniques learnt also helped Red Cross workers to deal with their own stress and burnout, thus contributing to the overall effectiveness of their work. In this sense the PSS project successfully supported other programme components.

Recommendation 3

R3.1 *Providing psychosocial assistance to the affected population by supplying accurate information on the levels of contamination and recommendations on a healthy lifestyle in the contaminated areas should be the primary focus of Red Cross and Red Crescent assistance and recovery programmes following nuclear and radiological disasters. Both need to be provided continuously at emergency, assistance and recovery stages.*

R3.2 *Rather than designing separate “psychological support programmes”, the IFRC and National Societies should focus instead on mainstreaming PSS into all their assistance and/or recovery activities. In other words, all interventions are to be designed in such a way that they contribute to reducing fear, anxiety and stress and generally improving the psychological well-being of the affected populations. At the recovery stage all activities should in particular aim at helping people feeling better about themselves and their environment, restoring hope and the “will to live”, and facilitating a return to “normality”, and so on.*

R3.3 *To support the PSS mainstreaming it is also recommended that all the Red Cross and Red Crescent staff involved are trained in dealing with psychological issues following a nuclear emergency. The training should aim at providing them with the necessary PSS skills required to provide such assistance directly, if and when needed, enhancing their awareness of the importance of PSS issues and their understanding of how all their other programme components contribute to providing PSS to beneficiaries.*

3.4 Distribution of multivitamins, milk powder and medicines

Services provided	Period	Beneficiary estimates
Distribution of <i>milk powder</i> to children living in contaminated areas	1993–1999	378,000
Distribution of <i>multivitamins</i> to children living in contaminated areas	1993–2011	721,000
Providing <i>L-thyroxin and other drugs</i> , mainly to patients with thyroid gland pathologies	1998–1999	31,000

82. Distributing *multivitamins*, generally containing vitamins C, D and B-group with iron, folic acid, stable iodine and micronutrients, and *milk powder* to children started in 1993, when it was established that poor diet caused by excessive restrictions on food consumption in the affected areas contributed to a number of health-related problems. The vitamins and milk powder were mostly distributed through children's institutions, such as kindergartens (for children 3–7 years old) and schools (7–14 years old). Milk powder was distributed until 1999, while vitamin distribution continued until the end of the programme.

83. The actual effectiveness and impact of vitamin and milk distribution was not assessed during the CHARP implementation: the programme basically operated on the assumption that “milk and vitamins are good for you”. Also, in the former Soviet Union, milk was traditionally distributed to workers in industries considered “harmful” to health, including nuclear power plants, so people associated milk distribution with “being taken care of” and believed that milk could accumulate and eliminate any harmful substances from the body. While the strictly medical effectiveness of vitamin and milk distribution can be and often is contested, *providing vitamins and milk in the CHARP context effectively contributed to the alleviation of stress, anxiety and fear among the affected populations, in particular the children's parents*, thus effectively tripling the number of actual beneficiaries of this component.

Providing multivitamins and milk in the CHARP context effectively contributed to the alleviation of stress, anxiety and fear among the affected populations, in particular the children's parents.

84. *Medicines*, predominantly L-thyroxin for thyroid gland patients, were distributed during 1998–1999, mostly due to the severe economic crisis and resulting inability of many patients diagnosed with respective pathologies to obtain the required medicine locally. Medicines were distributed through visiting nurses, directly to medical institutions that followed the patients' cases, and sometimes directly by MDL teams. The distribution was discontinued when the acute needs were generally addressed.

85. Medicine distribution within the framework of CHARP responded to short-term identified needs, and stopped, once these were generally addressed. This is certainly a good example of the programme flexibility and attentiveness to needs during the first decade of its implementation. The programme did not limit itself to assisting patients with diagnosis, but effectively provided timely follow-up and assistance whenever the beneficiaries could not obtain it from the public health service.

Recommendation 4

R4.1 Taking into account their psychological support value and the specific context of a particular nuclear or radiological emergency, the distribution of vitamins, micronutrients and milk powder to children in the affected areas – within the limits identified by the IFRC policies – can be considered as a viable component of Red Cross Red Crescent nuclear and radiological response programmes.

R4.2 Whenever patients, in particular those who are part of medical screening or other International Red Cross and Red Crescent Movement medical assistance programmes, can not obtain prescribed medicines from public health or commercial sources, the Red Cross Red Crescent might consider supplying them with the required medicines for a limited period of time.

3.5 Distribution of information materials

Services provided	Period	Leaflets and brochures distributed
Distribution of <i>information materials</i> (brochures) on protection from radiation	1994–2011	210,000

86. Providing accurate information to people directly affected by the accident was identified as the priority task in the 1990 needs assessment. “Facilitating printing and distribution of accurate information to the population on the effects of contamination and advice on the most appropriate behaviour in such an environment” was included in the first and the second CHARP plans of action (1990–1992) and continued until the end of CHARP in 2012.

“Since doubts still exist in the minds of many people as to the credibility of information provided by the government, the information provided by the Red Cross might be more readily accepted.”

League/IFRC Assessment Report, February 1990

87. Information was disseminated in various forms, the most common being brochures and leaflets, public lectures, articles in the local press, interviews on local radio and television, and training and information sessions for Red Cross staff and volunteers, medical staff and teachers directly involved in dealing with the affected populations. Information materials were also distributed during environmental and food monitoring, and medical screening. The contents included general information about the risks and health consequences of radioactive

contamination and advice on a healthy lifestyle in the contaminated areas. One brochure dealt specifically with radiation and nutrition; another focused on the specific needs of pregnant women. Later in the programme the contents focused more on healthy lifestyle and nutritional safety, in particular in relation to locally picked mushrooms and berries.

88. Though CHARP records only provide data on the number of brochures produced, since information materials were regularly distributed during other programme activities, in one way or another most beneficiaries of other programme components received some information materials from CHARP. On the basis of the indirect evidence and feedback from interviews, it appears that *dissemination of information materials on the consequences of radioactive contamination and on safe behaviour and a healthy lifestyle in the contaminated areas did help address the vital need to reduce stress and anxiety both directly and by reinforcing the messages delivered by other CHARP activities.*

Recommendation 5

R5.1 Providing the population affected by the consequences of nuclear or radiological disaster with accurate and timely information on the levels of radioactive contamination, safe behaviour and a healthy lifestyle in the contaminated areas should be considered as an essential component of any International Red Cross and Red Crescent Movement assistance, recovery and rehabilitation programmes after such disasters.

R5.2 The key messages contained in the information materials should be consistent with and reinforce the messages delivered by other programme components and activities: any data about the levels of radioactive contamination should be presented in units actually used during environmental monitoring, information on a healthy lifestyle in the contaminated areas should be consistent with that provided by medical staff during medical screening, and so on.

R5.3 To ensure that the messages reach the intended audience and produce the intended impact, it is important to *check the target audiences' understanding of the messages, and to continuously review and reassess the effectiveness of all forms of information distribution during programme implementation.*



4. Programme implementation: key issues

4.1 Initial needs assessment

89. While there were other nuclear accidents before (e.g., Chelyabinsk/Kyshtym/USSR, 1957, 1967; Three Mile Island/USA, 1979), the Chernobyl disaster was totally new for all involved in terms of its nature, scale, and the immediate, mid-term and long-term consequences. Managing assistance, recovery and rehabilitation in the aftermath of such an emergency required highly sophisticated scientific and technical knowledge. Since the IFRC's secretariat at that time lacked sufficient information on previous nuclear accidents, and had no direct experience in dealing with such emergencies, it was decided to bring together *an interdisciplinary group of experts* to assess the situation.

90. The assessment team analysed in detail the radiological/ecological, socio-economic, informational, psychological and medical aspects of the situation. Its conclusions and recommendations laid the foundation for the key CHARP components: environmental, food and full body monitoring, distribution of information material and PSS. Subsequent needs assessments (November 1990, January–February 1991) and evaluations (1993, 1996, 1999) confirmed most of its findings.

91. A number of *factors* contributed to the success of the initial needs assessment. The team combined expertise in disaster management, radiological medicine, mental health and knowledge of the Red Cross, and provided a *good balance of technical and management expertise*, as well as both *Red Cross and non-Red Cross perspective*. The assessment covered not only the needs but also the *origins* of these needs: it explicitly stated that anxieties, stress and fear originated from the lack of information and misunderstanding the effects of radiation on human health. The measures proposed to address the needs were *realistic and adapted to the context and capacities* of the National Societies.

“We defined extremely well what to do. We knew the needs. We had top-notch expertise, and we set the standards high.”

IFRC top manager in the 1990s

92. In addition to providing all the information needed to design a successful programme, the assessment was also *forward-looking*. Noting that “many large

scale disasters result in much stress related behaviour among victims ... and that the Red Cross/Red Crescent Movement as a whole has paid little attention to these important aspects”, the mission affirmed that “it is imperative that the League gives serious thought to the possibilities of incorporating meaningful responses in this sphere of activity to its disaster response plans”.

93. The high quality and professional standards of the initial 1990 IFRC needs assessment *substantially contributed to the design of an appropriate and highly relevant International Red Cross and Red Crescent Movement response programme*. The international community, including UN agencies specializing in health and radiological issues (WHO, IAEA), promptly recognized the importance of its findings: the assessment’s conclusions on health effects unrelated to radiation exposure, including improved screening and changed patterns of living and dietary habits, as well as the origins of psychological stress and anxiety, were quoted in, among others, the IAC report in 1991. *The assessment’s conclusions and recommendations are still relevant and can be applied to the design of successful programmes in case of nuclear and radiological emergencies.*

The high quality and professional standards of the initial 1990 IFRC needs assessment substantially contributed to the design of an appropriate and highly relevant International Red Cross Red Crescent response programme. The assessment’s conclusions and recommendations are still relevant, and can be applied to the design of successful programmes in case of nuclear and radiological emergencies.

4.2 Formulating programme objectives

94. The evolution of programme goals and objectives reflects different phases of CHARP implementation, as well as new trends in humanitarian assistance. In 1990–2001 the IFRC, like many other humanitarian agencies, was less structured in formulating programme objectives. During this period CHARP documents did not make clear distinctions between goals, objectives and activities, often referring to *activities* (e.g., “providing medical screening”, “providing accurate and immediate information”, “monitoring gamma radioactivity”, “distributing milk powder, vitamins and micronutrients”) as *objectives*.

95. With the increased international demand for accountability, from 2003 CHARP documents started explicitly formulating the programme *goal* (“The health of the population affected by the Chernobyl nuclear disaster is improved”) and *objective* (“Effective medical, social and psychological assistance is provided to targeted individuals in the six regions affected by the Chernobyl nuclear disaster”). They also started mentioning *expected results* (e.g., “deaths from thyroid cancer prevented”, “stress and anxiety is reduced”, “immunity is improved”). Indicators, however, were identified only for medical screening as the annual target number of patients.

96. *The way CHARP objectives were formulated had direct implications for programme implementation.* At the early “learning” stage (1990–2000), focusing on activities allowed for a certain flexibility and quick response to the emerging needs without the constraint of a formal framework. However, at later stages (2001–2011), presenting activities as objectives *focused managers’ thinking on implementing*

activities without always checking whether they still fitted into the “bigger picture”, i.e., what that particular activity contributed to. Even when the goal and objective were explicitly formulated in 2003, the goal (“health is improved”) was *generic* enough so that any health-related activity would contribute to it. The objective (“effective medical, social and psychological assistance is provided”) was more a description of a “generalized” activity, thus reinforcing the “activity-centred” approach. That eventually contributed to missing the change in priority needs after 2001–2003, when governments and international organizations moved from *emergency* assistance to recovery and *rehabilitation*.

97. Since programme activities would almost always be implemented, presenting activities as objectives also created a *false sense of always “achieving the objectives”*. While large quantities of information brochures were distributed (i.e., the “false” objective of “distributing information materials” was achieved), programme managers were not encouraged to verify whether the information had any impact on changing behaviours, reducing anxieties or improving people’s well-being (i.e., whether the “true” objective was achieved).

98. Finally the “activity-centred” approach led to focusing more on the *process* rather than the *result*. In the 1998 appeal “*continuation of the PSS*” itself was listed as the main (!) objective; the 1997 appeal included “*campaigning for long-term sustainability*” as one of the objectives. The objectives also reflected the PSS component becoming more “*inward-focused*”: in 1999 five out of six PSS objectives in the annual IFRC appeal referred to Red Cross staff, rather than the affected population, as the main beneficiaries.

The way CHARP objectives were formulated had direct implications for programme implementation. Presenting “activities” as “objectives” focused managers’ thinking on implementing activities without always checking whether they still fitted into the “bigger picture”, i.e. what that particular activity contributed to. That eventually contributed to missing the change in priority needs after 2001–2003, when governments and international organizations moved from emergency assistance to recovery and rehabilitation.

4.3 CHARP “delivery” strategy

99. Choosing the strategy for delivering CHARP services was as much a learning process as any other aspects of the programme. The 1990 assessment identified the key *need* to reduce radiation-related fear, stress and anxiety among the affected populations. It outlined *four “categories” of assistance* to address the need: providing accurate information on radiation and protection from contamination, using counselling skills to help alleviate psychological problems, providing Geiger counters to Red Cross workers, and encouraging closer cooperation between scientists. The report effectively summarized this as follows: “A Red Cross worker armed with counselling skills, a Geiger counter and appropriate publicity material could do much to help the population affected by the Chernobyl disaster come to terms with their new situation.”

“A Red Cross worker armed with counselling skills, a Geiger counter and appropriate publicity material could do much to help the population affected by the Chernobyl disaster come to terms with their new situation.”

1990 IFRC Assessment Report

100. In 1991–1992, the concept of installing the measuring and medical equipment on a “mobile platform” to reach remote rural areas was adopted; that led to the start of the MDL service, which eventually became the backbone of the CHARP delivery mechanism. *Installing measuring and diagnostic equipment on MDL vehicles allowed remote rural areas to be reached that would otherwise have limited access (if any) to medical assistance and reliable information.* Choosing the MDL “model” for service delivery in CHARP therefore clearly filled in the gap, in particular at times of economic difficulties during 1991–2000.

101. At the same time, providing medical services via MDLs *had its limitations, mainly in terms of costs and sustainability.* The combined initial investment (each of the first MDL vehicles cost around 500,000 Swiss francs), costs of replacement and running costs (estimated at around 25,000 Swiss francs per year per vehicle) made the prospects of handing MDLs over to the ministries of health or Red Cross societies in Ukraine, Belarus and Russia problematic.

102. Though ministries of health in all three affected countries valued the work of the Red Cross MDLs and recognized it as one of the “models” for providing health services in remote areas, they continued to address health needs in rural areas by investing in the development of the system of *stationary* rural health centres (a number of such centres were renovated and/or rebuilt by the governments of Russia, Belarus and Ukraine during the massive Chernobyl resettlement programme in late the 1990s), showing little interest in supplementing them by creating and maintaining mobile health services.

Recommendation 6

R6.1 Wherever there is a need to provide timely and accurate information on the levels of radioactive contamination of the environment, food and people, as well as medical screening to the population in remote areas with otherwise limited access to health services, *choosing mobile clinics or MDLs as a “delivery model” might be considered as part of a short-term medical emergency response strategy.*

R6.2 It is imperative that any National Society examining this option following a nuclear or radiological accident *should assess its potential benefits against the costs and, most importantly, potential sustainability* of mobile medical services, taking into account the general strategy of the public health authorities for providing health services in remote areas.

During the CHARP implementation there was an attempt to replicate the CHARP MDL “model”. In June 1993, at the initiative of the Russian Red Cross, one MDL was transported from Kursk to the Chelyabinsk region (Russia) to assess radiological and health consequences of the nuclear accidents at the Mayak Nuclear Reprocessing Facility (1957, 1967). The MDL conducted radiological monitoring and medical screening for one month, which helped identify various general health pathologies and reduce radiation-related stress and anxiety among the residents of the affected area. Since no major environmental anomalies were detected, the MDL was redeployed back to CHARP. This proved to be an expensive and logistically complicated exercise, and CHARP MDLs were not deployed outside the Chernobyl-affected areas again. However, Red Cross experience in running mobile medical services during CHARP has been recently recognized: in January 2015 the Ukrainian Red Cross, in cooperation with WHO and ECHO, started a Mobile Medical Clinics project, inspired by the CHARP MDL “model”, to provide short-term medical assistance to internally displaced people (IDPs) from Eastern Ukraine.

4.4 “Centralized” versus “decentralized” management

103. Following the first CHARP appeal (June 1990), the first IFRC delegate was deployed in Kiev to assist the Alliance in environmental monitoring, further clarifying needs and programme planning. After the CHARP cooperation agreement was signed between the Alliance and the League secretariat (April 1991), the IFRC appointed a technical delegate to assist the National Societies in technical aspects of environmental and food monitoring, and in making the first MDL vehicles operational. Thus, *initially the IFRC was providing technical assistance to the Alliance in starting CHARP, rather than directly managing it.*

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104. In the early 1990s the IFRC secretariat directly managed most of its emergency response programmes, working through or in cooperation with the National Red Cross and Red Crescent Societies in the host countries. It followed a “vertical” operational management structure, whereby the overall programme management, including key decision-making, operational support, contacts with donors, fundraising, monitoring and reporting, was directly managed by the regional department in Geneva (Europe department for CHARP). The IFRC delegation in the field (Kiev and Minsk for CHARP) would implement programme decisions taken by the regional department and ensure operational management of the assistance programme in the field.

105. Following the collapse of the Soviet Union in 1991, the dissolution of the Alliance, the ensuing economic crisis and the creation of three independent National Societies with a substantially reduced programme implementation capacity, *it became important to ensure that the programme continued and to maintain its coherence as a single programme (rather than three separate ones).* In May 1992 the International Chernobyl Coordination Committee (ICCC), comprising the chairpersons of the Russian, Ukrainian and Belarus National Red Cross Societies, was formed to ensure that the three National Societies continued working “as a single entity”. The ICCC, however, was more of a “coordination” rather than a “management” body, so in line with its practice of directly implementing emergency response programmes, *from 1992 the IFRC – through its delegation in the field – started directly managing CHARP implementation.*

106. For technical issues (e.g., medical, logistics, procurement, communications, training) regional departments would draw on the expertise of the relevant technical departments, all based in Geneva. In CHARP the Europe department worked very closely with the health department: both would bring in outside technical expertise if and when necessary. Since little was known at the time about the impact, consequences and appropriate actions in case of a nuclear disaster, *during its first decade CHARP relied heavily on external medical and radiological expertise. This approach largely determined the programme’s success in correctly identifying needs and addressing them adequately.*

During its first decade CHARP relied heavily on external medical and radiological expertise. This approach largely determined the programme’s success in correctly identifying needs and addressing them adequately.

107. Around 2001–2002 a major change in the IFRC strategic direction from directly implementing and managing programmes to *supporting* National Societies in programme implementation led to *a number of changes in the operational management structure, which had a direct impact on CHARP*. In 2001–2004 the role of regional departments in managing programmes, coordinating input from technical departments and providing management support to the IFRC delegations was gradually reduced; most programme decision-making was delegated to the field level. However, *the reduced support from the secretariat resulted in a certain loss of the overall strategic perspective and reduced attention to changing needs and priorities*.

108. Following decentralization of the secretariat, from 2007–2008 part of the operational support functions was transferred to the regional zone offices (Europe Zone Office for CHARP). However, despite the efforts of individuals, the new structure apparently had difficulty in providing the same level of overview, technical and operational guidance, and support as before. As one of those interviewed put it, “from 2005 we were completely disconnected from Geneva and its resources”.

109. From the CHARP experience, it appears that *a more centralized management structure* with the active involvement of the IFRC secretariat in Geneva and its regional and technical departments in programme management and decision-making, applied during the first decade of the programme implementation, helped to better identify needs and respond to them, which allowed the response to be promptly adjusted as new needs arose. A more *decentralized* approach, applied from 2005, allowed for initiative and freedom of choice. However, it resulted in *reduced technical, operational and managerial support* to CHARP from the IFRC secretariat. This led to loss of strategic focus, missing newly emerging needs and overlooking threats to programme sustainability at a time when they could still have been addressed.

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4.5 Interaction with the UN and scientific community

110. “Encouraging closer cooperation between scientists and other interested parties within and outside the Soviet Union” was one of the four categories of assistance proposed in the 1990 assessment report. CHARP interacted with the scientific community at local and international levels. Interactions with hospitals providing MDL staff and medical centres involved in treating radiation-related pathologies *at the local level* were mainly technical and operational: National Societies and medical institutions worked as partners, each supplying its inputs to the programme. CHARP contributed to scientific cooperation by participating in various medical and scientific conferences, supporting them financially and logistically, and by providing access to the data collected during radiation monitoring and medical screening.

111. At the *international* level during 1990–1999 CHARP established direct *personal* contacts with renowned international medical and radiological experts, seeking their technical advice on identifying and addressing the needs of the affected population. From 2001, contacts with individuals gave way to a more *organizational* interaction. During this period the IFRC and the National Societies maintained regular contacts with UN agencies (WHO, IAEA, UNDP, UNICEF) by participating in inter-agency meetings, conferences, workshops and seminars. *Most of these contacts, however, focused more on sharing information and avoiding duplication in the field, rather than aiming at creating synergies between CHARP and the programmes of the UN agencies.*

112. Interestingly, many IFRC and National Societies' managers interviewed seemed to underestimate the importance of the UN's analytical and scientific work, while overemphasizing the value of the "practical, direct and operational" action of the Red Cross in the field. As one of them put it, "the Red Cross in CHARP was not talking, it was doing". *CHARP, however, clearly demonstrated that insufficient attention to the scientific community and UN analysis, in particular in the case of technological disasters, could adversely affect programme implementation.*

113. Nearly all UN analytical reports on the consequences of the Chernobyl accident identified very accurately the changes in needs over time: the need to focus on *rehabilitation* of the affected areas, for instance, had been mentioned in various UN reports since 2002. All of them also clearly formulated priority areas for possible new interventions, many of which were within the capacity for the IFRC and the National Societies to implement. Some – e.g., dissemination of information on the consequences of the Chernobyl accident and practical advice on healthy and productive lifestyles – were similar to those CHARP was involved in in 1990–1997. Both the IFRC and the National Societies were aware of this information through their regular contacts with UN agencies. However, little was done to reassess and/or readjust CHARP activities on the basis of the findings and recommendations of UN reports.

114. In nuclear and technological disasters the IFRC and National Societies would generally focus on providing assistance, rather than producing technical, scientific and medical analysis of the consequences of such disasters. Therefore the IFRC should rely more on UN analytical and technical documents to inform its programming. *Combining Red Cross action-oriented strength with the UN and scientific community resources and capacities for reflection and analysis can create powerful synergies, allowing both to excel in assisting populations affected by the consequences of nuclear and radiological disasters.*

Combining Red Cross action-oriented strength with the UN and scientific community resources and capacities for reflection and analysis can create powerful synergies, allowing both to excel in assisting populations affected by the consequences of nuclear and radiological disasters.

115. CHARP experience also showed that the *gap between the objective scientific data and the subjective, often exaggerated perception of danger and needs by the population, local governments, politicians, NGOs and the media is likely to be common for all nuclear and radiological emergencies.* This was first identified in the 1990 assessment report: "It appears that people attribute all their complaints to radiation, clinging to this explanation which is in line with their worst expectations." The very first CHARP component – measuring the levels of radioactive contamination in the environment, food and humans – was effectively providing objective information to address these perceptions.

116. In fact, the Red Cross and Red Crescent Movement is ideally positioned to “bridge the gap” between the scientific, objective and rational data on the existing levels of radioactive contamination and its health consequences and people’s subjective emotional perceptions of such risks. Working together with the scientific community and international organizations, the IFRC can access a wealth of scientific analysis and information. Working through National Societies’ volunteers it can translate this information into emotionally acceptable explanations supported by concrete assistance, thus addressing people’s concerns.

The gap between the objective scientific data on the existing levels of radioactive contamination and its health consequences and the subjective, often exaggerated, perception of danger and needs by the population, local governments, politicians, NGOs and the media is likely to be common for all nuclear and radiological emergencies. The Red Cross and Red Crescent Movement is ideally positioned to “bridge this gap”.

Recommendation 7

R7.1 Taking into account the highly technical nature of assistance in the case of nuclear and radiological emergencies and the considerable resources and capacity of the UN specialized agencies to mobilize international technical expertise and produce high-quality analysis of the consequences of and needs resulting from such accidents, the IFRC and National Societies must take into account the findings, conclusions and recommendations of UN analytical documents in designing their response programmes and adjusting implementation strategies to address newly emerging needs in a timely way.

R7.2 In responding to nuclear and radiological emergencies the International Red Cross and Red Crescent Movement should focus on “bridging the gap” between scientific, objective data and people’s subjective, emotional perceptions of radiation-related risks and dangers. As both a grass-roots and an international organization, the Red Cross Red Crescent is ideally positioned to provide the affected population with information that is based on scientific and objective data, and is presented in a way that addresses irrational fears and anxieties among the affected population.

R7.3 Since nuclear and radiological disasters and their consequences, being essentially man-made, are highly politically charged, to succeed in this role the International Red Cross and Red Crescent Movement should avoid taking sides and must strictly adhere to its Fundamental Principles, in particular those of neutrality and impartiality.

4.6 Interaction with public health authorities

117. During CHARP implementation the IFRC delegation and the Ukrainian, Belarus and Russian Red Cross Societies worked very closely with various medical institutions and public health authorities, mostly at the oblast level. The implementation of each programme component was closely coordinated with local departments of health: memoranda of understanding on CHARP were signed with the ministries of health in Ukraine and Belarus; in Russia, relations were formalized at the Bryansk oblast level.

118. Both parties worked in *true partnership*, each operating in its area of competence. In most CHARP components, with the exception of PSS, the health authorities focused on providing *software* (personnel, training, research) while the IFRC and National Societies took care of the programme *hardware* (vehicles, medical equipment, medicines, vitamins, consumables, fuel, maintenance, logistics, finance, administration).

In most CHARP components the health authorities focused on providing software (personnel, training, research) while the IFRC and National Societies took care of the programme hardware (vehicles, medical equipment, medicines, vitamins, consumables, fuel, maintenance, logistics, finance, administration).

119. The ministries of health in Ukraine, Belarus and the Russian Federation in the early 1990s received extremely limited funding from the state budget, had insufficient and ageing medical equipment, and badly lacked supplies of medicines and consumables (another Federation programme in the former Soviet Union, “Solidarity”, focused on supplying basic medicines, such as *aspirin*, to children’s hospitals in Russia). Since the ministries of health had no access to other international funding at the time, medical equipment and supplies for MDLs received through CHARP addressed important needs of the public health system. In this respect the Red Cross societies were truly operating as *auxiliaries* to their governments.

120. The Soviet Red Cross, one of the few non-governmental organizations in the Soviet Union, *had always worked very closely with the public health system*, delivering first-aid training, providing medical and social care for the elderly, and promoting blood donation. Nearly all chairpersons in oblasts, as well as the Soviet Red Cross leadership, either had a medical background or were former officials of the ministries of public health. It is therefore natural that they brought with them to the Red Cross their public health expertise and knowledge of the system, which both facilitated their contacts with the public health authorities and shaped their preferences and choices.

121. Supporting the ministries of health with equipment and supplies, filling the gaps not covered by the public health system and mobilizing resources for it through the IFRC was therefore “organic” for the three National Societies. In a way, even *before CHARP started, all three National Societies were well integrated into their respective public health systems, with all the advantages and inconveniences that this involved*.

Even before CHARP started, all three National Societies were well integrated into their respective public health systems, with all the advantages and inconveniences that this involved.

122. The external environment and the National Societies' auxiliary relationship with the authorities had a direct impact on the issue of transferring the responsibility for CHARP to the health authorities which was often raised during the last years of the programme's implementation. The latter welcomed the services provided by the Red Cross, but took them "for granted". *The Red Cross societies in the three affected countries were expected both to provide these services and to fund them from their own or International Red Cross resources.* Consequently the public health authorities showed little interest in funding Red Cross activities from the state budget, and the National Societies were *reluctant* to raise this issue with their ministries of health or to actively pursue it.

Public health authorities expected the Red Cross societies in the three affected countries both to provide various health-related services in the affected areas and to fund them from their own or International Red Cross resources.

4.7 Exit strategy

123. *CHARP never had a viable exit strategy. In fact, it was originally conceived as an emergency response programme expected to last for only a few years.* In 1990 the Soviet Union, despite its economic and social problems, had a functioning public health system, fully capable of absorbing additional technical inputs (equipment, vehicles, medicines, expertise) provided by CHARP. When in December 1991 the Soviet Union unexpectedly ceased to exist, and the public health capacity in the three affected countries was substantially reduced, the programme had to continue beyond its initially anticipated time span. As one of the interviewees said, "a few years later we were all trapped".

CHARP was originally conceived as an emergency response programme expected to last for only a few years.

124. From 2002, when the public health systems started functioning, the issue of a possible exit strategy was raised again. The 2002 CHARP evaluation called for "continuing discussions with authorities on increasing their financial contribution to CHARP". However, the first agreements with the regional health authorities, signed in 2004, simply formalized an already existing division of roles and responsibilities, without explicitly mentioning the possibility of handing over the programme to the ministries of health. It was only in 2008 that the local health authorities in *some* oblasts agreed to cover "reagents for MDLs and *some* running costs". After that and until the funding for CHARP stopped in 2012, the situation basically remained unchanged.

The reasons for the absence of an exit strategy in CHARP were both rational and emotional.

125. *The reasons for the absence of an exit strategy in CHARP were both rational and emotional. Developing an exit strategy effectively meant the end of CHARP for all those involved in it. Rationally that meant the loss of funding, jobs and income for the CHARP and Red Cross staff involved. Emotionally it meant the end of something “excellent” that people “owned”, identified themselves with and “invested into” over the years. As one of the CHARP managers put it, “National Society leadership and all involved in the programme were very proud of it. It was not about simply getting the funding and paying for their jobs; money was not that important. It was a profound event in their lives.” Losing that would be painful indeed.*

“National Society leadership and all involved in the programme were very proud of it. It was not about simply getting the funding and paying for their jobs; money was not that important. It was a profound event in their lives.”

CHARP manager in the 2000s

126. It is not surprising therefore that many among the CHARP managers and National Society leadership developed a sort of “denial” of the fact that CHARP would end one day, in particular since for 22 years there was plenty of evidence to the contrary: the programme was indeed “saved” a few times by an unexpected donation (the Dutch lottery), good use of public relations opportunities (the 20th anniversary) or the efforts of committed individuals, among others. Developing a viable exit strategy under the circumstances was hardly possible.

Recommendation 8

R8.1 To allow all the people involved in CHARP to release the feelings of frustration, anger and “unfinished business” left by the abrupt way CHARP ended, to move on in their Red Cross work and to be able to address new challenges, it is *extremely important to give the programme a decent closure.*

R8.2 This closure could best be done by for example organizing an informal “get-together” of all IFRC, National Societies’ and MOH staff and volunteers involved in the programme since 1990, as well as some programme beneficiaries. Ideally it could be organized in connection with the 30th anniversary of the Chernobyl tragedy in April 2016. *The meeting should be informal, centred on people sharing their personal experiences, memories and achievements from CHARP.* The meeting should in no way be combined with scientific or technical conferences, workshops or seminars organized by governments, the UN or other agencies. The proposed event in this format would be *unique* among any others planned for the 30th anniversary, and would *improve the promotion of the IFRC and National Societies’ expertise in nuclear and radiological disasters and their unique people-centred role in assisting affected populations.*

R8.3 To achieve a higher impact it is strongly recommended that a 20–30 minute “BBC-style” documentary, *based on interviews with people who were involved in the programme*, could be produced. The documentary could then be used as a “centre-piece” for the proposed meeting and the discussions.

R8.4 Should any *new programmes* aimed at assisting the populations still living in the affected areas be considered by the National Societies in Ukraine, Belarus and Russia, they *should be in line with the overall international focus on rehabilitation.* Any activities within such programmes should focus on restoring people’s normal life, rebuilding their sense of self-confidence, self-reliance and “spirit of activism”, and regaining control over their lives, *helping people live, not just survive.*



5.

Review conclusions

5.1 Relevance

127. *Programme objectives, though naturally evolving over 22 years of programme implementation, generally remained valid throughout.* The implicit objective of addressing the radiation-related fears and anxieties (1990–2000) was *highly relevant* during the first decade of CHARP implementation. The explicit objective of improving people's health by providing medical, social and psychological assistance (2001–2012), though still *relevant* during the second decade, was mostly addressing *secondary needs* (compared to the social and economic ones) due to the improved capacity of public health systems in the affected countries.

Different programme components had varying degrees of relevance at different stages.

128. *Different programme components had varying degrees of relevance at different stages.* Monitoring of radiation levels was highly relevant for addressing people's anxieties at the early stages. Thyroid gland screening was highly relevant when it was introduced, but became less so, when social and economic concerns became a major source of people's anxieties. Distribution of medicines was highly relevant when patients with thyroid gland pathologies could not be treated due to lack of medicines. Vitamin and milk distribution was relevant throughout, as a way of addressing parents' concerns about their children's health. The PSS component was relevant for enhancing Red Cross workers' knowledge and counselling skills, but less so for providing direct PSS to individuals.

5.2 Effectiveness

129. *All programme objectives, as formulated at different stages of programme implementation, were achieved.* The programme directly contributed to "alleviating anxiety about poorly understood consequences of radiation exposure" (formulated in 1990). CHARP "supported health-related recovery" and "assisted the authorities and affected populations in alleviating the medium and long-term consequences of the disaster" (1993). Thyroid gland screening and treatment of thyroid gland pathologies has largely contributed to the "improving health of the population affected by the Chernobyl nuclear disaster" (2001–2012). All CHARP activities, in one way or another, "facilitated daily life in the disaster-affected zones" (1993) and contributed to "restoring the community's capacity to recover" (1997). By supporting scientific forums, CHARP contributed to "closer cooperation between scientists and other interested parties ... within

and outside the (former) Soviet Union” (1990). The IFRC participation in UN and inter-agency bodies and coordination mechanisms on Chernobyl “facilitated exchange of experience and information ... on coping with the consequences of nuclear and other technological disasters” (1990).

130. One of the programme objectives – “strengthening the operational capacity of the three National Societies” (1993) – was achieved *partially*, mainly as improved project management and PSS skills of National Societies’ staff and visiting nurses. However, many of these retired from the National Societies after the programme ended, leaving National Societies without their personal expertise and experience.

All programme objectives, as formulated at different stages of programme implementation, were achieved. Nearly all of the programme activities planned during the CHARP life cycle were successfully implemented.

131. *Programme activities and outputs were generally consistent with the programme goal and objectives throughout the programme. Nearly all of the programme activities planned during the CHARP life cycle were successfully implemented.* Because of the novelty of the PSS concept and approach, the intended individual psychosocial counselling to the affected populations was implemented on a smaller than anticipated scale (see 3.3.4 *Limitations of PSS implementation* for details).

5.3 Impact

5.3.1 Impact on programme beneficiaries

132. *CHARP activities had a substantial impact on the health and welfare of people living in the Chernobyl-affected areas.* Hundreds of thousands of beneficiaries received accurate information of the levels of radioactive contamination and practical advice on avoiding radiation exposure and decontaminating food. *Thyroid gland screening* resulted in a high level of detection of thyroid gland pathologies leading to early treatment, thus substantially improving the patients’ survival rate and reducing mortality from thyroid gland cancer. Since the thyroid gland directly affects the functioning of most other body systems, the patients treated for thyroid gland pathologies substantially improved their overall well-being and quality of life. The Chernobyl Forum explicitly mentioned detecting and treating hundreds of cases of thyroid cancer as one of the successes of the international response to the aftermath of the Chernobyl accident.

133. *CHARP took its services to the population, providing access to sophisticated health assistance to people living in remote areas.* Health examinations and laboratory services delivered by CHARP took into consideration the *accumulated* stress added by the deteriorating socio-economic situation, and its effects on diet, health and welfare. CHARP provided *instant medical feedback and referrals*, and was available to both adults and children. The distribution of multivitamins and milk contributed to improving the health and immunity of hundreds of thousands of children, and to relieving the stress and anxiety of their parents. Thousands of people benefited from direct and indirect psychological support provided by Red Cross staff, nurses and volunteers.

“Taking into account all the constraints and limitations in the way the programme was conceived and implemented, a lot was achieved and accomplished.”

CHARP manager in the 1990s

5.3.2 Impact on public health

134. CHARP’s most important impact on the public health systems in the three affected countries was supporting them during the years following the collapse of the Soviet Union and the ensuing economic and social crises. CHARP provided much-needed medical diagnostic equipment, disposable materials and medicines. By addressing important health needs (i.e., thyroid gland screening) it filled some of the gaps left by the public health system due to lack of funds and focusing on other, more urgent health priorities.

CHARP’s most important impact on the public health systems in the three affected countries was supporting them during the years following the collapse of the Soviet Union and the ensuing economic and social crises.

135. CHARP indirectly contributed to building the capacity of the public health systems in the affected countries. Medical staff involved in CHARP accumulated substantial practical expertise in providing mobile health services in remote areas, detecting thyroid gland pathologies, using modern diagnostic equipment and screening techniques, performing fine needle biopsy in the field and providing basic psychological support to patients.

5.3.3 Impact on National Societies

136. CHARP played an important role in supporting the Red Cross societies in the three affected countries during the political and economic turmoil of the 1990s, when they lost their traditional affiliation with the state, as well as their main source of income (membership fees). CHARP funding not only gave the three National Societies an important programme to manage, it let them maintain essential structures at the headquarters level, revived some branches, supplied basic office equipment and allowed the visiting nurses programme to be preserved and later expanded.

137. Through CHARP the National Societies in the three affected countries acquired experience in managing a logistically sophisticated assistance programme, renewed and strengthened their cooperation with the ministries of health and local authorities, maintained contacts and cooperation among themselves, developed bilateral cooperation with a number of other National Societies (including the German, Danish, Irish, Finnish, Norwegian, Swiss and Japanese National Red Cross Societies). CHARP helped to build the National Societies’ experience of working with international organizations and obtaining international funds: all of them currently have programmes funded by various grants (on TB, HIV/AIDS, drug addiction, combating human trafficking), and most assist IDPs from Eastern Ukraine in cooperation with the ICRC and other agencies.

CHARP played an important role in supporting the Red Cross societies in the three affected countries during the political and economic turmoil of the 1990s, when they lost their traditional affiliation with the state, as well as their main source of income (membership fees).

138. CHARP introduced the National Societies to the concept of PSS; as one National Society leader said, “Our psychosocial support services grew out of CHARP.” CHARP also provided for increased *visibility*, a more positive *image*, greater *recognition* and extra *credibility* for the National Red Cross and Red Crescent Societies at the national and local levels. Internationally it highlighted the important role the International Red Cross and Red Crescent Movement could play in preparing for and responding to nuclear and technological disasters and mitigating their consequences.

139. *At the same time, some opportunities to build upon CHARP successes were missed.* The leading role of the IFRC in managing the programme (see 4.4 “Centralized” versus “decentralized” management) did not encourage National Societies to innovate and develop new activities. When asked about possible new Red Cross activities for the Chernobyl-affected areas, nearly all the National Society representatives insisted on simply resuming “mobile medical screening”. *Continuous IFRC funding of the programme led to excessive reliance on the International Red Cross and Red Crescent Movement for covering programme costs.* That in turn reinforced the perception of the National Societies as “providers” of international funding for public health services, thus undermining their attempts to obtain funding or financial support from their own governments (see 4.6 *Interaction with public health authorities* and 5.4 *Sustainability* for details).

5.3.4 Nuclear preparedness and response capacity

140. *CHARP experiences had a relatively limited impact on building National Societies’ nuclear preparedness and response capacity.* National Society leaders are aware of the need to have a defined role in nuclear and technological emergencies. There is an understanding that Red Cross staff and volunteers should not “get into the epicentre” and would, as they did after Chernobyl, assist the authorities in evacuation and resettlement; some leaders mentioned the need to train and equip disaster response teams for dealing with the consequences of a nuclear emergency. However, apart from being included in generic state disaster response plans, there are no arrangements with the governments of Ukraine, Belarus or Russia that define the National Societies’ role in nuclear and radiological emergencies.

CHARP experiences had a relatively limited impact on building National Societies, nuclear preparedness and response capacity.

141. At the branch level most staff interviewed were aware of the need to prepare for nuclear emergencies, but few did something about it. The branches visited had no stock of information materials, no dosimetry equipment and no people trained in using it. Apart from personal contacts between individuals, there is currently little cooperation between Red Cross branches and the radiation medicine centres. Though some branches in potentially affected areas are active in disaster preparedness, they prepare for more frequent emergencies (floods, accidents, snow-storms etc.) The nuclear response preparedness for the general public is dealt with by the Ministry of Emergencies in the affected countries, mostly through people’s workplaces, much like in the former Soviet Union.

142. Since CHARP experience has not been properly documented at any of the National Societies, all relevant knowledge and expertise resides with *individuals*. Though some still work at the Red Cross or in the health system, most have retired; there is currently no system for passing on their knowledge and expertise. As one of the former CHARP managers said, “we missed an opportunity to use CHARP funding when it was available to rejuvenate National Societies by employing young and enthusiastic programme managers”.

5.3.5 Impact on Red Cross staff and volunteers

143. A somewhat unique impact of CHARP is a strong sense of ownership and emotional attachment to it developed by most National Societies' and IFRC staff and volunteers involved in the programme. Nearly all those interviewed referred to the programme as something "special", a moment of "creativity, initiative and freedom". Many recalled a sense of clarity, leadership and vision, a "spirit of working together for a common purpose" and "being the best", responding to needs and delivering results. Many affirmed that "the operation made a lot of sense", "the approach was right", "it was good all the way through" and "we were very proud of what we did", and claimed they "missed" CHARP or were "nostalgic" about it.

"CHARP was one of many assistance programmes I participated in, and they were all special, but I keep thinking about CHARP as a very special one!"

IFRC Secretariat staff in the 1990s

144. One of the possible explanations of this phenomenon could be related to external factors. The early 1990s was an emotionally charged period in Europe. With drastic political changes in Eastern Europe and the former Soviet Union, the world as people knew it was rapidly transforming. There was a general sense of hope and excitement. Many in Western Europe wanted to express solidarity with the countries of the former Soviet Union; in doing so, individuals and organizations experienced the sense of doing something important, contributing to changing history. It is not surprising therefore that CHARP for most involved was more than "just another" emergency response programme.

5.4 Sustainability

145. Though CHARP was effectively "sustained" for 22 years by external funding, it can hardly be termed a financially "sustainable" programme. The IFRC and donor National Societies covered the bulk of programme costs throughout the programme implementation. While the governments and National Red Cross Societies in the three affected countries participated in covering programme costs, their share was never significant: in 2003 together they contributed around 60,000 Swiss francs: 7 per cent of the total CHARP funding or 20 per cent of the core activities. As soon as donor funding was withdrawn in 2012, nearly all programme activities and their benefits stopped.

Though CHARP was effectively "sustained" for 22 years by external funding, it can hardly be termed a financially "sustainable" programme.

146. The need to ensure CHARP sustainability was repeatedly raised at various levels. It had been mentioned in all programme evaluations since 1993. Ensuring financial sustainability was the focus of the 2003 CHARP strategy, which emphasized the need to shift the main programme responsibilities, including its funding, to the National Societies and ministries of health. Sustainability and programme funding were regularly discussed at ICCRC meetings. The ICCRC would generally call for the IFRC and donor National Societies to "intensify their efforts" in raising funds internationally, but would rarely suggest ways to increase local input: on two occasions (2008, 2010) it explicitly stated that the "National Societies could not risk handing over the programme to local governments yet".

147. It appears that one of the main reasons for failing to sustain CHARP financially was a certain lack of interest and commitment of the parties involved. Though in 2006–2007 the public health authorities had sufficient capacity to take over – in 2007 alone the Ukrainian MOH operated 3,114 mobile emergency teams and over 1,000 vehicles – the MOH showed little interest in developing mobile health services in rural areas (see 4.3 CHARP “delivery” strategy for details). Thyroid gland screening, though recognized as important and addressing vital needs, was no longer one of the public health priorities after 2006 (see also 2.5 The situation in 2015).

One of the main reasons for failing to sustain CHARP financially was a certain lack of interest and commitment of the parties involved.

148. While the National Societies did not have an objective capacity to sustain the programme themselves, for a number of reasons they seemed to be more interested in keeping the programme within the Red Cross (see also 4.7 Exit strategy) and were reluctant to actively pursue the handover issue with the ministries of public health. Regrettably, the IFRC did not succeed in realistically assessing the situation. So while the IFRC was advocating more financial involvement of the National Societies or the ministries of health, the National Societies favoured exactly the opposite – more and longer-term funding for the programme from the donor National Societies and the IFRC. As a result, most attempts to ensure financial sustainability were limited to looking for alternative sources of funding inside the International Red Cross and Red Crescent Movement (see also 4.6 Interaction with public health authorities).

5.5 The two decades of CHARP

149. Overall during its life cycle CHARP clearly went through two distinct periods: the decade of “growth and development” (1990–2000) and the decade of “business as usual” (2001–2012). Though the transition between the two lasted for a few years, the difference between them in the way the programme functioned was quite spectacular (see Table 5.1 below).

Table 5.1 The two decades of CHARP

“Growth and development” 1990–2000	“Business as usual” 2001–2012
Accurate needs assessment	Overlooking changing needs and priorities
Learning by doing, exploring alternatives	Doing “what we know”, ignoring alternatives
Flexibility, adjusting plans to new needs	A certain rigidity, focusing on the known
Actively using external expertise	Underestimating external expertise
Clear initial objectives	Objectives too general
Strategy viable for emergency response	Strategy unsustainable in the long run
Responding to priority needs	Responding to secondary needs
Focusing on results and achieving objectives	Focusing on the process and activities
Rapid operational decision-making	Avoiding decision-making in the field
Being realistic about National Society capacity	Underestimating National Society “auxiliary” role
Direct operational and technical involvement of the IFRC secretariat	Insufficient technical and operational support from the IFRC secretariat

5.5.1 Growth and development, 1990–2000

150. By the time CHARP started in 1990–1991, the *Chernobyl disaster had passed an acute emergency stage and entered a recovery phase*. Since in nuclear and radiological disasters the consequences are linked with radioactive contamination and generally last longer (for up to 10–15 years) than in most “non-technological” emergencies (except long-term refugee crises), the unmet health, psychological and social needs were still numerous. But *what was required from the international community was rather the technical expertise provided by a “neutral” international body that people in the affected areas would trust more than the local authorities*.

151. However, after the dissolution of the Soviet Union in December 1991, the situation changed dramatically. When the newly independent Ukraine, Belarus and Russian Federation suddenly faced a severe political, economic and social crisis, CHARP found itself in the situation of an acute emergency: *the sudden and unexpected collapse of a public health system unable to provide even the most basic health services to the affected populations, not to mention the health consequences of the Chernobyl accident*. CHARP effectively had to step in and support the public health system in providing assistance to populations living in Chernobyl-affected areas.

152. This task indeed required an emergency response intervention and the IFRC was well positioned to provide it. As mentioned in the Review of Strategy 2010 (2009), in the early 1990s the IFRC “regarded itself mainly as a relief organization. Its Secretariat had a very prominent implementation role. Its structure, culture and systems were in line with the dominant relief-oriented way of working.” While it lacked internal technical expertise in dealing with nuclear and radiological emergencies, its knowledge and experience in managing health emergencies and emergency responses in general proved essential in dealing with the situation.

153. The period 1990–2000 was a time of challenges, intensive learning, rapid programme build-up, flexibility, and the production of creative solutions by mobilizing internal and external technical and scientific expertise. “CHARP was an improvisation. We had no idea what to do, we simply responded to the needs”; “We were ‘learning by doing’”; “CHARP was the moment of creativity for the IFRC. The Federation had the guts and courage to take it on”; “There was no specific expertise but the willingness to be realistic and committed: let’s try and do something feasible that can be funded! And this was done!!” This is how CHARP managers described their experiences in dealing with a new kind of emergency.

“There was no specific expertise but the willingness to be realistic and committed: let’s try and do something feasible that can be funded! And this was done!!”

IFRC CHARP manager in the 1990s

154. Overall during the first decade of CHARP implementation the IFRC and the National Societies were successful because they were *doing the right thing at the right time*. CHARP experience during the first decade also clearly demonstrated that *a professional emergency response organization such as the IFRC can successfully integrate new skills and apply its existing knowledge and expertise in responding to any kind of emergency, no matter how new, large, unexpected or technologically sophisticated it is*.

CHARP experience clearly demonstrated that a professional emergency response organization such as the IFRC can successfully integrate new skills and apply its existing knowledge and expertise in responding to any kind of emergency, no matter how new, large, unexpected or technologically sophisticated it is.

5.5.2 “Business as usual”, 2001–2012

155. By around 2001–2002 the “emergency” CHARP was successfully responding to in 1990–2000 was effectively over. The situation in the affected areas started gradually getting back to normal. Owing to natural decay the levels of radioactivity got considerably lower, people got used to living with the consequences of low radioactive contamination, their worst expectations never manifested, pathologies initially attributed to the effects of radiation were also found in the non-contaminated zones. The state authorities generally regained control of the situation: health services and structures started functioning again.

156. The general improvement of the situation resulted in a reduced need for assistance and declining donor interest. *The funding problems experienced in 2001–2002 clearly indicated that CHARP as an emergency response programme had reached its logical conclusion: there was a real possibility of ending the programme at that point.* However, rather than critically reviewing the relevance of the ongoing activities and either stopping the programme or refocusing it on addressing new needs, CHARP continued functioning as an emergency response programme, still supporting the public health system, and gradually becoming more and more “out of sync” with the primarily social and economic development needs in the affected areas.

The funding problems experienced in 2001–2002 clearly indicated that CHARP, as an emergency response programme, had reached its logical conclusion: there was a real possibility of ending the programme at that point.

157. The issue of programme relevance could be explained by, among other things, the fact that CHARP services (e.g., thyroid gland screening) were still objectively needed and were not sufficiently covered by the public health system, in particular in remote rural areas. They continued to be welcomed and appreciated by both the population and the health authorities, and could, in principle, be continued indefinitely, provided the funding was available. Also, during the first decade of CHARP implementation the three National Societies learned how to manage a large-scale, technically sophisticated emergency response programme and were naturally keen to continue applying what they learned over the years (“emergency response”) rather than plunging into the unknown (“social and economic rehabilitation and development”). Since neither the IFRC, nor the donors questioned continuing CHARP as it was, National Societies were not encouraged to reorient, refocus or redesign the programme.

158. Overall, the second decade of CHARP implementation clearly showed that both the IFRC and the National Societies developed the expertise, knowledge and capacity to effectively respond to nuclear or radiological accidents at the emergency phase, or to the associated emergencies (e.g., the collapse of the health system in the former Soviet Union). Both, however, lacked expertise and were much less comfortable in operating during a recovery and rehabilitation phase or assisting in the social and economic development of the Chernobyl-affected areas after 2003.

Recommendation 9

R9.1 Taking into account the traditional Red Cross Red Crescent expertise and competence in providing an emergency response, *in technological and nuclear disasters the IFRC and the National Societies should focus primarily on preparing for and providing assistance at the emergency phase.*

R9.2 In the *acute phase* immediately after the disaster the IFRC can support National Societies in evacuation, resettlement and providing basic relief assistance, avoiding the exposure of their staff and volunteers to the immediate effects of radiation. At the *post-event phase*, the IFRC and National Societies should primarily aim at alleviating radiation-related fear, anxiety and stress by providing accurate and timely information on the actual levels of radioactive contamination of people, food and the environment, possible health consequences of the exposure to radiation, minimum safety measures and a safe lifestyle in the contaminated areas.

R9.3 Though the immediate health effects for the exposed professionals at the nuclear power plant will become obvious shortly after the accident, *other health effects* of radioactive contamination after nuclear and radiological disasters may take five to eight years before they appear among the affected populations, and before the direct relationship between the fallouts and the pathology is confirmed. Therefore *any assistance programmes addressing the health effects of nuclear and radiological disasters should be planned from the beginning as long-term interventions (for up to 10 to 15 years).*

R9.4 Long-term recovery and rehabilitation needs can be best addressed by traditional Red Cross community-based and social support activities (health education, assistance to the elderly etc.) adapted to address specific radiation-related concerns. They should be initiated before the end of the emergency response phase to ensure smooth transition.



6. Final remarks

159. CHARP directly helped hundreds of thousands of people to overcome fear and anxiety, to address their health problems, to live a better life in the aftermath of Chernobyl disaster. It provided much-needed information, advice and assistance. Most importantly, it showed people living in the Chernobyl-affected areas that others *cared* about their situation and their needs. This alone cannot be overestimated.

160. CHARP clearly demonstrated that commitment, intelligence, sound and timely judgement and good will would always prevail over constraints and adverse circumstances. Despite all its shortcomings, its inconsistencies, some wrong decisions, the lack of strategic planning, the management and funding problems, CHARP by far achieved its main purpose – to help hundreds of thousands of people *survive* and *live* a better life in the aftermath of the worst nuclear disaster in human history.

161. CHARP was only made possible thanks to the selfless work of hundreds of Red Cross staff and volunteers, the chairpersons and staff of Red Cross central and local committees, visiting nurses, the medical staff of MDL teams, trainers and instructors, IFRC delegates and secretariat staff, and the staff in donor National Societies who arranged for funding and supplying much-needed equipment, vehicles, vitamins and medicines. CHARP succeeded thanks to their selfless efforts, commitment and devotion. This cannot be overestimated either.

162. The best tribute to this selfless work would be using CHARP experiences documented in the present report to make better operational and programme decisions in the future. The CHARP review is not an academic document. CHARP experiences are meant to serve as guidance for programme managers who will, sooner or later, be confronted with making decisions that their predecessors were confronted with after the Chernobyl accident. The recommendations in the review are meant to help them take the best decisions possible.



Annex 1

Terms of reference

1. ToR summary

1.1 Purpose The International Federation of Red Cross and Red Crescent Societies (IFRC) is undertaking this review study to build its understanding of and capacity to best support its work towards preparedness and response to nuclear and radiological accidents, as well as other technological disasters.

1.2 Audience The audience for the review includes the National Societies, government institutions to which the National Societies are auxiliary, the IFRC secretariat, international organizations, NGOs, donors and other partner organizations, and those in the larger international community seeking to better understand and respond to nuclear and radiological accidents, as well as other technological disasters.

1.3 Commissioners This evaluation is commissioned by the IFRC Europe Zone Office, based in Budapest.

1.4 Duration of consultancy Estimated up to 40 working days.

1.5 Time frame Estimated January – 31 March 2015

1.6 Location To be determined in joint consultation with the selected evaluation team, but to be a convenient location in Europe: e.g., Geneva (Switzerland), Budapest (Hungary), Kiev (Ukraine), Minsk (Belarus), Moscow (Russia).

1.7 Application deadline 17 December 2014

2. Background to CHARP

The Chernobyl nuclear power plant, situated in the Kiev region in the north of Ukraine close to the Ukrainian-Belarusian, border started producing power in 1977. The fourth of a planned six reactor units began operation in 1983. On 26 April 1986, the explosion of the fourth reactor of the nuclear power plant triggered the worst disaster ever of the civil nuclear industry. The accidental explosion during a safety test destroyed the core of the unit and resulted in a massive fire, which lasted for about ten days. This led to the dispersion of millions of radioactive nuclides. For more background information please refer to ample available information, including *The Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery*,¹ 2005 findings of the UN Chernobyl Forum² and other sources.³

“The Chernobyl nuclear accident of 1986 had devastating consequences for people living in the vast territories touched by radioactive fallout. Hundreds of thousands of people were evacuated, and millions of people still live in areas officially classified as ‘contaminated’” by radiation. Those who were children at the time of the accident suffer elevated rates of thyroid cancer. The three countries most affected by the accident – Belarus, the Russian Federation, and Ukraine – have spent vast sums tending to the needs of local communities. Ukraine, in addition, has assumed the burden of ensuring that the damaged reactor poses no further threat’ (*UN Action Plan on Chernobyl to 2016, Final Version approved in Vienna in November 2008, p. 1*).⁴ These activities supporting the affected populations continue today.

At the end of 1989 the Soviet Alliance of Red Cross and Red Crescent Societies formally approached the IFRC with a request for support. In January 1990 the IFRC deployed a team of international experts who, together with the Alliance, conducted a survey and came up with recommendations for an intervention.⁵ As a result, the Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP) was initiated in 1990 by the IFRC in partnership with the National Societies of Belarus, Russia and Ukraine. For a programme of such a long duration, the objectives have been both planned and emergent, including to:

1. Provide accurate information on the level of contamination and its effects on people, food-stuffs and the environment to people directly affected by the accident
2. Support health-related recovery among the affected populations, including the provision of:
 - Psychosocial counselling to the affected populations (especially in marginalized areas)
 - Health education to the affected populations (especially in marginalized areas)
 - Thyroid gland monitoring and testing to the affected populations (especially in marginalized areas)
 - Upgraded health and social institutions directly involved in the rehabilitation and treatment of the affected populations
 - Medical supplies and equipment to support National Society recovery efforts
3. Provide to the Red Cross workers the necessary equipment to ensure daily control of contamination levels in the affected areas
4. Ensure the provision of “safe food” to schools and other children’s institutions
5. Encourage closer cooperation between scientists and other interested parties, both within and outside the Soviet Union
6. Facilitate the exchange of experience and information within the Red Cross Movement and external partners on coping with the consequences of nuclear and other technological disasters.

¹ https://www.iaea.org/sites/default/files/strategy_for_recovery.pdf

² http://chernobyl.undp.org/english/docs/pr_chernobyl_forum_050905.pdf

³ http://en.wikipedia.org/wiki/Chernobyl_disaster. This site includes a list of further reading.

⁴ <http://chernobyl.undp.org/english/index.html>

⁵ See ToR annex 1, Report of the 1990 IFRC Evaluation mission.

IFRC funding for CHARP officially stopped in 2013, but stakeholder involvement in and implementation of certain aspects of CHARP have continued. Since the very beginning of the programme in 1990, we estimate that over 25 million Swiss francs were raised by the IFRC during the 22 years of the existence of this programme.

The development and implementation of CHARP was possible due to the collaboration of a number of National Societies and the IFRC, as well as strong cooperation and support from governments and other donors. For the 22 years of its operation, CHARP evolved with regular modification to adapt to newly acquired knowledge, emerging priorities and a changing context.

Prior data collection, analysis and recommendations for CHARP that are relevant to this study include several evaluations and reviews. In 1993, 1996 and 1999,⁶ the IFRC conducted evaluations which resulted in the modification of the programme, placing greater focus on the provision of thyroid gland screening and PSS. Also in 1996, an external evaluation to assess ECHO-funded activities was conducted.⁷ In response primarily to funding concerns, in 2002 the IFRC secretariat in Geneva evaluated CHARP.⁸ In 2003 and in 2005 the Netherlands Red Cross⁹ conducted programme reviews which took account of the 2002 recommendations and findings. In 2003, with support from the IFRC, an analysis of data generated over the years was conducted and an extensive report produced, although it has never been published.¹⁰

The unique nature of CHARP, including its longevity and the number of stakeholders involved, provides a valuable opportunity for the IFRC to learn from and share with others lessons from its experience. To record and capitalize on the CHARP experience, there is a pressing need to study, analyse and document what has occurred before institutional and programmatic memory fades. For example, at the November 2011 General Assembly of the IFRC, the National Societies adopted Resolution 11/46: Preparedness to Respond to the Humanitarian Consequences of Nuclear Accidents. The objective of this resolution is to further strengthen the knowledge and competence of the IFRC and the capacity of National Societies to assist communities in preparing for, and coping with, the humanitarian consequences during and after a nuclear accident.

In sum, with continued technological developments and the involvement of many states in nuclear and radiological activities, as well as an increase in the number of technological accidents and disasters, including the 2011 nuclear disaster in Fukushima Daiichi, Japan, the IFRC and a number of National Societies aspire to review and strengthen the International Red Cross and Red Crescent Movement's preparedness to respond to nuclear and radiological accidents, as well as other technological disasters. This stated purpose and the objectives for this review study of CHARP address the needs and objectives of the IFRC by identifying, highlighting and sharing key lessons and recommended best practices to inform the planning for and implementation of future programming in the areas of practical preparedness and response to nuclear and radiological accidents, as well as other technological disasters.

⁶ Annexes 2, 3, 5, respectively.

⁷ Annex 4.

⁸ Annex 6, *Evaluation of CHARP, July 2002, including ToR for the evaluation.*

⁹ Annexes 7 and 9.

¹⁰ Annex 8, *Report on medical screening data analysis.*

3. Purpose and scope of the review study

3.1 Review purpose and audience

The IFRC is undertaking this review study to build its understanding of and capacity to best support its work towards preparedness and response to nuclear and radiological accidents, as well as other technological disasters.

The audience for the review includes the National Societies, government institutions to which the National Societies are auxiliary, the IFRC secretariat, international organizations, NGOs, donors and other partner organizations, and those in the larger international community seeking to better understand and respond to nuclear and radiological accidents, as well as other technological disasters.

3.2 Review scope

The scope of the review includes the overall time frame for which CHARP was funded by the IFRC, 1990–2013, and will concentrate on CHARP activities, results and related lessons on two levels:

1. The three target countries and respective National Societies of Belarus, Russia and Ukraine
2. The Europe Zone Office and other IFRC stakeholders supporting CHARP.

The scope of the analysis is further detailed in the stated objectives below. Data collection and analysis will include relevant secondary data sources, as well as primary data collected on the basis of a review of the secondary data – both of which are detailed in the methodology section of the ToR.

4. Objectives for the review study

Three overall objectives have been identified for this review study. Objectives will be refined in the inception report (discussed below) after the commissioned review team has had the opportunity to review the available data sources to identify (in consultation with the IFRC review management committee) more detailed and evaluable objectives. The overall objectives are to:

1. Produce a comprehensive analysis of the IFRC actions and experience with CHARP in its response to the Chernobyl nuclear accident that identifies key lessons, positive and negative, and best practices/recommendations to inform planning and future programming for preparedness and response to nuclear and radiological accidents, as well as other technological disasters.
2. Analyse the overall effectiveness and impact of CHARP at the country level:
 - a. The change to communities and members due to CHARP programming, especially with regard to health services, which were a primary focus of the programming.
 - b. The change in National Society nuclear accident management capacity as a result of capacity development initiatives from CHARP over the last 22 years.
3. Document the CHARP experience to preserve an institutional memory within the IFRC of such a significant long-term programme, including its origin and how it has adapted and evolved over time; this would contribute to objectives 1 and 2, above, and can highlight both accomplishments to celebrate and challenges to learn from.

It is acknowledged that additional, unintended objectives for the review may emerge upon data collection and analysis, regarding which the review team will consult with the IFRC review management committee as their inclusion. It may very well be important to include such emergent objectives if they contribute to the overall purpose of the review study (i.e. provide relevant lessons for the IFRC's work in preparedness and response to nuclear and radiological accidents, as well as other technological disasters).

5. Methodology for the review study

The methodology for this review study will consist of a desktop review of the relevant secondary data, complimented by primary data collection in the form of key information interviews with relevant stakeholders. The review design and methodology will stress a utilization-focused approach, for which stakeholder consultation is imperative to ensure the evaluation is aligned with IFRC needs. In this way, the evaluation will be both useful and used.

5.1 Desktop review of secondary data

Secondary data includes all background documents on CHARP: e.g., reports, documentation, agreements, evaluations, reviews, proposal documents, budgets, timelines, tools and all other relevant information that can be located. Secondary data will be obtained from key CHARP resource people in Kiev, the IFRC Europe Zone Office and international headquarters in Geneva, the National Societies of Belarus, Russia and Ukraine, and other partners and relevant stakeholders.

5.2 Key informant interviews

An outcome of the desktop review, in consultation with immediate and knowledgeable stakeholders, will be the identification of key staff and people involved in CHARP, and a list of those who are relevant and realistic to interview for the review. In relation to the emerging areas to be explored on the basis of the desktop review, a questionnaire guide should be developed to lead interviews in a consistent and reliable manner. It is acknowledged that additional interviewees and areas to probe may emerge during the key informant interviews themselves. Examples of key informants include: National Society staff and volunteers, IFRC, PNSs, representatives of governments and external organizations, including those listed in the UN Action Plan for Chernobyl, as well as members of the Inter-Agency Task Force on Chernobyl chaired by the UNDP.

5.3 Field visits

Field visits will provide the opportunity for in-person key informant interviews, further collection of secondary data and potential site visits to served communities. Specific details for field visits will be outlined beforehand in a data-collection plan for the review, after secondary data initially available have been reviewed, making it possible to identify additional secondary data to obtain and key informants to interview.

Additional methods may be included, such as the use of a questionnaire survey; the full methodology will be articulated in the inception report (discussed below) after the commissioned review team has had the opportunity to review the available data sources and further consult with the IFRC review management committee.

6. Deliverables (outputs)

It is intended that this review study will be drawn upon to produce deliverables in a variety of formats that can be shared using different media to best achieve the stated objectives above. Specific deliverables in addition to the first three below will be identified in the inception report in consultation between the review team and the IFRC review management committee, and it is recognized that additional deliverables may be identified as appropriate for the identified objectives for the review. Deliverables identified for this review study thus far include but are not limited to:

1. Inception report An inception report will be prepared by the review team leader to demonstrate a clear understanding and realistic plan of work for the review that is in agreement with the ToR as well as the IFRC review management team. The inception report will include a description of the proposed methodologies and limitations; a data collection and analysis plan outlining key data sources (secondary and primary) and time frame; any specific technical and logistical needs with estimated costs; any potential risks to the review. The inception report will also identify, as discussed above, the specific additional deliverables in addition to the following two below.

2. Preliminary findings debrief The review team leader (possibly with other team members) will report preliminary findings, conclusions and recommendations to an audience of relevant IFRC/CHARP stakeholders. This will allow the review team to get initial reactions to its work and add further discussion and reflection to contribute to drafting the report.

3. CHARP review study report The review study report should address the stated objectives for the ToR and any additional, emergent objectives identified. The specific report content may vary, but at a minimum it should include a profile (background) of CHARP, why it is being reviewed, a description of the review methods and limitations, findings, conclusions, lessons learnt, and recommendations. An executive summary should provide a succinct and clear overview of the report, highlighting key findings, conclusions, recommendations and lessons learnt. The report should also have appropriate appendixes, including a copy of the ToR. Additional content items include:

- a. The CHARP implementation history and timeline, outlining key activities, events and stakeholder participation with dates.
- b. Future projections for the sustainability of the CHARP objectives based on key stakeholder (National Society) capacities, support/demand and other resources.
- c. Recommendations should:
 - (1) Apply to the specific National Society and the objectives of CHARP respective to their country contexts and capacities.
 - (2) Apply to the broader IFRC/global context to inform its work towards preparedness and response to nuclear and radiological emergencies, as well as other technological disasters.

4. Summary case-study fact sheet The purpose of this fact sheet would be for information sharing about CHARP and related lessons and recommendations for preparedness and response to nuclear and radiological accidents, as well as other technological disasters. Also, it would contribute to resource mobilization for the IFRC in this area. It should be developed in a suitable format for the IFRC to share internally and externally at meetings, high-level events and other relevant forums.

5. PowerPoint and slideshow presentation Like the summary case-study factsheet, the PowerPoint presentation could be used by different IFRC people to communicate in person with other stakeholders during both internal and external meetings, high-level events, and other relevant forums. The slideshow

could be a narrated recording of the PowerPoint by the review team members, to be used for asynchronous dissemination over the internet, on the IFRC learning platform, etc.

6. Video report A 5 to 20 minute (or longer) video report of the review could be prepared with appropriate visuals and narrative helping to convey the key findings, conclusions and recommendations. This could be posted on internal and external outlets for better dissemination and use of the review report.

Overall, the consultancy is planned for up to 40 days of work, with completion by 31 March 2015. The specific configuration of and **time frame** for deliverables will be agreed in joint consultation between the IFRC review management team and the review team (described below), largely on the basis of the initial data-collection plan outlined in the inception report and resultant time and resources for deliverables.

7. Review team members and qualifications

A two-member review team is proposed for this assignment, consisting of:

7.1 Team leader

Responsibilities include upholding the quality and ethical standards (below) for the review; completion of deliverables in a timely and cost-efficient manner; overall team leadership and management of the other review team member. The team leader will be the final author of the above-mentioned deliverables, with the team member supporting and recognized. Qualifications include:

- Demonstrated experience leading review/evaluation teams, analysing both qualitative and quantitative data, and preparing relevant writing samples/reports.
- Proven track record of conducting qualitative research, including the development of interview schedules and qualitative data analysis required, and in designing and enumerating survey questionnaires electronically (and in written format).
- Demonstrated experience and advanced technical knowledge of preparedness and response to nuclear and radiological accidents as well as other technological disasters.
- Demonstrated public health expertise of health issues related to preparedness and response to nuclear and radiological accidents, as well as other technological disasters.
- University degree(s) at postgraduate level in a relevant field of study; PhD preferred, MA minimum.
- Excellent communication (written, spoken and visual) for preparation of deliverables.
- Knowledge of the Russian language and sound knowledge of the IFRC preferred.

7.2 Expert – nuclear and radiological preparedness and response

Responsibilities include contributing to the data collection, analysis and preparation of the review study, with attention to preparedness and response to nuclear and radiological emergencies, as well as other technological disasters. Qualifications include:

- Demonstrated experience contributing to relevant reviews/evaluations, including competence in conducting relevant quantitative and qualitative data collection and analysis.
- Demonstrated and appropriate public health expertise with health issues related to preparedness and response to nuclear and radiological accidents, as well as other technological disasters.
- Demonstrated and appropriate disaster management experience related to preparedness and response to nuclear and radiological emergencies, as well as other technological disasters.
- University degree(s) at postgraduate level in a relevant field of study; PhD preferred, MPH minimum.
- Excellent communication (written, spoken and visual) skills.
- Knowledge of the Russian language and sound knowledge of the IFRC preferred.

8. IFRC management and support

8.1 IFRC (review) management committee

The management committee is tasked with the oversight of the review team. The review team leader will report to this committee, which will consist of the Europe Zone Office head of operations, the Europe Zone Office health and care coordinator, the IFRC senior officer for nuclear and radiological emergency preparedness based in Geneva, and the IFRC senior monitoring and evaluation officer based in Geneva. Other members may be included as determined by the committee. The committee will provide organizational and context-specific guidance to the review team to help achieve the stated objectives. It will also guide the review/revision of deliverables to best ensure stakeholder involvement for ownership and use of the deliverables.

8.2 Logistical and administrative support

Specific logistical and administrative arrangements will be identified by a review management committee in collaboration with the reviewer(s) once they have been contracted and a detailed data collection plan has been prepared. However, it is expected that the majority of logistical and administrative support for the reviewers will be provided through IFRC regional and country representations and offices in Moscow, Kiev and Minsk and through the Europe Zone Office.

9. Review quality and ethical standards

The review team members should take all reasonable steps to ensure that the review study is designed and conducted to respect and protect the rights and welfare of the people involved, and to ensure that the review is technically accurate, reliable and legitimate, conducted in a transparent and impartial manner, and contributes to organizational learning and accountability. Therefore, the review team should adhere to the applicable principles and standards outlined in the IFRC framework for evaluation, which apply as much to reviews as to evaluations.

It is also expected that the evaluation will uphold the Fundamental Principles of the International Red Cross and Red Crescent Movement: (1) Humanity, (2) Impartiality, (3) Neutrality, (4) Independence, (5) Voluntary service, (6) Unity, and (7) Universality. Further information can be obtained about these principles at: www.ifrc.org/what/values/principles/index.asp.

10. Application procedures

Applicants may apply as a team or individually to be considered for the review team. Interested candidates should submit their application material by 17 December 2014 using the IFRC's website (<http://www.ifrc.org/en/who-we-are/working-with-us/current-vacancies/>).

1. **Curricula Vitae** (or resume)
2. **Covering letter** clearly summarizing your experience as it pertains to this assignment, **your daily rate**, and **three professional references**.
3. At least one example of a written report most similar to the purpose and scope of that described in the ToR.

Application materials are non-returnable, and we thank you in advance for understanding that only shortlisted candidates will be contacted for the next step in the application process.

11. Annex – suggested background materials

The following list is illustrative (but not exhaustive) of key documents to be used in the review study.

11.1 Movement-wide documents

- Radiation Risk Reduction: Observations: Contribution to a Background Document for the Secretary General Visit to Japan, March 2011
- Resolution 21: Disaster Relief in Case of Technical and Other Disasters, XXVI International Conference of Red Cross and Red Crescent Societies, Geneva 1986, and Annex I on the role of the International Red Cross and Red Crescent Movement in response to technological disasters.

- IFRC Report on nuclear preparedness, June 2012, report on National Society consultation meeting on nuclear disaster preparedness
- IFRC General Assembly (Geneva, November 2011), Background to draft decision on preparedness to respond to the humanitarian consequences of nuclear accidents
- IFRC Strategic Action Plan on Nuclear and Radiological Emergency Preparedness, October 2013
- IFRC Nuclear and Radiological Emergency Preparedness and Response Guidelines, draft version, December 2014
- Communication pack on Fukushima nuclear disaster, including: a six minute mini-documentary, *Fukushima Summer*: <http://www.youtube.com/watch?v=dfYQfWFFKTU>. Facts and Figures, stories and other communication materials with the ToR.

11.2 CHARP-related documents

- Annex 1, 1990 Survey
- Annex 2, 1993 CHARP Evaluation Report
- Annex 3, 1996 CHARP Mission Report
- Annex 4, 1996 CHARP Evaluation ECHO
- Annex 5, 1999 CHARP 3rd Evaluation Mission Report
- Annex 6, 2002 CHARP Evaluation
- Annex 7, 2003 CHARP Review, The Netherlands Red Cross
- Annex 8, 2003 CHARP Data Analysis, Medical screening
- Annex 9, 2005 CHARP Mid-term evaluation, The Netherlands Red Cross
- Annex 10, CHARP 2016 Strategy
- Annex 11, CHARP Leaflet, March 2012

11.3 External documents

- “The Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery”, UNDP, <http://www.un.org/ha/chernobyl/docs/report.pdf>
- http://chernobyl.undp.org/english/nat_rep.shtml
- http://en.wikipedia.org/wiki/Chernobyl_disaster
- UN Action Plan on Chernobyl, which includes IFRC activities and shows the stakeholders of CHARP
- Chernobyl Forum report
- Optimizing the International Effort to Study, Mitigate and Minimize the Consequences of the Chernobyl Disaster; Report of the UN Secretary-General; October 2013
- UNSCEAR reports on Chernobyl

Annex 2

List of people interviewed

IFRC Geneva

- Mr Zlatko Kovac, Programme Coordinator, Rights of Migrants in Action, Head of IFRC Delegation in Kiev, 2011–2013
- Mr Gabriel Pictet, Unit Manager, Community Health and Innovation, Health Department
- Ms Sylvie Chevalley, Senior Officer, Strategic Partnerships and International Relations Department; Administrative Assistant, CHARP, 1990–1993
- Mr Mostafa Mohaghegh, Manager, Partnership Urban DRR, Community Preparedness and Risk Reduction
- Mr Choe Chang Hun, Senior Officer, DRR, Community Preparedness and Risk Reduction
- Ms Marjorie Soto Franco, Senior Officer, Community Preparedness and Risk Reduction
- Mr Pierre de Rochefort, Senior Officer, Training and Information Management, Disaster and Crisis Management Department; Officer, CHARP Appeals and Reports, 1999–2000
- Mr Panu Saaristo, Emergency Health Coordinator, Health Department

WHO Geneva

- Dr Oleg Chestnov, Assistant Director General, Noncommunicable Diseases and Mental Health, Programme Coordinator, CHARP, 1991–1993
- Dr Zhanat Carr, Radiation Programme, Department of Public Health, Environmental and Social Determinants of Health

UNISDR Geneva

- Ms Margareta Walström, Special Representative of the Secretary General for Disaster Risk Reduction; Under-Secretary General, Operations, IFRC, 1990–2000
- Mr Denis McClean, Chief, Communications and Outreach, UNISDR

IFRC Budapest

- Mr Evgeni Parfenov, Head of Operations, IFRC Europe Zone Office; Desk Officer for CHARP, 1990–1993
- Mr Alberto Monguzzi, Disaster Management Coordinator
- Mr Elkhana Rakhimov, Head of Country Cluster, Central Asia, Belarus, Moldova and Ukraine

Ukraine

- Mr V. Sokolenko, Chairman, Rovno Region Committee, Ukrainian Red Cross, Rovno
- Mr B. Maksutinski, Head, MDL, CHARP, Rovno
- Dr Alexander Komov, Head of MDL Team, 1991–1993; Health Coordinator, CHARP, 1993–2001
- Mr Serguei Shevchuk, Chief Physician, District Radiation Protection Clinic, Rovno
- Mr Victor Olkhovik, Chairman, Chernobyl Commission, Rovno District Rada (Parliament)
- Mr Alexander Savchuk, Deputy Governor, Rovno Region
- Mr Igor Dobrovolski, Deputy Head, Health Department, Rovno Region Administration
- Ms Olga Yutivets, Deputy Director, International Department, Rovno Region Administration
- Mr Serguey Kudryavtsev, First Deputy, Head of Volyn' Regional State Administration, Lutsk
- Ms Valentina Pryshko, Chairman (since 1995), Volyn' Region Committee, Ukrainian Red Cross, Lutsk
- Mr Igor Vascheniuk, Director, Health Department, Volyn' Regional Administration
- Ms Vera Marchuk, Director, Regional Radiation Protection Medical Centre, Lutsk
- Ms Alla Korzhik, Team Leader, MDL, CHARP, Lutsk
- Mr Ivan Sidor, Chief Physician, Volyn' District Hospital, Lutsk
- Mr Alexander Bogdan, Chairman, Zhitomir Region Committee, Ukrainian Red Cross, Zhitomir
- Mr Serguei Laguta, Deputy Head, Regional Administration, Zhitomir
- Mr Alexander Shatilo, Head, Health Department, Regional Administration, Zhitomir
- Ms Svetlana Dan'ko, Deputy Director, Regional Diagnostic Centre, Zhitomir
- Mr Serguei Godovanny, Deputy Chairman, Regional Rada (Parliament), Zhitomir
- Mr Yuri Lavrenchuk, Laboratory Assistant, MDL, CHARP, 1991–2005
- Mr Ivan Ussichenko, President, Ukrainian Red Cross, 1986 to present
- Ms Alla Khabarova, Secretary General, Ukrainian Red Cross
- Mr Valeri Sergovski, Under-Secretary General, International Cooperation, Ukrainian Red Cross Society; National Programme Coordinator, CHARP, 2001–2012
- Prof. Vladimir Bebesko, Director, National Centre for Radiation Medicine, Kiev, 1994–2011
- Ms Taisiya Postovoitenko, Finance Manager, IFRC Kiev, 1995–2013
- Mr Nikolay Nagorny, Administrator, CHARP, 1990–1996; Programme Coordinator, CHARP, 1997–2012

Russian Federation

- Mr Alexander Selenok, Director, Bryansk Diagnostics Centre, Bryansk, involved in CHARP in 2007–2012
- Mr Vladimir Doroschenko, Deputy Director, Bryansk Diagnostics Centre; Team Leader, CHARP MDL Team, 1994–2007
- Ms Galina Romanova, Expert, Radiological Medicine, Bryansk Diagnostics Centre; CHARP MDL member, 1994–2000

- Mr Vyacheslav Kobets, Chairman, Bryansk Region Red Cross, 2008 to present; Director, Chernobyl Assistance Department, Regional Administration, 2003–2007
- Ms Raisa Lukutsova, Chairman, Russian Red Cross Society; former Chairman, Russian Red Cross, Bryansk Chapter
- Mr Sergei Kobets, Director, International Department, Russian Red Cross

Belarus

- Mr Alexander Rozhko, Director, Republican Research Centre for Radiation Medicine and Human Ecology, Gomel
- Mr V. Vorobei, former Director, Republican Research Centre for Radiation Medicine and Human Ecology, Gomel
- Ms Natalia Vlassova, Chief, Radiation Protection Laboratory, Republican Research Centre for Radiation Medicine and Human Ecology, Gomel
- Ms A. V. Smolyak, Chairman, Belarus Red Cross, Gomel Region
- Dr Tadeusch Krupnik, Director, Regional Diagnostic Centre, Mogilev
- Dr Vladimir Golovach, Head, Chernobyl Victims Registry, Mogilev
- Mr Alexander Nikitin, Chairman, Belarus Red Cross, Mogilev Region
- Dr Vladimir Vodichev, Endocrinologist, Mobile Diagnostic Team, Bobruisk
- Ms Tatyana Tarashevich, Chairman, Belarus Red Cross, Bobruisk District
- Ms Tatyana Streltsova, Volunteer, Belarus Red Cross, Bobruisk District
- Ms Liudmila Labitskaya, Volunteer, Belarus Red Cross, Bobruisk District
- Mr Victor Kolbanov, Secretary General, Belarus Red Cross, Minsk
- Mr Nikolay Krysenko, Chairman, Railroad Division, Belarus Red Cross
- Prof. Yuri Dimitchik, Director, Republican Centre for Thyroid Gland Cancer, Minsk
- Prof. Alexei Okeanov, Principal Researcher, Cancer Control Department, National Cancer Center, Minsk
- Mr Ivan Kenik, Chairman, Chernobyl Department, former Minister of Emergencies, Belarus, Minsk
- Mr Vyacheslav Otchik, Psychosocial Support Manager, CHARP, 1998–2001

Others

- Mr Steve Davey, Under-Secretary General, Operations, IFRC, 1989–1995
- Mr Malcolm Krick, UNSCEAR; former Head, IAEA Incident and Emergency Centre
- Ms Violeta Lombarts, Head of Office, Management Emergency Programmes, People in Need, Ukraine, Donetsk; Desk Officer, Netherlands Red Cross, 1995–2004
- Mr Joe Lowry, Head of IFRC Delegation, Kiev/Minsk, 2008–2011
- Mr Renny Nancholas, Head, Europe Department, IFRC, 1996–1999; Head, International Department, British Red Cross, 1990; member of 1990 CHARP Assessment Mission
- Mr Gerhard Proehl, Unit Head, Assessment and Management of Environmental Releases Unit, Waste and Environmental Safety Section, Division of Radiation, Transport and Waste Safety, Department of Nuclear Safety and Security, IAEA, Vienna, Austria
- Dr Johannes Richert, Director International Cooperation/National Emergency Services, German Red Cross
- Dr Stefan Seebacher, Head, IFRC Delegation in Minsk/Kiev, 2002–2003; Head, Health Department, IFRC, 2010–2014

Annex 3

List of documents reviewed

CHARP documents

- League and IFRC CHARP appeals, situation reports, mid-term reports and updates, 1990–2013
- *Final Narrative Report*, CHARP, ECHO contract ECHO/TPS1B7-215/97/0302, May 1998
- *Draft Plan of Action, Psychosocial Service, Chernobyl Humanitarian Assistance and Rehabilitation Programme*, 1999
- Minutes, CHARP Working Group, October–December 1999
- Minutes, ICCC, 2000, 2003, 2006, 2009, 2010
- Strategy of Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP), 2003–2005 and until 2008, IFRC, 2003
- *CHARP Focus: 15 years of CHARP, 20 years after the Chernobyl Disaster*. IFRC, 2005
- CHARP pledge-based report to the Netherlands Red Cross, May 2006
- *Annual Report, Chernobyl Humanitarian Assistance and Rehabilitation Programme, Belarus, Ukraine, Russia*. IFRC, 2011
- CHARP project proposal and logframe, January 2012
- CHARP pledge-based report to the Icelandic Red Cross, July–December 2012
- CHARP pledge-based report to the Japanese Red Cross, April 2011 – December 2012
- *Long-Term Planning Framework, Ukraine, 2012–2013*. IFRC, 2013

CHARP assessments and evaluations

- Nancholas, R. et al., *Report on Assessment Mission to the Areas Affected by the Chernobyl Disaster, USSR*. LRCS, February 1990
- Dige-Petersen, H. et al., *CHARP Evaluation Report*, October 1993
- Behr, M. and Scorer, T., *The Red Cross Chernobyl Assistance and Rehabilitation Programme*. LRCS, March 1994
- Pellerin, P. and Revel, J.-P., *Chernobyl Assistance and Rehabilitation Programme: Evaluation*. IFRC, 1996
- Revel, J.-P., *Chernobyl Evaluation and Plan of Action*. IFRC, 1996
- Lambert, P.-Y. and Pont, M., *Ukraine, Belarus and Russia Chernobyl Humanitarian Assistance and Rehabilitation Programme Evaluation*. IFRC, 1996
- Neuilly, M.-T., *CHARP Pilot Programme for Psycho-Social Support: Assessment Report*, June 1998
- Revel, J.-P. et al., *Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP): Third Evaluation Mission*. IFRC, 1999
- *Medical Assistance to Populations Living in the Areas Most Affected by the Chernobyl Accident in Belarus, Ukraine and Russian Federation*. Final Narrative Report for ECHO ITPS121S/1998/02002, March 1999

- Corcoran, B. et al., *Evaluation of Support by the International Red Cross and Red Crescent Movement to the Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP)*. IFRC, 2002
- Wissink, H., *Chernobyl Humanitarian Assistance and Rehabilitation Programme: Evaluation*. The Netherlands Red Cross, 2003
- Komov, A., *Data Analysis on On-going Screening of Population Having Undergone Radioactive Irradiation due to Chernobyl Power Station Accident in Belarus, Russia and Ukraine*. IFRC, 2003
- Tereschenko, V. and Wissink, H., *Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP): Mid-Term Evaluation*. The Netherlands Red Cross, 2005

CHARP-related documents

- *Urgent Report on the Explosion at the Chernobyl Nuclear Power Plant*. Deputy Minister of Energy of the USSR, 26 April 1986
- Research Centre for Radiation Medicine, National Academy of Medical Science of Ukraine, 1986–2011
- 'Chernobyl, ten years after: Is there a future for those affected?', in *Coping with Crisis*, no. 1, 1996
- The Netherlands Red Cross CHARP documents, 1998–2006
- Revel, J.-P., Pellerin, P., Komov, A. and Nagorny, N., *CHARP: Ten Years of Red Cross Experience in Humanitarian Response to Chernobyl Disaster*, April 2000
- 'Declining donor support may jeopardize Red Cross Red Crescent Chernobyl thyroid cancer detection programme'. News release, IFRC, April 2005
- *CHARP Focus: 15 Years of the Chernobyl Humanitarian Assistance and Rehabilitation Programme, 20 Years after the Chernobyl Disaster*. IFRC, 2006
- *Bryansk Clinical and Diagnostic Centre: 20 Years in Operation*. Bryansk, 2006
- Lekhan, V., Rudyi, V. and Richardson, E., *Ukraine: Health System Review 2010*. European Observatory on Health Systems and Policies, WHO, 2010
- Bogdan, A., *Technology of Health Monitoring and Prevention for the Populations Affected by the Accident at Chernobyl Nuclear Power Plant*. Kiev, 2012
- *Belarus Public Expenditure Review: Enhancing Public Services in Times of Austerity*. World Bank, 2013

IFRC/ICRC documents

- *Disaster Relief in Case of Technical and Other Disasters*. Resolution 21, XXVI International Conference of Red Cross and Red Crescent Societies, Geneva, 1986
- *The Role of the Red Cross and Red Crescent Societies in Response to Technological Disasters*. Annex I to Resolution 21, XXVI International Conference of Red Cross and Red Crescent Societies, Geneva, 1986
- *Post-Emergency Rehabilitation Policy*. IFRC, 1999
- *Psychological Support Policy*. IFRC, 2003
- *Mid-Term Review, Strategy 2010*. IFRC, 2005
- *Unités Mobiles de Santé: Approche Méthodologique*. CICR, 2006
- *Review of Strategy 2010*. IFRC, April 2009
- *Saving Lives, Changing Minds, Strategy 2020*. IFRC, 2010
- *IFRC Guidelines for Donation of Infant Formula and Other Milk Products in Emergencies*. IFRC
- *Preparedness to Respond to the Humanitarian Consequences of Nuclear Accidents*. Decision 11/46, IFRC General Assembly, 18th Session, 2011
- *Beneficiary Communication and Accountability: A Responsibility, Not a Choice. Lessons Learned and Recommendations, Indonesia, Haiti, Pakistan*. IFRC 2011

- *Radiation Risk Reduction: Observations. Contribution to a Background Document for the Secretary General Visit to Japan.* IFRC, March 2011
- *Draft Decision on Preparedness to Respond to the Humanitarian Consequences of Nuclear Accidents.* Background document. IFRC General Assembly, Geneva, November 2011
- *Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP).* Information leaflet, March 2012
- *The Right to be Heard, The Responsibility to Listen: Mainstreaming Beneficiary Communication.* IFRC, July 2012
- Seebacher, S., *IFRC Concept for Nuclear Crises Response: A Basis for Discussion.* Working Group Meeting on Nuclear Preparedness, Tokyo, 30–31 January 2012
- *IFRC Report on Nuclear Preparedness.* National Societies' consultation meeting on nuclear disaster preparedness, June 2012
- *Fukushima Nuclear Disaster.* Communication pack. IFRC, 2012
- *Strategic Action Plan on Nuclear and Radiological Emergency Preparedness.* IFRC, October 2013
- *Nuclear and Radiological Emergency Preparedness and Response Guidelines.* Revised Working Draft 2. IFRC, February 2015

UN documents

- *The International Chernobyl Project: An Overview. Assessment of Radiological Consequences and Evaluation of Protective Measures.* Report by an International Advisory Committee. IAEA, 1991
- *The Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery.* UNDP and UNICEF, 2002
- *Chernobyl's Legacy: Health, Environmental and Socio-economic Impacts and Recommendations to the Governments of Belarus, the Russian Federation and Ukraine.* Chernobyl Forum: 2003–2005, 2nd rev. version. IAEA, 2005
- *Generic Procedures for Medical Response during a Nuclear or Radiological Emergency.* IAEA, WHO, April 2005
- *Health Effects of the Chernobyl Accident and Special Health Care Programmes.* Report of the United Nations Chernobyl Forum Expert Group 'Health'. WHO, 2006
- *Environmental Consequences of the Chernobyl Accident and Their Remediation: Twenty Years of Experience.* Report of the Chernobyl Forum Expert Group 'Environment'. IAEA, 2006
- *Infant and Young Child Feeding in Emergencies: Operational Guidance for Emergency Relief Staff and Programme Managers.* IFE Core Group, 2007
- *UN Action Plan on Chernobyl to 2016.* Final version, November 2008
- Jacob, P. et al., 'Rural areas affected by the Chernobyl accident: Radiation exposure and remediation strategies', in *Science of the Total Environment*, vol. 408, pp. 14–25, 2009
- *Infant and Young Child Nutrition.* WHA63.23. Sixty-Third World Health Assembly, May 2010
- *Chernobyl at 25th Anniversary: Frequently Asked Questions.* WHO, April 2011
- *Health Effects due to Radiation from the Chernobyl Accident.* UNSCEAR, 2011
- *Recovery from Chernobyl and Other Nuclear Emergencies: Experiences and Lessons Learnt.* UNDP Regional Bureau for Europe and the CIS, April 2013
- *Optimizing the International Effort to Study, Mitigate and Minimize the Consequences of the Chernobyl Disaster.* Report of the Secretary-General A/68/498, 68th Session of the UN General Assembly, October 2013
- *Strengthening of International Cooperation and Coordination of Efforts to Study, Mitigate and Minimize the Consequences of the Chernobyl Disaster.* Resolution A/68/L.21, 68th Session of the UN General Assembly, December 2013

- ‘Twenty-ninth anniversary of the Chernobyl disaster: Unique international experience in response, recovery, development and knowledge-sharing’. Press releases, Permanent Missions of Ukraine and of the Republic of Belarus to the United Nations, April 2015
- ‘Statement attributable to the spokesman for the Secretary-General on the 29th anniversary of the Chernobyl disaster’. United Nations, New York, 26 April 2015

Review methodology

- *Methods and Procedures in Aid Evaluation*, OECD, 1986
- *DAC Principles for the Evaluation of Development Assistance*, OECD, 1991
- *Glossary of Evaluation and Results Based Management (RBM) Terms*, OECD, 2000
- Bamberger, M., ‘Reconstructing baseline data for impact evaluation and results management’, PREM Notes, November 2010
- *IFRC Framework for Evaluations*, IFRC, 2011

Annex 4

Field visits itinerary



Monday, 6 April 2015

17:00 Arrival in Geneva (Alexei Gartinski, review team Leader)

Tuesday, 7 April 2015

10:00 Review team meeting, discussing work modalities
14:00 Interview with Zlatko Kovac, Programme Coordinator, Rights of Migrants in Action, Head of IFRC Delegation in Kiev, 2011–2013
16:00 Interview with Gabriel Pictet, Unit Manager, Community Health and Innovation, Health Department

Wednesday, 8 April 2015

10:00 Interview with Dr Oleg Chestnov, Assistant Director General, Noncommunicable Diseases and Mental Health, Programme Coordinator, CHARP, 1991–1993
12:00 Interview with Dr Zhanat Carr, Radiation Programme, Department of Public Health, Environmental and Social Determinants of Health
14:00 Interview with Ms Sylvie Chevalley, Senior Officer, Strategic Partnerships and International Relations Department; Administrative Assistant, CHARP, 1990–1993
16:00 Interview with Mr Mostafa Mohaghegh, Manager, Partnership Urban DRR, Community Preparedness and Risk Reduction; Mr Choe Chang Hun, Senior Officer, DRR, Community Preparedness and Risk Reduction; Ms Marjorie Soto Franco, Senior Officer, Community Preparedness and Risk Reduction
17:00 Interview with Mr Pierre de Rochefort, Senior Officer, Training and Information Management, Disaster and Crisis Management Department; Officer, CHARP Appeals and Reports, 1999–2000

Thursday, 9 April 2015

09:00 Interview with Mr Panu Saaristo, Emergency Health Coordinator, Health Department, IFRC
14:05 Flight to Budapest (Alexei Gartinski)
17:00 Reviewing CHARP documents

Friday, 10 April 2015

10:00 Briefing with Mr Evgeni Parfenov, Head of Operations, IFRC Europe Zone Office, Budapest; Desk Officer for CHARP, 1990–1993
14:00 Interview with Mr Alberto Monguzzi, Disaster Management Coordinator, IFRC Europe Zone Office
16:00 Interview with Mr Elkhon Rakhimov, Head of Country Cluster, Central Asia, Belarus, Moldova, Ukraine, IFRC Europe Zone Office

Sunday, 12 April 2015

12:10 Departure from Budapest to Kiev
14:50 Arrival in Kiev (Alexei Gartinski, Jean-Pierre Revel)
17:00 Review team working briefing

Monday, 13 April 2015

09:00 Reviewing CHARP documents
14:00 Transfer to Rovno from Kiev
19:00 Arrival in Rovno

Tuesday, 14 April 2015

- 09:00 Meeting at Rovno regional Red Cross committee with *Vladimir Sokolenko*, Chairman, Rovno Region Committee, Ukrainian Red Cross, Rovno, *B. Maksutinski*, Head, MDL, CHARP, Rovno
- 12:00 Visit to Rovno regional dispensary. Meeting with Mr *Serguei Shevchuk*, Chief Physician, District Radiation Protection Clinic, Rovno
- 14:00 Visit to Rovno Regional Administration. Meeting with Mr *Victor Olkhovik*, Chairman, Chernobyl Commission, Rovno District Rada (Parliament); Mr *Alexander Savchuk*, Deputy Governor, Rovno Region, Mr *Igor Dobrovolski*, Deputy Head, Health Department, Rovno Region Administration; Ms *Olga Yutivets*, Deputy Director, International Department, Rovno Region Administration
- 17:00 Interview with Dr *Alexander Komov*, Head of MDL Team, 1991–1993; Health Coordinator, CHARP, 1993–2001

Wednesday, 15 April 2015

- 08:00 Transfer to Lutsk, capital of Volyn' Oblast
- 09:00 Meeting with Ms *Valentina Pryshko*, Chairman (since 1995), Volyn' Region Committee, Ukrainian Red Cross, Lutsk
- 11:00 Visit to Volyn' Regional Administration. Meeting with Mr *Serguey Kudryavtsev*, First Deputy, Head of Volyn' Regional State Administration, Lutsk
- 12:00 Meeting with Mr *Igor Vascheniuk*, Director, Health Department, Volyn' Regional Administration; Ms *Vera Marchuk*, Director, Regional Radiation Protection Medical Centre, Lutsk; Ms *Alla Korzhik*, Team Leader, MDL, CHARP, Lutsk; Mr *Ivan Sidor*, Chief Physician, Volyn' District Hospital, Lutsk
- 14:00 Transfer to Zhitomir
- 18:00 Arrival in Zhitomir

Thursday, 16 April 2015

- 09:00 Meeting at Zhitomir regional Red Cross committee with Mr *Alexander Bogdan*, Chairman, Zhitomir Region Committee, Ukrainian Red Cross, Zhitomir
- 11:00 Visit to Zhitomir Regional Administration. Meeting with Mr *Serguei Laguta*, Deputy Head, Regional Administration; Mr *Alexander Shatilo*, Head, Health Department; Mr *Serguei Godovanny*, Deputy Chairman, Regional Rada (Parliament)
- 14:00 Visit to Zhitomir Regional Diagnostic Centre. Meeting with Ms *Svetlana Dan'ko*, Deputy Director, Regional Diagnostic Centre, Zhitomir Mr *Yuri Lavrenchuk*, Laboratory Assistant, MDL, CHARP, 1991–2005
- 16:00 Transfer to Kiev
- 18:00 Arrival in Kiev

Friday, 17 April 2015

- 09:00 Meeting with Mr *Ivan Ussichenko*, President, Ukrainian Red Cross, 1986 to present; Ms *Alla Khabarova*, Secretary General, Ukrainian Red Cross
- 11:00 Meeting with Ms *Taisiya Postovoitenko*, Finance Manager, IFRC Kiev, 1995–2013
- 13:00 Interview with Mr *Nikolay Nagorny*, Administrator, CHARP, 1990–1996; Programme Coordinator, CHARP, 1997–2012

- 15:00 Interview with Prof. *Vladimir Bebeszko*, Director, National Centre for Radiation Medicine, Kiev, 1994–2011
- 16:00 Interview with Mr *Valeri Sergovski*, Under-Secretary General, International Cooperation, Ukrainian Red Cross Society; National Programme Coordinator, CHARP, 2001–2012

Saturday, 18 April 2015

- 06:00 Transfer to Borispol airport
- 10:10 Flight to Minsk
- 11:10 Arrival in Minsk
- 13:00 Reviewing programme documents
- 17:00 Discussing review findings from Ukraine

Sunday, 19 April 2015

- 10:00 Attempted transfer to Bryansk
- 15:00 Because of changes in border-crossing procedures between Belarus and Russia for Ukrainian citizens, the review team could not cross the border and decided to move to Gomel, and then attempt to cross into Russia through a different border crossing the following day.
- 21:00 Arrival in Gomel

Monday, 20 April 2015 (public holiday in Belarus)

- 08:00 Transfer to Bryansk (*Alexei Gartinski*, *Jean-Pierre Revel*)
- 09:00 Meeting with Mr *Alexander Selenok*, Director, Bryansk Diagnostics Centre, Bryansk, involved in CHARP in 2007–2012; Mr *Vladimir Doroschenko*, Deputy Director, Bryansk Diagnostics Centre; Team Leader, CHARP MDL Team, 1994–2007; Ms *Galina Romanova*, Expert, Radiological Medicine, Bryansk Diagnostics Centre; CHARP MDL member, 1994–2000
- 12:00 Meeting with Mr *Vyacheslav Kobets*, Chairman, Bryansk Region Red Cross, 2008 to present; Director, Chernobyl Assistance Department, Regional Administration, 2003–2007
- 17:00 Return to Gomel

Tuesday, 21 April 2015 (public holiday in Belarus)

- 09:00 Reviewing CHARP documents
- 13:00 Discussing review findings from the visit to Bryansk
- 17:00 Working on the draft report
- 21:00 Mr *Martin Krottmayer* joins the review team in Gomel

Wednesday, 22 April 2015

- 10:00 Visiting Republican Research Centre for Radiation Medicine and Human Ecology. Meeting with Mr *Alexander Rozhko*, Director; Mr *V. Vorobei*, former Director; Ms *Natalia Vlassova*, Chief, Radiation Protection Laboratory
- 14:00 Visiting Gomel Oblast. Meeting with Ms *A. V. Smolyak*, Chairwoman, Belarus Red Cross, Gomel Region; *Nikolay Krysenko*, Chairman, Belarus Red Cross Railroads Committee
- 17:00 Transfer to Mogilev

Thursday, 23 April 2015

- 10:00 Dr *Tadeusch Krupnik*, Director, Regional Medical Diagnostic Centre, Mogilev; Dr *Vladimir Golovach*, Head, Chernobyl Victims Registry, Mogilev
- 12:00 Mr *Alexander Nikitin*, Chairman, Belarus Red Cross, Mogilev Region; Dr *Vladimir Vodichev*, Endocrinologist, Mobile Diagnostic Team, Bobruisk
- 14:00 Travel to Bobruisk
- 16:00 Observing Mogilev MDL performing thyroid gland screening. Meeting Ms *Tatyana Tarassevich*, Chairman, Belarus Red Cross, Bobruisk; Ms *Tatyana Streltsova*, Volunteer; Ms *Liudmila Labitskaya*, Volunteer
- 18:00 Transfer to Minsk

Friday, 24 April 2015

- 10:00 Meeting with Mr *Victor Kolbanov*, Secretary General, Belarus Red Cross; Mr *Nikolay Krysenko*, Chairman, Railroad Division, Belarus Red Cross
- 12:00 Visiting Republican Centre for Medical Rehabilitation and Balneology. Meeting with Prof. *Yuri Dimitchik*, Director, and Prof. *Alexei Okeanov*, Principal Researcher, Cancer Control Department, National Cancer Centre, Minsk; Mr *Ivan Kenik*, Chairman, Chernobyl Department, former Minister of Emergencies, Belarus, Minsk
- 17:00 Interview with Mr *Vyacheslav Otchik*, PSS Manager, CHARP, 1998–2001
- 19:00 Working on the CHARP timeline with Mr *Nikolay Nagorny*

Saturday, 25 April 2015

Working on the interview notes and draft review report

Sunday, 26 April 2015

- 07:00 Flight to Geneva (*Jean-Pierre Revel*, *Martin Krottmayer*)
- 14:20 Flight to Moscow (*Alexei Gartinski*)

Monday, 27 April 2015

- 10:00 Meeting with Mrs *Raisa Lukuttsova*, Chairman, Russian Red Cross, former Chairman, Bryansk (1986–2002), and Mr *Serguei Kobets*, Director, International Department, Russian Red Cross
- 12:00 Meeting with Mr *Davron Mukhamedieyev*, Representative, IFRC, Moscow

Tuesday, 28 April 2015 – Tuesday, 5 May 2015

Analysing filed trip notes and materials, reviewing background documents, working on the draft review report

Wednesday, 6 May 2015

- 09:00 Debriefing, IFRC secretariat (Geneva), with the review management team: *Evgeni Parfenov*, *Martin Krottmayer*, *Scott Chaplow*, *Mahesh Gunasekara*
- 13:00 Working lunch with review management team

Thursday, 7 May 2015

- 09:00 Analysing feedback from the review management committee
- 14:00 Interview with Ms *Margareta Walström*, Special Representative of the Secretary General for Disaster Risk Reduction; Under-Secretary General, Operations, IFRC, 1990–2000; and Mr *Denis McClean*, Chief, Communications and Outreach, UNISDR
- 17:00 Flight to Amman (*Alexei Gartinski*)

Annex 5

CHARP timeline,
1986–2015

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1986	26 April 1986. An explosion in reactor 4 at Chernobyl nuclear power plant results in massive radioactive contamination in the USSR and neighbouring countries, becoming the major technological catastrophe in the history of humanity			
		May 1986. Alliance of Red Cross and Red Crescent Societies of the USSR (Alliance) creates a Chernobyl Commission to coordinate involvement in the assistance to the populations in the affected areas		
		October 1986. The 25th International Conference of the Red Cross adopts Resolution XXI “ <i>Disaster Relief in Case of Technological and Other Disasters</i> ” calling on governments to cooperate in such cases and to use the capacity of National Societies		October 1986. IAEA General Conference adopts <i>Convention on Early Notification of a Nuclear Accident</i> and <i>Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency</i>

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1986–1990	1986–1990. Soviet government manages rescue and relief operation, evacuation from affected areas and later resettlement programme	1986–1990. Alliance assists Soviet authorities in evacuation and resettlement; basic relief assistance (funds, clean food) is supplied to the affected areas		
1987				1987. WHO sets up REMPAN
1988	7 December 1988. Armenian earthquake in Spitak. Soviet authorities accept international humanitarian assistance for first time since 1921	December 1988. League launches one of its biggest relief and reconstruction programmes in Armenia, the first of its kind in the USSR		
1989				June 1989. WHO sends a team of experts to the USSR to assess the situation in Chernobyl-affected areas
		October 1989. 7th General Assembly of the League adopts <i>Strategic Work Plan for the Nineties</i>		October 1989. USSR requests IAEA to organize international assessment of the consequences of the Chernobyl accident and the protective measures taken
		December 1989. Alliance calls for a League initial-needs assessment mission in the most affected areas in Ukraine, Belarus and Russia		
1990		January 1990. League assessment mission visits the affected areas in the three countries		
1990				February 1990. International Chernobyl Project (CEC, FAO, ILO, UNSCEAR, WHO, WMO) formally established to assess the quality of the response so far

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
		March 1990. League assessment mission report suggests focusing on providing accurate information to affected people, counselling to help alleviate psychological problems, providing radiation monitoring equipment, encouraging cooperation between scientists, supplying medical equipment		
		April 1990. Alliance decides to appeal to the League “for help in mobilizing the international assistance to supplement the Alliance’s efforts”		April 1990. IAC agrees on the its work plan for 1990–1991
			June 1990. League launches its first <i>Appeal</i> on CHARP for 4,900,000 Swiss francs. The appeal’s 2-year plan of action includes providing accurate information on the effects of radioactive contamination on health; strengthening the health education programme for the population in contaminated areas; exchanging of experience and information on coping with the consequences of nuclear and other technological disasters; upgrading health and social institutions involved in treating and rehabilitating the affected population.	

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1990		August 1990. Alliance Special Coordination Board for Chernobyl is established	August 1990. League delegation opens in Kiev	August 1990. Sasakawa Health Co-operation Foundation (Japan) sets up a 33 million US dollar programme providing medical assistance in the affected areas (medical equipment, medicines, reagents for tests, vehicles with diagnostic and radiometric devices, expertise of Japanese physicians, training of medical staff in Japan)
			October 1990. 350 ALNOR dosimeters received and distributed among Red Cross staff and trained volunteers	
			November 1990. League <i>review</i> of the technical, scientific, medical and organizational issues results in producing a detailed CHARP implementation plan. First workshop for Red Cross staff and volunteers on using dosimeters held in Kiev	
			December 1990. Monitoring of radiation levels in the environment using the received dosimeters starts. Radiation monitoring points managed by local Red Cross staff and volunteers are created in large settlements	
1991				March 1991. IAC Report confirms generally low levels of environmental contamination, stating that no health disorders could at that stage be attributed directly to radiation; confirms high level of anxiety- and stress-related disorders; evokes a <i>possibility of increased thyroid gland pathologies in the future</i>

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1991			April 1991. Alliance and the League secretariat sign an agreement on cooperation for the CHARP	April 1991. Chernobyl Centre for International Research focusing on epidemiological surveillance and biological dosimetry opens following an agreement between the USSR and IAEA
			June-July 1991. IFRC Technical League delegate arrives in Kiev. 30 LB200 Becquerel food monitors (from Germany) are received and distributed to the Ukrainian, Belarus and Russian Red Cross societies. Food monitoring starts	
		October 1991. League changes its name to <i>International Federation of Red Cross and Red Crescent Societies</i>		
	December 1991. Gorbachev resigns as President of the Soviet Union. Following the collapse of the Soviet Union the CIS is founded		December 1991. MDL teams (24 people) formed and trained by the German Red Cross in Hamburg, Germany. 6 MDL vehicles (Mercedes 410), equipped with whole body gamma-ray monitors, blood and urine analysers, desktop and laptop computers, and printers, are received and deployed in Briansk and Kursk (Russia), Gomel and Mogilev (Belarus), Rovno and Zhitomir (Ukraine)	
1992				January 1992. International Programme on the Health Effects of the Chernobyl Accident is launched by WHO: pilot projects on thyroid gland, haematology, brain damage in utero, oral health and epidemiological registry
	March 1992. Economic crisis and severe disorganization of health services in Ukraine, Belarus and Russian Federation		March 1992. MDLs start screening and health check-ups in 6 affected oblasts	

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1992		May 1992. Alliance of Red Cross and Red Crescent Societies of the USSR is dissolved	May 1992. Inter-Republican Coordination Committee (later ICCC) of Russian, Ukrainian and Belarus Red Cross Societies takes up the coordinating role for CHARP. The three National Societies agree to continue CHARP as a “single entity”	
			July–December 1992. Refresher technical training for MDL teams in using the medical equipment	
			August 1992. IFRC delegation formally opens in Kiev	
			October 1992. IFRC launches its second appeal for CHARP for 880,000 Swiss francs	
				November 1992. Governments of Belarus, Russian Federation and Ukraine sign an agreement with the UN on coordination of Chernobyl health-related programmes, identifying priorities until 2000
				December 1992. The first cases of radiation-induced thyroid gland cancers among young children are reported in Belarus
1993			April 1993. ICCC is created to coordinate CHARP strategy and activities. It includes chairpersons of the Russian, Ukrainian and Belarus Red Cross societies and the head of the IFRC delegation	
			August 1993. One MDL is sent to Chelyabinsk region to assist in radiological monitoring of areas contaminated as a result of an accident at the Mayak plant (Techa River). After one month's work no major anomalies are detected; MDL is redeployed for CHARP	

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1993			September 1993. MDLs are equipped with ALOKA 250 ultrasound scanners (from Japan), which allow diagnosis of thyroid gland pathologies at the early stages	
			October 1993. <i>First CHARP Evaluation</i> analyses the status and results of the programme in preparation for 1st International Red Cross and Red Crescent Symposium on CHARP in Kiev. Evaluation points out a number of technical and organizational difficulties in programme implementation and recommends handing over the programme to National Societies within the next two years	
			November 1993. <i>1st International Red Cross and Red Crescent Symposium</i> on CHARP in Kiev recommends starting a PSP. First presentations of the work carried out by the MDL teams. Monitoring of radiation levels in the environment is stopped; ALNOR dosimeters are returned and stored at each National Society HQ. Full body scans and food monitoring continues	November 1993. Sasakawa Foundation continues conducting environmental monitoring, but with reduced number of MDLs
1994			March 1994. First comprehensive report on CHARP, documenting CHARP experience 1990–1994, is produced, based on the outcomes of the first CHARP Symposium	March 1994. WHO Regional Office for Europe initiates an international project on <i>thyroid gland pathologies</i> (continued until September 2000)

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1995			May 1995. First cases of thyroid gland cancer detected by CHARP MDLs.	
		December 1995. 26th International Conference of the Red Cross adopts Resolution 4 “ <i>Principles and action in international humanitarian assistance and protection</i> ” calling upon states to take note of the guidelines on National Society involvement in technological disasters and encouraging National Societies to intensify their activities in favour of the victims		
1996			February 1996. <i>Second evaluation of CHARP</i> concludes that monitoring shows no significant increase in radioactivity levels. It suggests <i>focusing on detection of thyroid gland cancer in children</i> , introducing lighter MDL vehicles, pursuing monitoring of radioactivity, distribution of milk powder, vitamins and micronutrients, <i>developing a PSP</i> , advocating for long-term sustainability and greater involvement of the National Societies in the programme	
			February–April 1996. ECHO Evaluation of CHARP suggests <i>focusing on screening for thyroid gland cancer</i> , redefining the target population and increasing the number of MDLs	

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1996			April 1996. Second International CHARP Symposium (Gomel, Belarus) recommends stopping dosimetry due to generally low levels of radiation, <i>introducing lighter MDLs</i> , focusing on screening and detection of thyroid gland cancer among children, <i>introducing PSS as a pilot project</i> , continuing distribution of multivitamins and milk powder. One MDL is transferred from Russia (Kursk) to Belarus (Brest)	April 1996. Sasakawa Foundation stops its activities in Chernobyl-affected areas. CHARP remains the only programme continuing to medically screen local population in remote areas
			November 1996. IFRC completes needs assessment for the psychosocial component of CHARP. Psychosocial training delegate assigned to the Minsk Federation Delegation to train the local coordinator, organize the first training seminar and make recommendations on the PSS pilot programme	
1997		January 1997. <i>Sphere Project</i> is initiated by a group of NGOs and the International Red Cross and Red Crescent Movement		
			May 1997. PSS pilot project starts in Belarus. First PSP ToT workshop for 16 trainers is organized in Gomel (Belarus)	May 1997. UN Evaluation Mission for the Chernobyl disaster's 10th anniversary visits Gomel and observes a CHARP MDL in operation
			June 1997. 6 new (lighter) VW MDLs are received in Brest, Mogilev and Gomel (Belarus), Zhitomir and Rovno (Ukraine) and Bryansk (Russia). MDL teams are trained in using new equipment for thyroid gland screening	

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
1998			April 1998. Second workshop for all MDL teams focuses on exchange of experience and scientific updates	
			June 1998. <i>PSS assessment mission</i> in Belarus recommends formalizing the project, clarifying psychological needs, focusing training on more practical skills, reinforcing training methodology and contents, working more in schools and communities, cooperating with other organizations	
			Autumn 1998. 12 MDL medical staff trained for a month in Hiroshima Japanese Red Cross Society Hospital, Japan	
1999			June 1999. ECHO announces that it will stop funding CHARP	
			September 1999. <i>Third CHARP Evaluation</i> recommends continuing screening for thyroid gland cancer, <i>making rehabilitation of affected communities a priority</i> , developing PSS into a service delivery, considering distribution of L-thyroxin, multivitamins and milk powder as a second-rank priority	
		October 1999. IFRC General Assembly adopts <i>Strategy 2010</i> shifting its focus from relief-oriented systems towards empowerment of communities, capacity building, vulnerability and advocacy. <i>Health</i> is identified as a core area. It also adopts <i>Post-Emergency Rehabilitation Policy</i> calling for <i>complementing rather than replacing the activities of government services and prioritizing community services</i>		

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2000		Early 2000. Sphere handbook <i>“Humanitarian Charter and Minimum Standards in Humanitarian Response”</i> is published		
		During 2000. Restructuring at the IFRC secretariat, Geneva		
2001			August 2001. ECHO funding for CHARP stops. Staff cuts in CHARP due to funding problems	
				November 2001. European Union within its TACIS (Technical Assistance to the Commonwealth of Independent States) programme completes a project aimed at informing the public in Ukraine, Russia and Belarus about the consequences of the Chernobyl nuclear disaster and recommendations on how to live safely in the affected areas
2002			Early 2002. Biopsy tests in the field introduced at the MDL in Brest (Belarus)	Early 2002. Publication of <i>Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery</i> . UN 10-year strategy for Chernobyl launched
				March 2002. IAEA Board of Governors approves a safety requirements publication <i>Preparedness and Response for a Nuclear or Radiological Emergency</i>
			July 2002. Fourth CHARP evaluation suggests continuing screening for thyroid gland pathologies for the priority target group (born in 1969–1987) and continuing discussions with authorities on increasing their financial contribution to CHARP	

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2002			Early 2003. Dutch National Postcode Lottery donates 1 million euro (1,470,000 Swiss francs) to the National Red Cross Society for CHARP. Together with the Japanese and British Red Cross contributions, funding for CHARP is thus secured for 2003–2005	Early 2003. IAEA, WHO, UNDP, FAO, UN Environment Programme, UN-OCHA, UNSCEAR, World Bank, governments of Belarus, Russia and Ukraine create <i>Chernobyl Forum</i> to obtain consensus on the health, environmental, and socio-economic consequences of the Chernobyl accident and to better understand and improve measures to deal with its impact
2003			April 2003. Data analysis of the ongoing medical screening concludes that the collected data cannot be used for scientific research	
			April–May 2003. <i>CHARP evaluation commissioned by the Netherlands Red Cross</i> following the donation of the Dutch National Postcode Lottery recommends continuing medical screening with minor improvements and to develop a programme strategy for 3 years aimed at achieving programme sustainability	
		May 2003. 7th Session of the Governing Board of the IFRC adopts <i>Psychological Support Policy</i> calling for integrating /mainstreaming psychological support into all relevant assistance programmes. IFRC becomes a member of ICRIN Steering Committee and starts participating in decision-making regarding the work of this network	May 2003. CHARP funding strategy for 2003–2005 and until 2008 is developed. The strategy declares the need for National Societies and governments to gradually take over the programme	May 2003. ICRIN is launched by IAEA, UNDP, UNICEF, WHO to meet the priority information needs of affected communities and to translate the latest scientific information into practical advice for residents of the affected territories

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2003			Mid-2003. New equipment for MDLs (scanners, blood and urine analysers, disposables) purchased in the Netherlands. Locally purchased <i>Gaze/</i> mini-buses replace VW minibuses	
			September 2003. ICCRC meeting in Brest approves CHARP funding strategy for the coming 5 years. The strategy focuses on organization and management of the programme, and its position in the institutional setting of the healthcare services in the countries concerned, and presupposes further integration of the programme into the health systems	
			November 2003. The Netherlands Red Cross formally pledges 1 million euro raised through the Dutch National Postcode Lottery and earmarked for CHARP for three years (2003–2005)	
2004			January 2004. Following the new CHARP funding strategy, programme activities are decentralized. Each National Society appoints paid full-time CHARP coordinators	
				March 2004. IFRC plays a leading role in the <i>Forgotten Crises</i> conference in Geneva, which has Chernobyl as a major theme

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2004				April 2004. UN transfers the responsibility for UN coordination of Chernobyl activities from OCHA to the UNDP, thus recognizing that the emergency phase is over. 2nd International Scientific Conference <i>Overcoming the Consequences of Chernobyl Disaster: Status and Perspectives</i> held in Gomel, Belarus
			November 2004. Last exchange of experience workshop for the staff of all MDL teams from the three countries organized in Kiev (later such workshops held in each country separately)	November 2004. UN General Assembly declares 2006–2016, the third decade since the Chernobyl accident, as the <i>Decade of Recovery and Sustainable Development of the Affected Regions</i>
2005			February 2005. Gomel and Mogilev MDLs (Belarus) start performing fine needle biopsy tests for thyroid gland screening in the field. In Russia and Ukraine fine needle biopsy is performed at district hospitals as per local legislation	
			March 2005. Midterm CHARP evaluation recommends continuing screening for thyroid gland pathologies, developing programme strategy, considering possibility of introducing breast cancer screening	Chernobyl Forum produces report <i>Chernobyl's Legacy: Health, Environmental and Socio-economic Impacts</i> . The report recognizes the mental health impact as the “largest health problem unleashed by the incident” and outlines numerous possibilities to better rehabilitate the affected communities

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2006	26 April 2016. 20th anniversary of the Chernobyl nuclear power plant disaster		2006. IFRC delegation in Kiev starts active public relations campaign in connection with the 20th Chernobyl anniversary (intensive contacts with journalists, brochures, photo exhibitions, short documentary)	2006. Chernobyl Forum publishes the report <i>Health Effects of the Chernobyl Accident and Special Health Care Programmes</i> prepared by its Expert Group on Health
2007				November 2007. UN General Assembly proclaims the third decade after Chernobyl (2006–2016) a decade of “recovery and sustainable development”. UN Resolution explicitly recognizes the role of CHARP
2008	2008. International financial crisis: industrial production in Ukraine drops by 15%		2008. Some MDLs start performing breast cancer screening using ultrasound scanners. Suggestions to add HIV/AIDS prevention to CHARP are discussed	2008. IAEA initiates the project <i>Radiological Support for the Rehabilitation of the Areas Affected by the Chernobyl Nuclear Power Plant Accident</i>
2009			July 2009. ICCRC meeting recognizes a serious funding problem, suggests creating resource mobilization departments at the three National Societies, <i>introducing new programme components to attract donors</i> and summarizing CHARP experience for other National Societies in case of another nuclear accident	
				October 2009. IAEA publishes the study <i>Rural Areas Affected by the Chernobyl Accident: Radiation Exposure and Remediation Strategies</i>
2010			August 2010. The IFRC delegation produces photomaterials for the CHARP exhibition and a photo book on CHARP	
			December 2010. The 7th MDL is provided by the German Red Cross to be used in Volyn' oblast (Ukraine)	

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2011	March 2011. Fukushima nuclear power plant (Japan) is hit by tsunami, resulting in the meltdown of 3 of its 6 power reactors			
			April 2011. IFRC Delegation and National Red Cross Societies organise round tables, journalists' visits, exhibitions, articles, interviews and other events for the 25th anniversary of the Chernobyl disaster	April 2011. International UN conference " <i>Twenty-five Years after the Chernobyl Accident: Safety for the Future</i> " is held in Kiev
			May 2011. A 6 minute documentary <i>Chernobyl: 25 Years On</i> , funded by the Norwegian and Japanese Red Cross societies and highlighting the work of CHARP MDLs, is presented at the <i>National Society Consultation Forum on Nuclear Weapons</i> (Oslo, Norway)	
			September 2011. ICCRC meeting concludes that CHARP should be continued, and that <i>efforts should be made to raise funds internationally and locally</i>	September 2011. UN system-wide study on the implications of the accident at the Fukushima nuclear power plant is released. The report contains references to the consequences of the Chernobyl accident food contamination, effects on biota, anxiety in the general population, lack of economic opportunities and information
		November 2011. 18th IFRC General Assembly adopts Decision 11/46 <i>Preparedness to respond to the humanitarian consequences of nuclear accidents</i> commending National Red Cross and Red Crescent Societies for providing "life-saving medical screening, social and psychosocial support" within CHARP and calling for more preparedness work with local communities		

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2011			December 2011. Last refresher workshops on PSS held in Mogilev (Belarus), Rovno (Ukraine) and Bryansk (Russia) for MDL medical teams and Red Cross staff and volunteers	
2012		February 2012. Ukrainian Red Cross is officially included in the state programme for responding to technological and natural disasters in Ukraine		
			March 2012. Last meeting of ICCRC. IFRC and the three National Societies discuss how to further increase local input and how to “gradually hand over in future the programme to the governmental health care system”	March 2012. A UN inter-agency coordination meeting on Chernobyl (IAEA, Vienna) confirms that the overall shift to the development phase in Chernobyl-related programming has been working well
			April–May 2012. Last annual report (2011) for CHARP is produced. IFRC funding for CHARP project is stopped	
2013		February 2013. IFRC establishes a focal point for the Nuclear and Radiological Emergencies preparedness programme in Geneva		
				March 2013. OCHA releases a study on <i>linking humanitarian and nuclear response systems</i> including recommendation that the human dimension of nuclear accidents is taken into consideration in early recovery efforts
				April 2013. UNDP produces study <i>Recovery from Chernobyl and Other Nuclear Emergencies: Experiences and Lessons Learned</i>

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2013		August 2013. The first meeting of the reference group on Nuclear and Radiological Emergency Preparedness in Vienna, Austria		
			September 2013. IFRC representation in Kiev is closed	
		October 2013. IFRC becomes a corresponding member (observer) of IACRNE		
		October 2013. Red Cross Nuclear Disaster Resource Centre – Digital Archive, operated by the Japanese Red Cross Society, is launched		
				December 2013. 68th session of the UN General Assembly adopts resolution <i>strengthening international cooperation and coordination of efforts to study, mitigate and minimize the consequences of the Chernobyl disaster</i> , recognizing the International Red Cross and Red Crescent Movement contribution and encouraging support for recovery activities
2014		January 2014. Reference group on nuclear emergency preparedness meets at the IFRC secretariat in Geneva, Switzerland. The meeting includes a half-day session on CHARP		

Year	World events	International Red Cross and Red Crescent Movement	CHARP	Other actors
2014				May 2014. Inter-Agency Task Force on Chernobyl in Belarus chaired by the UNDP launches a discussion on a new conceptual framework for multilateral international cooperation on Chernobyl
		October 2014. Reference group on Nuclear and Radiological Emergency Preparedness meets in Fukushima, Japan		
2015		February 2015. CHARP review process is launched		
				March 2015. Governments of Ukraine, Russia and Belarus jointly present their Chernobyl experiences at the <i>UN World Conference on Disaster Risk Reduction</i> in Sendai
		September 2015. Reference group on chemical, biological, radiological and nuclear emergency preparedness meets in Berlin, Germany. Launch of IFRC Nuclear and Radiological Emergency Guidelines: Preparedness, Response and Recovery		

Annex 6

CHARP funding, 1990–2015

Income

1. The overall data for CHARP appeals and their coverage in 1990–2015 is summarized in Table A1 below: the 1990 appeal covered 1990–1991, and there apparently was no separate appeal in 1993.

Table A1. CHARP appeals coverage, 1990–2015 (amounts in Swiss francs)

CHF	1990	1992	1994	1995	1996–2015	Total
Appeal budget	4,350,000	880,000	1,341,000	1,463,000	15,827,828	23,861,828
Total funding	3,262,500*	895,000*	865,000	868,000	11,483,935	17,374,435
Coverage, %	75*	101	65	59	73	73

*estimates

2. Overall since 1990 CHARP received nearly 17.5 million Swiss francs out of the nearly 24 million that it requested. Many contributions (e.g., the costs of expatriate staff) were directly covered by donor National Societies and are not reflected in this amount. The appeal coverage varied over the years: on average, it was around 73 per cent. Taking into account the length of the programme, inflation rates and other factors, the actual total received for CHARP in today's prices, even at a conservative estimate, would effectively amount to 23–25 million.

Programme donors

3. Over the years CHARP received support from a number of National Societies. The British, Finnish and German Red Cross Societies were the first donors to the programme. The Danish, French, Japanese and the Netherlands Red Cross Societies joined the programme after the first few years. ECHO was a major donor in 1994–1999. In 2003–2006, the main CHARP donors were the Netherlands, Canadian, Japanese and British Red Cross Societies and the DFID. Since 2006, the main donors of the programme have been the Irish government (through the Irish Red Cross), the Japanese and the Australian Red Cross Societies.

Cost per capita estimate

4. On the basis of the above data it is possible to make an estimate of the programme relative costs *per capita*. Assuming that in 2015 prices CHARP spent around 25 million Swiss francs over a period of 22 years (1990–2012), even at a fairly conservative estimate of the total number of beneficiaries (e.g., 500,000) an average cost per beneficiary would amount to 50 Swiss francs over 22 years (i.e. 2.27 Swiss francs a year!). Should the number of actual beneficiaries be higher, the cost/capita and cost/year drop significantly (see Table A2). It appears therefore that, despite a substantial initial investment in hardware and subsequent running costs, over the years CHARP demonstrated a high overall cost per capita.

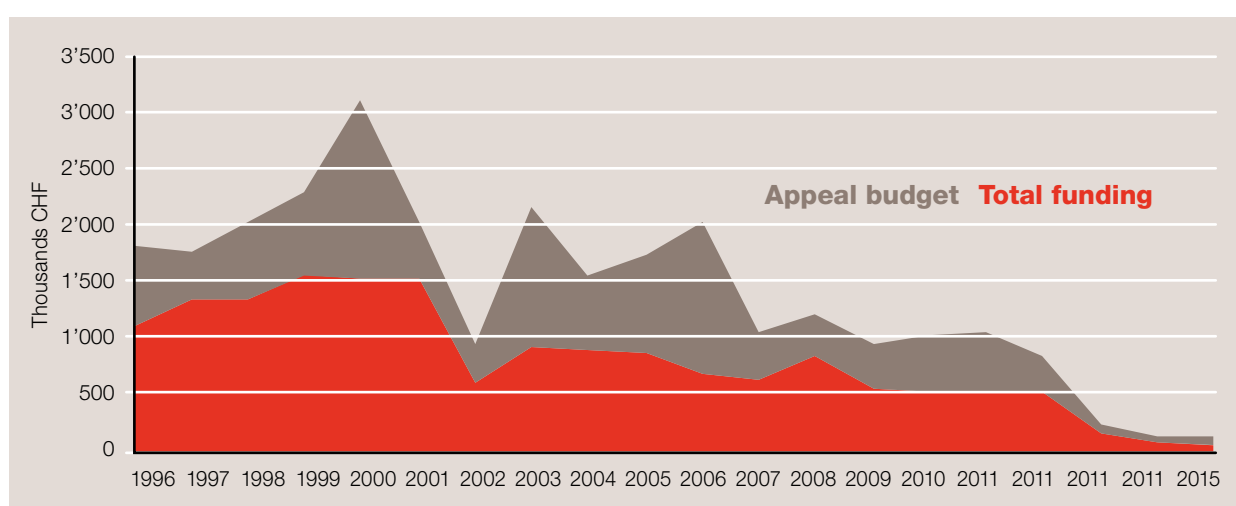
Table A2. CHARP cost per capita estimate
(amounts in Swiss francs, CHF)

Estimated number of beneficiaries	CHF/person	CHF/person/year
2,000,000	13	0.60
1,000,000	25	1.14
500,000	50	2.27

Funding dynamics

5. The funding dynamics for CHARP in 1996–2015 are presented in the diagram below (figure A1).

Figure A1. CHARP funding versus budget, 1996–2015



6. Despite its unusually long time span, *CHARP donor structure and funding pattern were fairly typical of any IFRC emergency response operation*: a relatively high initial response, 50–70 per cent average appeal coverage and a gradual loss of donor interest over time, which revived whenever the event hit the “media radar” again due to another event or new developments. In 1990–2000, the IFRC appealed for 1–1.4 million Swiss francs a year, and usually received around 60 per cent of the amount requested. The relatively high appeal totals in early years were due to a substantial investment in purchasing and then replacing vehicles, hardware and medical equipment. Over 90 per cent of the revised 1990 appeal budget, for instance, was intended to cover the cost of equipment (see Table A3 below).

Table A3. Revised CHARP budget, 1990–1991

Revised CHARP budget 1990–1991	Swiss francs
2,000 radiation detectors and 10 devices for mobile radiation-level control units	1,300,000
10 food monitoring instruments	300,000
Whole body monitors	350,000
Red Cross document production department	100,000
League delegation	150,000
International seminar in Kiev	30,000
Medical equipment (in kind)	2,000,000
Programme support	120,000
<i>Subtotal: medical and other equipment</i>	<i>4,050,000</i>
Total	4,350,000

7. In 2002–2008, the Federation appealed on average for 600,000–800,000 Swiss francs a year. From 2009 this amount was reduced to 500,000 Swiss francs. With the reduced amount requested the coverage slightly improved: during the 22 years of CHARP the appeals were fully covered five times (in 1992, 2000, 2005, 2010, 2011), and twice the coverage substantially exceeded the appeal (138 per cent in 2003, 198 per cent in 2006).

The CHARP donor structure and funding pattern were fairly typical for any IFRC emergency response operation: a relatively high initial response, 50–70 per cent average appeal coverage and a gradual loss of donor interest over time, which revived whenever the event hit the “media radar” again due to another event or new developments.

Annex 7

CHARP data

Beneficiary estimates

1. According to the IFRC sources, over 4.2 million people in total benefited from CHARP during 1990–2011. The data (summarized in Table A4) have been shared with its partners, the UN and other international organizations, and were used in its various communications about the programme since 2012.

Table A4. CHARP beneficiary estimates, 1990–2011

Services provided	Period	Beneficiary estimates
Measurements of <i>background radiation</i> and surface contamination of objects	1990–1993	561,000
Measurements of locally produced <i>food</i> for radiation contamination	1990–1993	139,000
Examination of people for internal irradiation (full body scans), health checks, and blood and urine analysis	1992–1997	401,000
Distribution of <i>information materials</i> (brochures) on protection from radiation	1994–2011	210,000
Distribution of <i>milk powder</i> to children living in contaminated areas	1994–1999	378,000
Distribution of <i>multivitamins</i> to children living in contaminated areas	1994–2011	721,000
Direct PSS	1997–2011	190,000
Thyroid gland screening	1997–2011	1,605,000
Providing <i>L-thyroxin and other drugs</i> , mainly to patients with thyroid gland pathologies	1998–1999	31,000
Total		4,236,000

Source: CHARP Information Leaflet, 2012

2. A closer examination of the above data, however, raises some questions, the most obvious one being the *estimated total number of CHARP beneficiaries*. The aggregate data presented in the summary table represent a sum of the beneficiary numbers for each activity. However, it is obvious that *most beneficiaries benefited simultaneously from more than one activity*. Milk powder and multivitamins were often simultaneously distributed at the same child institution; beneficiaries of thyroid gland screening often simultaneously received some form of direct PSS and information materials; background radiation and food contamination measurements were performed at the same household, etc. In addition, some of the data presented in the table are based on *assumptions*: e.g., the number of beneficiaries for distribution of information materials is assumed to be the same as the number of brochures printed and distributed.

3. Various IFRC CHARP appeals and reports in 1999–2005 estimated the total number of beneficiaries at over 2,000,000 (1990–1998), 2,500,000 (1990–2002) and 2,850,000 (1990–2005). Extrapolating these estimates for 2006–2011, and assuming the same average numbers of people assisted per year, would indeed provide an approximate total number of around 4,000,000 beneficiaries for 1990–2011. However, in the absence of reliable information about *how* the above-mentioned estimates were calculated, and taking into account that possible duplication was apparently not sufficiently taken into account, it appears that the *total estimated number of CHARP beneficiaries would be less than that given by the IFRC*.

The validity of CHARP statistical data

4. Assessing the validity of the data provided for each activity is equally problematic, mainly due to (1) the lack of available source documents and (2) the lack of consistency in presenting the data in the available ones. For the five-year period of 1990–1995, for instance, the review team managed to locate and review only two (out of five) *annual* appeals (1990, 1992) and six *monthly* reports (October 1990, September 1991, May 1993, January and July 1994, and August 1995). Until 2000–2001, no unified formats for presenting CHARP data were used by the IFRC in its appeals and reports. Situation reports and appeals generally followed the structure from the previous document, with widely varying degree of detail in presenting programme data.

Environmental radiation monitoring

5. It is extremely difficult to accurately assess the number of those in affected areas who directly benefited from *environmental and food contamination measurements* in 1990–1993. The official CHARP data list 561,000 beneficiaries of measurements of background radiation and 139,000 beneficiaries of food radiation measurements. Taking into account the fact that in 1991–1993 the measurements of background radiation and of food contamination were carried out simultaneously and that food monitoring continued for another three years, these numbers can only be considered approximate.

6. No reliable and consistent data exist on the number of settlements and/or households where measurements were performed: most environmental monitoring results were reported in the number of “*measurements*”; whenever the number of settlements is mentioned, no size of the settlement is specified. The way the information was presented was inconsistent: the same situation report (September 1991), for instance, simultaneously contained information about 255 food contamination measurements in 41 settlements in July–September 1991, 444,455 dosimeter measurements in 2,247 settlements during November 1990–September 1991 and 10,000 measurements in 231 settlements in May–June 1991.

Medical screening

7. The most consistent and reliable data in CHARP come from *medical screening* by MDLs, mostly starting from 2000. The data extracted from the IFRC programme reports for 1992–2011 (with the reports for four of these years missing) show, for instance, a total of 1,189,736 people screened during this period, mostly for thyroid gland pathologies. The data from the appeals, monthly and annual reports are relatively consistent, showing the total number of individuals screened (with breakdown for adults and children), the number of various pathologies identified and the number of confirmed cases of thyroid gland cancer. A much better level of documenting this particular component is most probably due to the fact that professional medical staff, who used reporting standards commonly applied in the public health system, maintained the screening records.

8. Though CHARP was never intended to be a “scientific” or “research” programme, over the years a substantial amount of screening data was collected by MDLs. In April 2003, at the request of the IFRC delegation, Dr Alexander Komov, former CHARP health coordinator, analysed the screening data with a view to determining their value for research and possible use in promoting the MDL programme component.

9. Dr Komov’s findings, however, were not encouraging. The data collection forms were designed by the MOH and basically equal to standard public health statistical data collected on regular patient admissions (name, age, sex, height, weight, previous health examinations, known diseases and pathologies, medical follow-up), and had therefore limited value for scientific research. Though some of the data were effectively used by some of the National Red Cross and Red Crescent Societies staff and health professionals working on the programme for their own research and scientific work, according to the feedback from WHO and other international organizations, none of this data came out in any significant scientific publications.

Distribution of multivitamins, milk powder and medicines

10. The data for distribution of *multivitamins* start regularly appearing in CHARP reports only from 2004, and are mostly reported as number of “tablets” distributed; it could be roughly estimated that during CHARP implementation around 200–250 million *multivitamin* tablets and 13–15 million tablets of *medicines* (mostly L-thyroxin) were distributed in total. The number of children who actually received the vitamins is mentioned inconsistently and does not allow reliable identification of the total number of beneficiaries. None (!) of the programme reports examined by the review team mentioned the quantities of *milk powder* distributed, so according to the available data it cannot be estimated with any degree of accuracy.

Distribution of information materials

11. The quantifiable data on the information activities are almost completely absent from nearly all CHARP documents: wherever such data exist they are certainly insufficient to present a coherent overall picture. As a result it is impossible to accurately assess the number of people who benefited from this programme component.

Psychosocial support

12. As with the data for other programme components, most of the PSS data are incomplete, inconsistent and often confusing. There is substantial discrepancy in the estimates of the number of *beneficiaries* between different sources: while

the official IFRC data show 190,000 beneficiaries, the total compiled from the available situation reports exceeds 250,000 (with data missing for 1997–1999, 2001–2003, 2005, 2007). From the reports it appears that even these data are estimates at best: PSS beneficiaries mostly seem to be beneficiaries of other programme components (e.g., medical screening), those who attended workshops and lectures, and those who received brochures or listened to radio programmes.

13. Likewise, there are no consolidated reliable data about the total number of training and other activities within the PSS component. Only one (!) annual report (2000) specifically mentions the number of training sessions (279 for 4,849 National Red Cross and Red Crescent Societies staff and volunteers), lectures (244 for 8,585 people), articles (110) and interviews (106). The number of information materials on PSS distributed (a total of 47,000 copies) is only available for 2002, 2005 and 2009. It is therefore impossible to realistically estimate the number of people reached with these activities.

14. Though PSS-related activities were continuously referred to in programme reports and updates after 2000–2001, it appears that the actual activities were sporadic and mostly limited to refresher training for National Red Cross and Red Crescent Societies staff, MDL staff and volunteers. It is impossible to determine from the programme documents to what extent a direct PSS service was still provided. Interestingly, most interviewees had the impression that PSS as a separate programme component never continued beyond 2001–2002.

Financial data

15. In collecting and analysing the financial data for CHARP the review team experienced the same issues as with other programme data. In addition, since the IFRC has changed and/or upgraded its accounting software a few times since 1990, due to changes in project codes the relevant data could not be located automatically and all data for 1996–2015 had to be compiled manually. Since the IFRC was still developing its automated accounting system when CHARP started, most financial records for 1990–1995 only existed as hard copies, many of which were destroyed. Therefore, the financial data for that period could only be estimated.

Gaps in IFRC data, records and knowledge management

16. The review process also demonstrated some gaps in IFRC data, records and knowledge management:

- A number of key CHARP documents, including the initial League assessment report, were lost or destroyed (as per the IFRC rules) at the IFRC secretariat and its delegations in Kiev and Minsk, and could only be located in private document collections of the IFRC and National Societies' staff who took the personal initiative to keep them.
- Despite the commendable efforts of a number of IFRC staff in Geneva and Budapest, due to a number of financial software changes since 1995, sufficiently consistent financial data on CHARP (basic income and expenditure) could be compiled only manually (by locating and reviewing the existing annual and monthly programme reports), and only starting from 1994.
- The annual IFRC CHARP reports could only be accessed on the IFRC website via the links provided by the digital archives of the Japanese Red Cross Nuclear Disaster Resource Centre.
- Neither the IFRC nor the ICRC public websites contained any direct links to decisions, resolutions or documents of the International Conferences, Council of Delegates, IFRC General Assemblies and IFRC Board of Governors. The required documents had to be located via a Google search or through individuals at the IFRC secretariat.

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 Bryansk 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.

The Fundamental Principles of the International Red Cross and Red Crescent Movement

Humanity The International Red Cross and Red Crescent Movement, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours, in its international and national capacity, to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace among all peoples.

Impartiality It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours to relieve the suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

Neutrality In order to enjoy the confidence of all, the Movement may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature.

Independence The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

Voluntary service It is a voluntary relief movement not prompted in any manner by desire for gain.

Unity There can be only one Red Cross or Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

Universality The International Red Cross and Red Crescent Movement, in which all societies have equal status and share equal responsibilities and duties in helping each other, is worldwide.

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