

# INFORMING AND EDUCATING THE PUBLIC ON RADIATION RISKS

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## ABSTRACT

Over the last decade, and especially since the Chernobyl accident, the need for informing and educating the public on radiation risks has been widely recognised by decision-makers around the world. In principle at least part of this task can be fulfilled by radiation protection professionals in that they know the subject and can, therefore, give correct and objective information and advice. However, since they generally lack experience of communicating with the public, suitable training programmes will be necessary. Such training should cover not just direct communication but should emphasize communication with information intermediaries, such as the media, the medical professions, the decision-makers and the educators. IRPA as a professional organisation should envisage taking up such training programmes in its future activities.

## INTRODUCTION

The interest of competent authorities, politicians, nuclear utilities and radiation protection professionals in public information and education has strongly increased over the last decade in recognition of growing public concern for the environment in general and radiation protection aspects in particular. The problems of dispassionate communication with the public after the Chernobyl accident gave added impetus to this trend.

Whereas previous activity in this field was largely confined to the nuclear energy lobby, seeking to underline the advantages of nuclear power and to anti-nuclear organisations, promoting doomsday images of radiation risks, international, national and local authorities are now taking initiatives to improve communications, often with limited success. Initial efforts largely focussed on major nuclear accident risks, but there is now a burgeoning interest in the longterm consequences of low level exposure.

Public opinion surveys in Europe from 1988 to 1991 indicate widespread dissatisfaction with available information (1). The major criticisms are that such information is inadequate, unclear and unreliable but also refer to poor and slow distribution. The credibility of

the various information sources, is highest for (independent) scientists and medical practitioners, and lowest for government and government bodies; in addition to clarity, "good" information requires the authority of scientific knowledge coupled with independence from vested economic industrial and political influence.

#### INFORMATION INTERMEDIARIES

The normal public information channels are via intermediaries, the most important being:

- the media,
- the medical profession,
- the decision-makers, politicians and trade-union leaders.
- the educators,

Each of these tend to reach particular sectors of the general public and with different objectives.

The media play the most direct role in informing the public about risks from ionizing radiation. It is often said that, if the layman is not well informed, it is the fault of the media. They are criticized for being selective, tending to exaggerate controversy and uncertainty (2), introducing inaccuracies and omitting significant information.

It should, be borne in mind, however, that journalists operate under considerable constraints such as deadlines, editorial pressure, simplicity of presentation, currency of information and limited technical knowledge (3). The last point is particularly important; journalists cannot be expected to appreciate all aspects relevant to judging a situation. As Maclachlan has said (3), "The journalists' best allies in this regard are good common sense and trustworthy sources". Here, professionals in radiation protection can help by giving simple, correct but clear information on radiation risks.

The medical profession, including doctors, pharmacists and nurses, is for many a confidant for all problems related directly or indirectly to health. Training and education of this group on radiation risks, and especially on the possible radiological consequences of nuclear accidents, is, therefore, of extreme importance to public comprehension and averting mistaken, overhasty conclusions on health effects, as was the case on several occasions after the T.M.I. and Chernobyl accidents.

The decision-makers and politicians have the last word in deciding policies related to ionizing radiation but the trade-unions can considerably influence the formulation and execution of such policies.

After the Chernobyl accident we saw several instances of the scientific reality having little influence on political decisions taken to protect the public. One reason for this may be political opportunism but another, no less important, is ignorance. As in the case of the media, the decision-makers and trade-union leaders cannot have specialist knowledge of all fields; they need have trustworthy advisers.

However, the educators, especially teachers in primary and secondary schools, are probably in the longer term the most important group of intermediaries. They are in direct contact with the younger generation, many of whom will continue to draw on what they were taught long after they have left school and perhaps themselves become members of an intermediary group. However, since most teachers are strong defenders of environmental protection, which is appreciated by everybody, they are often anti-nuclear and, due at least partly to gaps in their own knowledge, may consider radioactivity as one of the biggest dangers.

As a result pupils are misinformed from the outset and it will be extremely difficult to change their attitude in later life. Education of the educators must be a first priority.

Within the European Community a programme has been started recently to have environmental studies included in all primary and secondary school curricula by the year 2000 at the latest and listed as a formal examination option as soon as possible after that date (4). Teacher training programmes are being initiated and pilot radiation protection training manuals for teachers in primary and secondary education have already been produced (5).

#### RADIATION PROTECTION PROFESSIONALS AND PUBLIC INFORMATION

The general public's attitude towards radiation risks depends more on the credibility of the speaker than on the information given. Since practically all opinion surveys show an appreciable public faith in scientists because they know the subject and therefore can give correct and objective information (provided they are seen as independent), radiation protection professionals should consider assistance in informing and educating the public as part of their vocation.

Unfortunately a reproach, often encountered and too often well founded, is that the experts use language unintelligible to the layman. In a talk at a NEA workshop in 1987 (6) Dr. Wilkie, presenting the journalist's view, said about professionals: "... if a journalist telephones them, then they are nervous, hesitant to talk; they answer the questions precisely with myriad qualifications (which never realistically have a hope of getting printed)".

Thus, what the radiation protection professionals really need is training in public communication techniques since most have no experience in this field. Since most health physicists will rarely have direct contact with the public at large the first task will be training on how to inform and educate the intermediary groups. Moreover, since the objectives and backgrounds of these groups differ, it is clear that each has to be treated separately, although the final aim will be the same, i.e. to allow the development within the public of a well-informed and realistic attitude towards radiation which should be recognized as no more than a feature of everyday life. More initiative is needed in this field.

## CONCLUSIONS

All those having social and political responsibilities are convinced of the necessity of informing and educating the public on radiation risks. This task can, at least partly, be fulfilled by the radiation protection professionals, particularly in support of identifiable intermediary groups. But, since communicating with the public is an art in itself, it should not be undertaken without prior training. IRPA, as a professional organisation, should envisage initiating such training programmes in its future activities.

## REFERENCES

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