

# 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 km<sup>2</sup> 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).