Health Physics and Isotopes & Radiation Special Section

the longevity of residents of high natural background radiation areas and "260 mSv/y for 35,000 people" of Ramsar are not known to me, and I have done extensive research in such areas worldwide, on which some data are given below. I have also been involved in organizing seven international conferences on such high-level natural background radiation areas since 1990—held in Iran in 1990, China in 1996, Germany in 2000, Japan in 2004, India in 2010, the Czech Republic in 2014, and again this year in Japan, September 24–27 at Hirosaki University—where such topics are the main themes of the conference.

According to Iran's 2016 census, Ramsar's high natural background radiation areas with a small population (just over 1,000) in about 374 families have annual effective external doses (indoors and outdoors) ranging from about 0.7 to about 131 mSv/y, with a mean of about 6 mSv/y, and from internal doses due to radon-222 from about 2.5 to about 72 mSv/y, with a cumulative dose (external and internal) ranging from about 3.2 to about 203 mSv/y.[10,11,13-15] On the other hand, the individual external doses in normal areas of Ramsar city, with a population of about 35,000, range from about 0.56 to about 1.51 mSv/y, with a mean of about 0.67 mSv/y. The mean internal dose due to radon-222 in two counties, Katalom

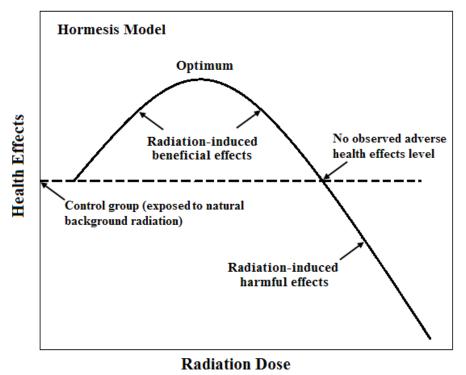


Fig. 2. A classic presentation of hermetic dose-response in respect to a control group exposed to natural background radiation.[3]

and Chaboksar, in Ramsar, with populations of 20,716 and 8,228, is about 2.38 and about 2.48 mSv/y, respectively.[11,13–15] Therefore, the mean integrated internal and external dose of an individual member of the public in Ramsar city, not in its high background radiation areas, is only about 3.1 mSv/y. Therefore, Ramsar city

