

Overview

Background & Objectives: On March 11, 2011, a severe earthquake hit the northeastern part of Japan. Some studies have been conducted to analyse the healthcare-related influences of the earthquake (e.g. Tohoku University study on their patients), however, few studies exist to show to what extent the patients in the disaster areas are affected by the quake compared with the rest of Japan.

This paper aims to understand the impact of the earthquake in the disaster area by comparison with the level before the earthquake and with the rest of Japan.

Results: In the disaster areas, there was a statistically significant* increase from the 2010 baseline level for the atrial fibrillation (AF), pediatric asthma, and anxiety disorder compared with the rest of Japan. In addition, the prevalence of PTSD in the disaster areas was significantly higher* after the earthquake compared with the rest of Japan.

Methodology

Data were obtained from PatientsMap (Japan data 2010 and 2011), a database based on web survey with physicians on the patient population for 380+ diseases. Chronological and geographical analyses were conducted by comparing the 2011 levels with the 2010 level, and by comparing the disaster areas with the rest of Japan.



Rest of Japan:
All other areas of Japan

Disaster areas:
Iwate, Miyagi, and Fukushima prefectures in the northeastern Japan were most severely damaged by the earthquake (99% of the disaster-related deaths occurred in these areas)

Fielding for PatientsMap Japan:

- **2010:** June 2010 (n=20729)
- **2011:** June-July 2011 (n=21558)

For the purposes of this paper, the analyses were conducted for diseases with 2.0 or more patients per month per physician.



PatientsMap is a database developed by SSRI and m3 on the patient flow and other aspects based on web-survey with 27,000+ physicians in Japan and US covering 380+ diseases.

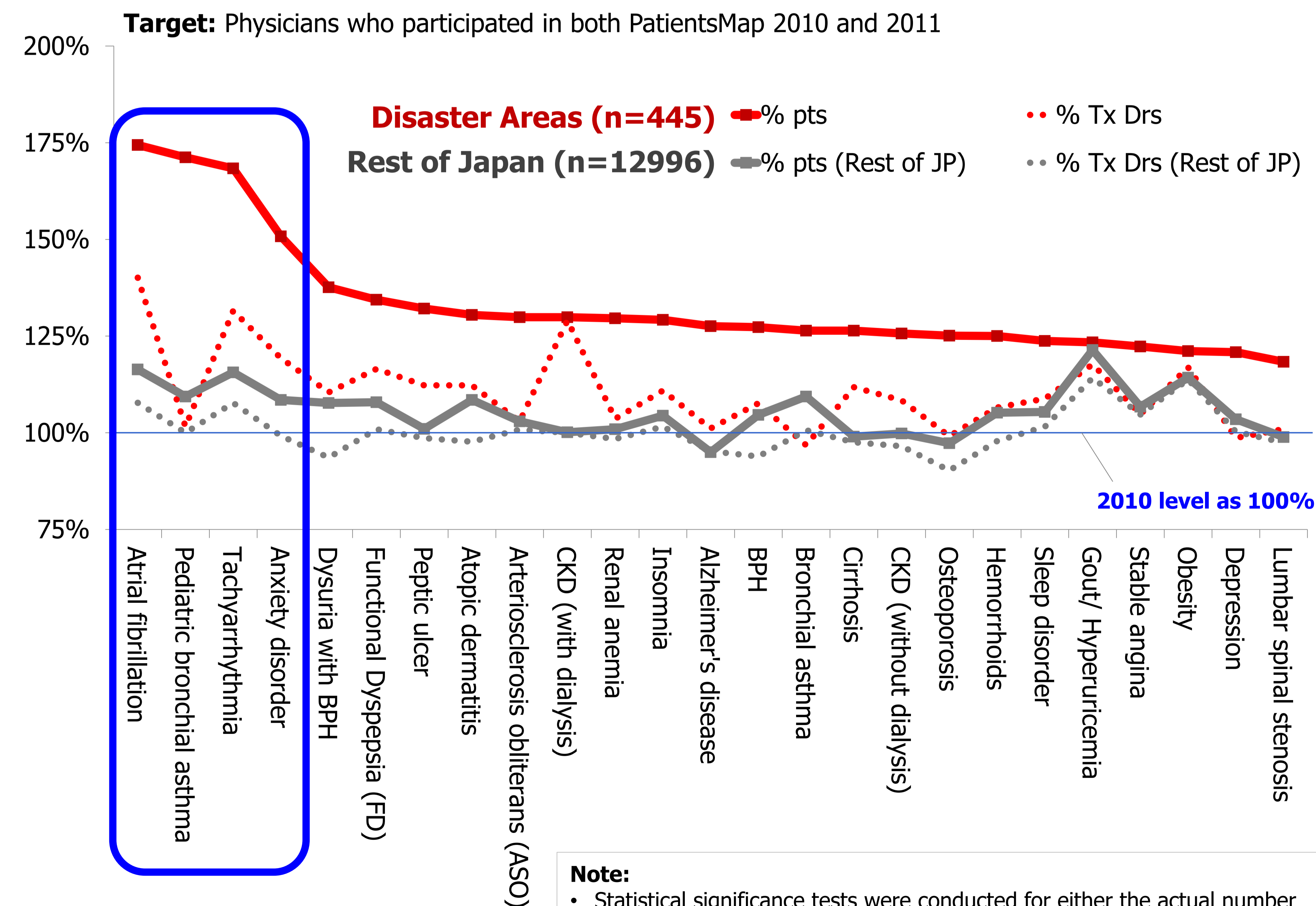
Increased AF, Asthma, and Anxiety

Analysis: We looked at the level of change after the earthquake in 2011 compared with the baseline level in 2010 for both the disaster areas and the rest of Japan regarding the following indicators:

- 1) % of patients suffering from each condition out of all patients under management
- 2) % of physicians seeing each condition out of all physicians

Results: Statistically significant increase* in the growth in the number of patients with **Atrial fibrillation, Pediatric bronchial asthma, Anxiety disorder** were observed.

% in 2011 Compared with 2010 Level as 100%



Higher PTSD in the Disaster Areas

Analysis: We looked at the % of patients with different psychiatric conditions after the earthquake and how it is different in the disaster areas when compared against the rest of Japan as baseline (i.e. Rest of Japan as 100% for all conditions).

Results: Significantly higher* % of patients were suffering from PTSD in the disaster areas compared with the rest of Japan.

% of Psychiatric Conditions in the Disaster Areas Compared with Rest of Japan as 100%

