

Foreword

This *Atlas of Health Inequalities in Japan* accomplishes many intentions, and it is particularly novel because of the new and innovative visualization techniques used. First, patterns never seen before across the islands of Japan are revealed. Second, those patterns are seen to be changing in ways that should direct future research toward the greatest needs. Third, the true horror of the terrible 2011 Great East Japan Earthquake, one of the worst natural disasters in human history, is highlighted. Fourth, it illustrates for everyone how the use of advanced cartographic techniques enables us to see all these matters in ways not possible until relatively recently. Further, we can see that these issues of medical interest and inequality have never been visualized so comprehensively and thoroughly as in this atlas.

Traditional medical mapping hides, within tiny scattered specks of color, what is happening to the great majority of people living in cities. Traditional mapping draws the reader's attention toward large, sparsely populated areas, which may be of value when events in those areas are of the greatest interest. However, when studying people, and the geographic patterns of their health outcomes, traditional equal area map projections can completely distort the message to be received, leading the viewer to believe that something that is happening is important when it actually quite minor, and diverting their attention from what is really happening to most people. The use of equal population cartograms in this atlas of health inequalities ensures that each person in Japan is given equal representation on every map.

Not all inequalities are geographic. Early on in this atlas inequalities by occupation are investigated, revealing, for example, that the suicide rates of managers in Japan, below average until the late 1990s, rose during the first decade of the twenty-first century to become more frequent than among people working in other occupations or those people in professional occupations (Fig. 2.3).

Not all inequalities in health are best illustrated by studying mortality. The rise in the rate at which boys and girls in Japan are becoming overweight is shown, in this atlas, to be influenced by whether they have a sibling. It is often necessary to consider many factors at once, such as geographic area, gender, age, occupation, family structure, and all the many changes over time in such issues that can also influence our health. An atlas is the ideal way in which to do this, and this particular atlas is a brilliant example of how best to achieve such a set of considerations without overwhelming the reader.

This volume is also one of the first health atlases to be produced worldwide that does not shy away from explaining in detail complex measures such as the slope and relative indices of inequality. In this, it is reminiscent of the earlier, extremely methodical work of Peter Haggett, Mathew Smallman Raynor, Andrew Cliff, and Peter Gould, but here drawn using a very different perspective, especially suitable for a country so densely settled by so many people, and becoming increasingly more and more densely populated in a relatively small area of land.

The use of 3D perspectives and often the full range of color is especially striking. As one example, the maps of smoking show truly amazing geographic variation, both within cities and across the country, simultaneously (Fig. 3.31). The traditional mapping in detail within Osaka Prefecture is particularly stunning (Fig. 7.5).

Inequality is the key theme of this atlas. The rising geographic inequalities in mortality over time of men aged over 40 years, of boys and girls, and recently of most women of all ages is an especially worrying development (Fig. 7.2). The contribution of driving accidents to these changes suggests what may be occurring (Fig. 7.4). It is very possible that the latest worse inequality statistics are mainly a result of the deaths caused by the Great East Japan Earthquake. However, even before then, in many cases, geographic inequality in mortality in Japan was slowly increasing. As Japanese cities become ever more safe, people in rural areas may appear to suffer relatively more, as these people still rely upon their cars (one of the most dangerous of all human inventions).

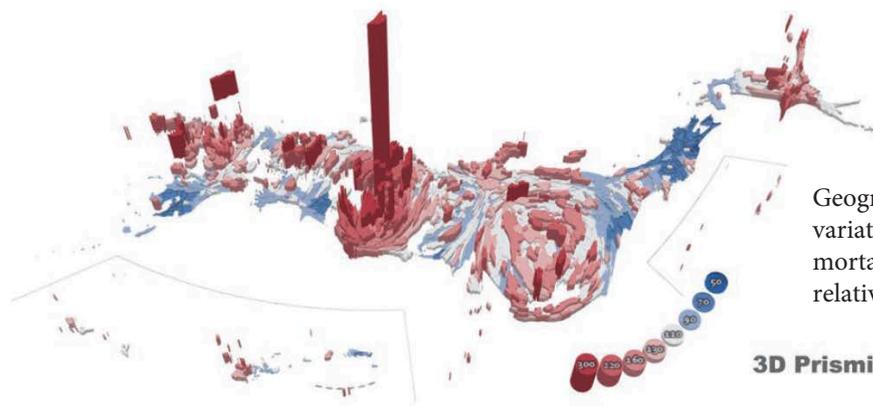
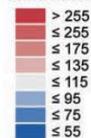
After several decades of unprecedented low economic growth for Japan, an era that since 2008 that might well be beginning for many other countries, the messages of this atlas are of great importance to people all around our world. Japan is now often ahead of the curve, and so there is much to learn from this atlas for those living in countries where people have not yet managed to live so long on average. In Japan, geographic inequalities in deaths from the main causes—cancer, cerebrovascular disease, heart disease, pneumonia—are now rising, and especially so for cancers. Why is this? And could this be the future for many other parts of the affluent world in the years soon to come?

The editors and authors are to be greatly congratulated. To coordinate thirteen scholars from such a wide range of academic departments and universities is no easy task. To persuade a publisher to include so much complex material in one volume is also very difficult, and to cover so well, and so clearly and concisely, such a wide range of diseases, topics, other health-related material, and social and economic factors is a major achievement. The *Atlas of Health Inequalities in Japan* should be seen both as a model of great innovation that requires replication not now seen elsewhere and as a key resource for policy makers, researchers, and the general public in Japan, who want to know about the most important part of all our lives—our health—and how in aggregate this is changing.

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**Malignant
mesothelioma
women**

SMR Colour Legend



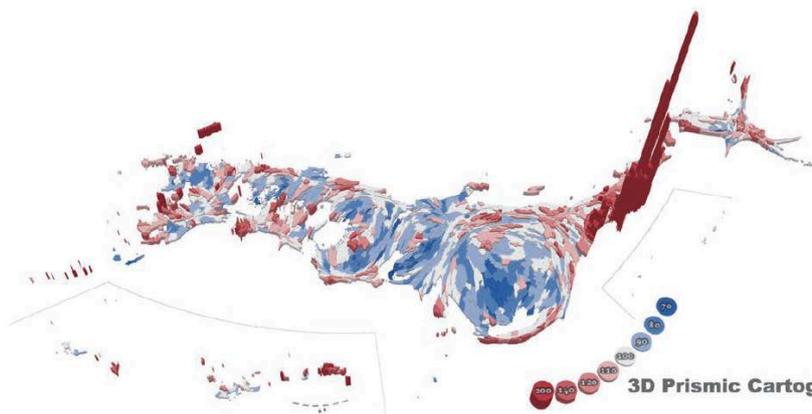
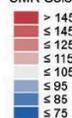
Geographical variation from mortality due to a relatively rare cause.

3D Prismic Cartogram

b

**15-39 years old
Women**

SMR Colour Legend



All cause mortality. The effect of the Great East Japan Earthquake (one of many examples).

3D Prismic Cartogram