WORKING GROUP 2

CONSIDERATIONS IN CHOOSING DOSE REFERENCE LEVELS

Q1: What are the most important factors to consider when trying to determine what levels to set ?

- Health risk (detriment)
- Practicality/realism
- Potential for improvement
- Cost
- Distribution of exposures/equity
- Variation of the natural background
- Social and individual benefits
- Prevention versus mitigation
- Graded approach

Q2: Should reference levels always be set in terms of annual (committed) effective dose? What about potential or probabilistic exposures ?

- RL should be primarily set in terms of effective dose (actual or expected)
- RL can also be set in terms of derived quantitates such as concentration, radiation field etc linked to the dose
- RL may be set in terms of risk for potential exposures but limited practical use.

Q3: What would be considered to be suitable dose reference levels ? For example, for a legacy NORM site, for a post-nuclear emergency scenario, for air crew ?

- For legacy site : 1 mSv/a
- For radon : 10 mSv/a i.e. ~ 300 Bq/m3

  Some members of the group consider that 10 mSv is too high for both public and workers (non occupationally exposed)
- Post-nuclear emergency scenario : 1-20 mSv/a
  - Lower ends of the 1 to 20 mSv/a range as intermediate
  - Long term : 1 mSv/a
- Air-crew :
  - Between 5 and 10 mSv /a
  - For pregnant workers 1 mSv/a

Q:4 To encourage optimisation, do we need to establish a “lower dose reference level” ie, to indicate the opposite end of the “optimisation zone” ?

- No, because this is contrary to the optimisation principle
- Possibility to lower the reference level to accompany the progress of optimisation (for example in post-emergency situation)

Any other important thoughts ?

- Sharing experience between experts but also between stakeholders
- Development of a narrative about success stories to raise awareness in the affected population
- Involvement of communication experts to engage stakeholders
- Characterization is a long and resources demanding process
- Importance of raising the competence of professionals specially teachers and doctors