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Editorial

Great East Japan Earthquake: Proactive sharing of lessons learned

After the Great East Japan Earthquake and subsequent Fukushima Daiichi nuclear power plant accident (Great East Japan Disaster, GEJD), numerous pediatric health challenges arose in the communities within the disaster-stricken area, and childhood obesity was one of them. Moriyama *et al.* identified an increased prevalence of obesity in elementary school students in Rikuzentakata City, Iwate Prefecture, Japan, 4 years after the earthquake and devastation by tsunami.[1] They attributed the increase in obesity to sedentary life in temporary housing. This is closely connected to the current discussion of the nationwide study of obesity, given that the number of playground yards are decreasing due to conversion of the school yards to temporary housing.[2]

Children are a vulnerable group, easily susceptible to disasters. There are many lessons to be learnt from the GEJD in the handling of future disasters. As always, infectious diseases such as influenza-like illness (ILI) threatened the children's health. We must not forget that one foreign journalist traveled around the disaster area with symptoms of measles, but fortunately, this did not result in an outbreak of measles.[3] Evacuation caused great risk of life to the elderly,[4] whereas children's exposure to radiation was a problem when evacuation was not done, and the trade-off became a problem. Concerns also emerged about stigmatization in regard to radiation exposure.[5] As a result of radioactive contamination and subsequent school restrictions on outdoor activities in Fukushima, even though the restrictions were not associated with children's weight status, concern remained that a burden was imposed on some of the more socially vulnerable children because the difference in weight between before and after, increased in the 5 years after the disaster.[6]

We should also, however, share good practices that emerged from the disaster. Emergency rotavirus vaccine immunization conducted by the Japanese non-profit organization HANDS in collaboration with the Kesen region vaccine fund was successful in preventing an outbreak of gastroenteritis among the refugee children.[7] Non-profit activities offered by the company Carepro, in which staff checked the health status of volunteers, helped to halt the spread of common infectious diseases including ILI and gastroenteritis.[3] Repeated evacuation drills based on the tradition of "tsunami tendenko", in which the need (spread by word of mouth) to evacuate quickly without waiting for others, to avoid a tsunami after big earthquakes, resulted in the saving of approximately 3,000 primary school children.[8] Although anxiety about radioactive contamination remained strong, radiation dose in children exposed to both internal and external radiation was maintained at a low level due to countermeasures taken after the disaster such as strict food control and decontamination.[9]

By accumulating both good and bad lessons, we can learn a lot even from one disaster. Our future mission will be to share scientific evidence gleaned from the GEJD. Irrespective of the positives and negatives, sharing lessons is one of the best prescriptions for preparedness against disasters.

Disclosure

The authors declare no conflict of interest.

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