

# Estimating Resource Management of Nursing Home Support in the Assumed Tokyo Metropolitan Earthquake

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## Abstract

This study proposes elements for creating scenarios covering those needing support during a natural disaster, comprising: 1) coefficients for scenarios concerning those needing support during a disaster, and 2) quantitative damage estimation cases related to facilities for those needing support during a disaster. These elements have not been incorporated into conventional damage estimation. The scenarios were applied to Tokyo, which is assumed to be an area affected by earthquakes occurring directly beneath the Tokyo Metropolitan Area, to establish a support system and implement map training.

## Estimate the Resources Damage

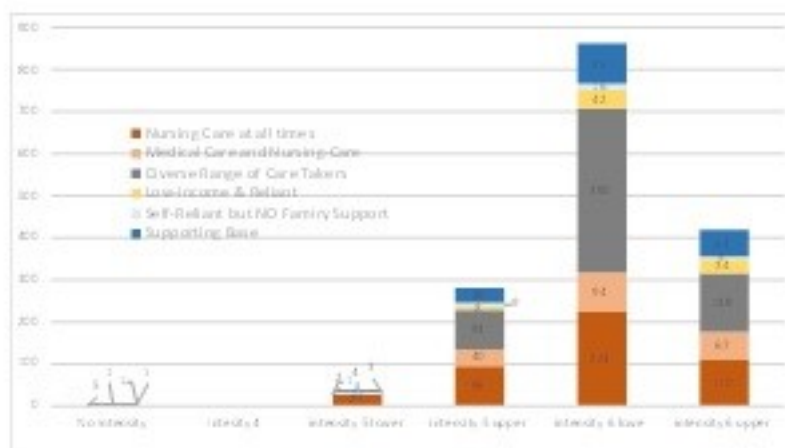
2011 East Japan Earthquake created disaster awareness in Japan more than ever before. The fact raises awareness more than the possible occurrence of the Mega Urban Earthquake, which directly hits Tokyo is expected 70% in 30 years. The research outcome is highly expected to implement the workable disaster response in social welfare field.

We constructed the geospatial data of social welfare facilities in Tokyo. 1609 facilities exist which contribute facility care services. We overlapped the layer of this map to the seismic intensity map of assumed Earthquake in northern Tokyo Bay, which is expected to bring the most severe damage. There were 12 types of facilities categorized by the class of social services; however, detailed classification is not necessary for disaster responders to consider the resource dispatch in emergency phase. So we re-classified those 12 to 5 focusing on the disaster vulnerabilities. Figure 2 shows the result of the analysis. There were 97.1% facilities are in the area of over intensity 5 upper, which means that 104,879 people might be affected; however their numbers contains self-reliant people. The important thing is to detect how much reliant people in the category named “Diverse Range of Caretakers” in order to implement the resource assessment properly.

As the outcome of this research Tokyo Metropolitan Social Welfare Council decided to improve resource management system based on our research outcomes; 1) construct operational posts of social welfare support in each administrative district, 2) develop task forces in order to be varied to suit the situation after disasters. The resource management model made it possible to vary the situation on real time basis. The goal of this study is to establish disaster reduction measures to avoid a national crisis by dividing the fluctuating and independent part: the former is addressed by disaster reduction policies, while the latter is tackled by proposing and implementing disaster reduction action plans. The research results were proposed in “study committee of broad welfare support for disasters in Tokyo” to facilitate better understanding of the assumed damage of those needing support and welfare facilities during earthquakes occurring directly beneath the Tokyo Metropolitan Area. The accomplishments of this study include proposing components for scenarios to be established concerning those needing support during a national crisis disaster. For this purpose, a study on the services of an organization structure, including expert volunteers, was led by the Tokyo Council of Social Welfare, which usually works for those who needs nursing care.

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Keywords: Tokyo Metropolitan Earthquake, Vulnerable population, Resource management



**Fig. Social Welfare Facilities Classified in Assumed Seismic Intensity Scale of the Japan Meteorological Agency**