

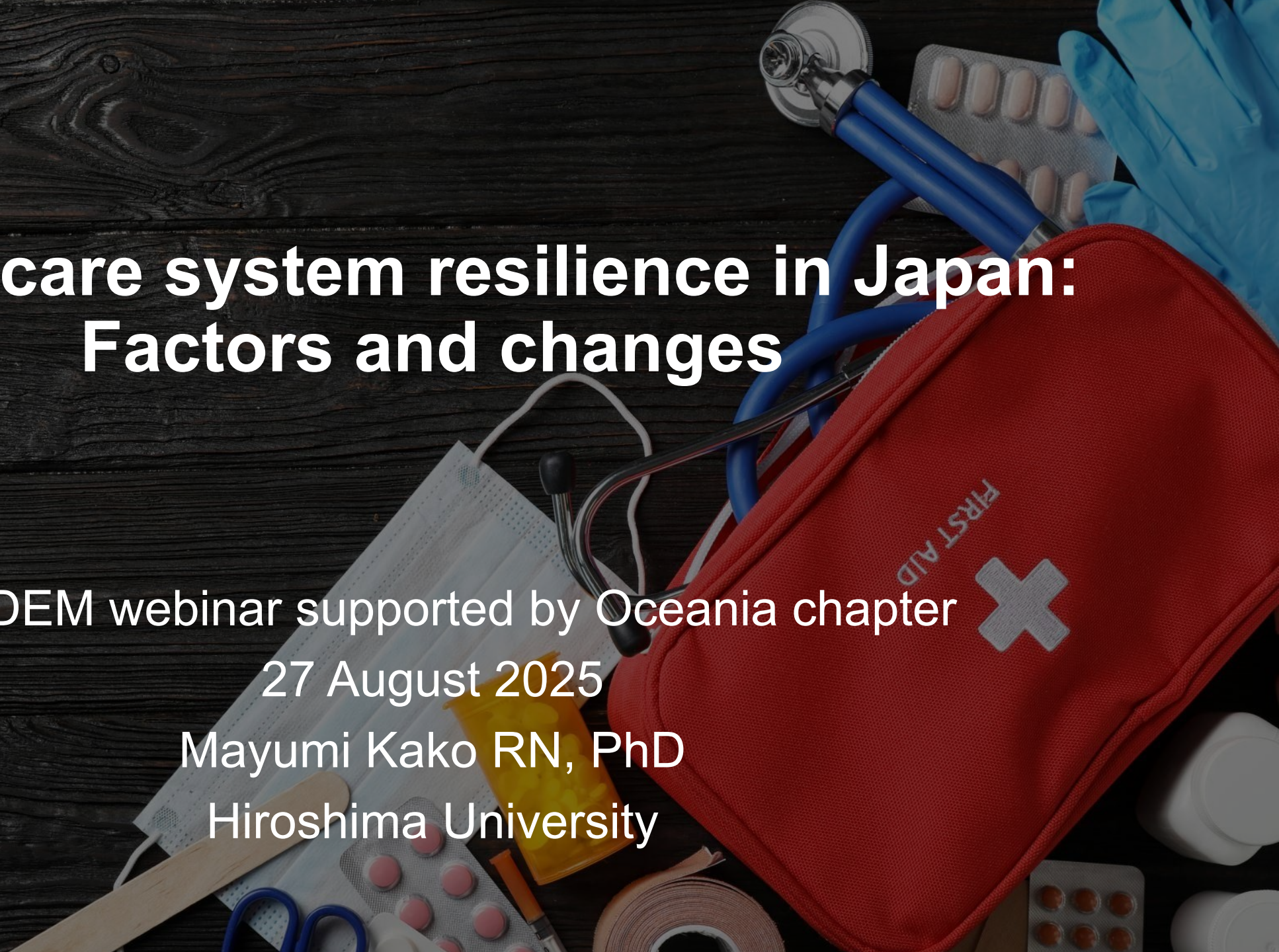
# Healthcare system resilience in Japan: Factors and changes

WADEM webinar supported by Oceania chapter

27 August 2025

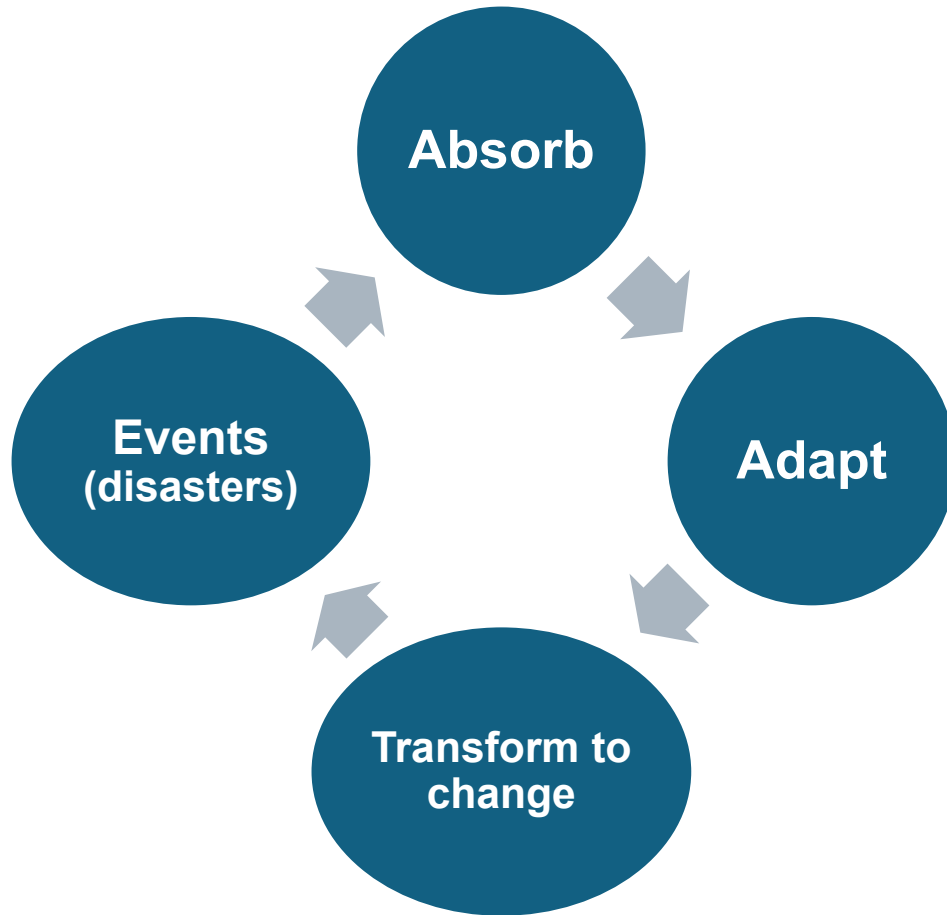
Mayumi Kako RN, PhD

Hiroshima University





# Contents to talk: Healthcare system resilience



- ...is continuous process
  - Disaster Resilience Scorecard for Cities: Public Health System Resilience – Addendum
- Japan's progress, challenges, and future directions.
- Some of this presentation contents is based on my personal view.

Disaster Resilience Scorecard for Cities: Public Health System Resilience - Addendum



# Background - Key Challenges to Resilience

- Societal changes: Aging workforce and population.
- Universal health coverage since 1961.
- Increasing pressure on long-term care and primary care.
- Regional disparities (urban vs rural healthcare access).
- Disaster hazard exposure (e.g., 2011 Great East Japan Earthquake, flooding and landslides, volcanoes, COVID-19 impact).





The diagram illustrates the Earthquake Hazard Map of Japan, showing the probability of earthquake occurrence and labels for major fault zones and subduction-zone earthquakes.

**[ Probability ]**

- Higher \* {
  - $\geq 26\%$
  - $6 \sim 26\%$
  - $3 \sim 6\%$
- High {
  - $0.1 \sim 3\%$
  - $< 0.1\%$

**Note \* :**  
 Probability of earthquake occurrence with the JMA intensity larger than 6 lower within 30 years by the Poisson process:  
 26% ----- Approximately once every 100 years on average  
 6% ----- Approximately once every 500 years on average  
 3% ----- Approximately once every 1000 years on average

**[ Label of major fault zone ]**

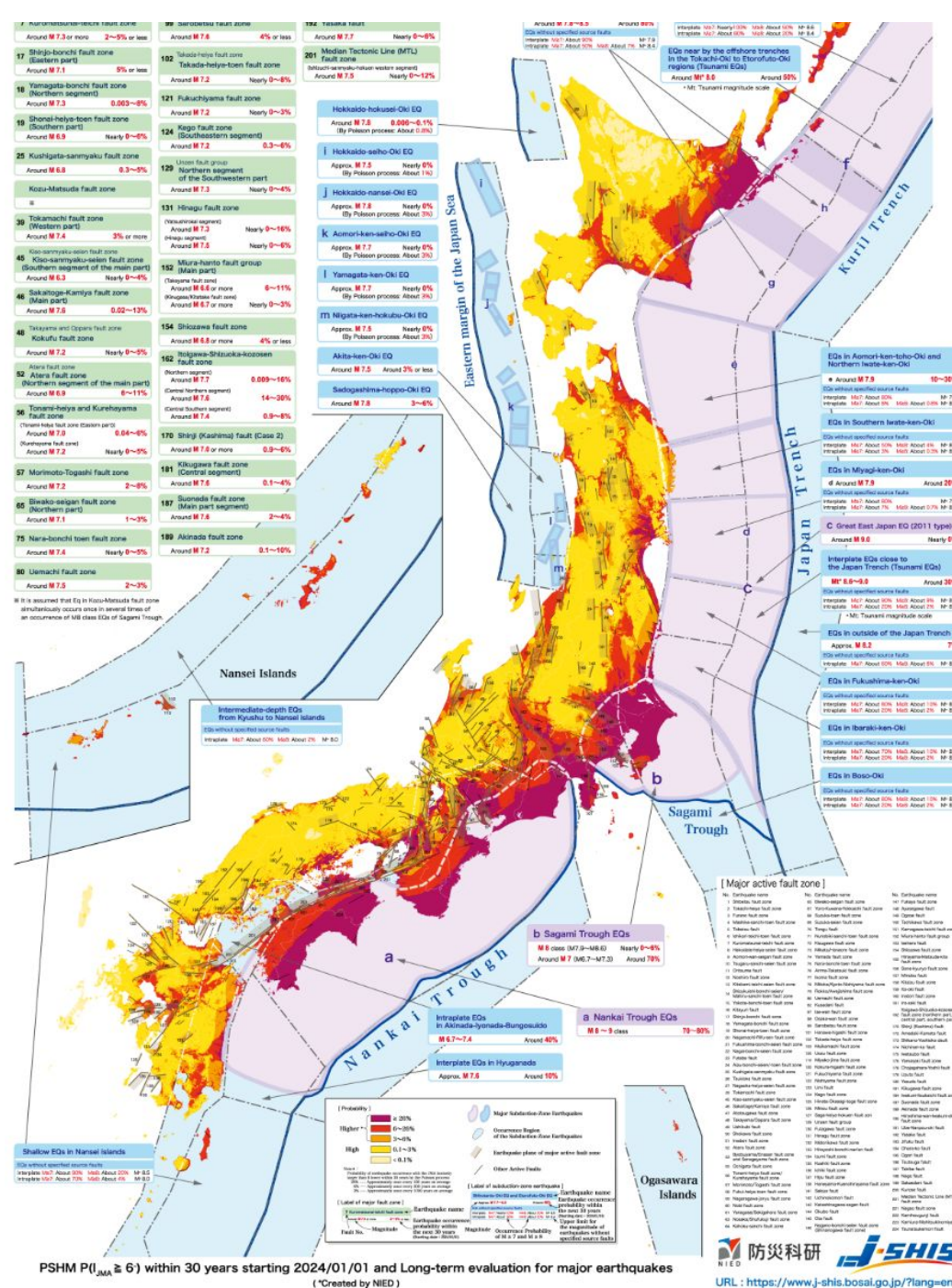
**Earthquake name**  
 7 Kuromatsunai-teichi fault zone  
 Around **M 7.3** or more **2~5%** or less  
**Earthquake occurrence probability within the next 30 years**  
 (Starting date : 2024/01/01)

**Magnitude**  
 Fault No.

**[ Label of subduction-zone earthquake ]**

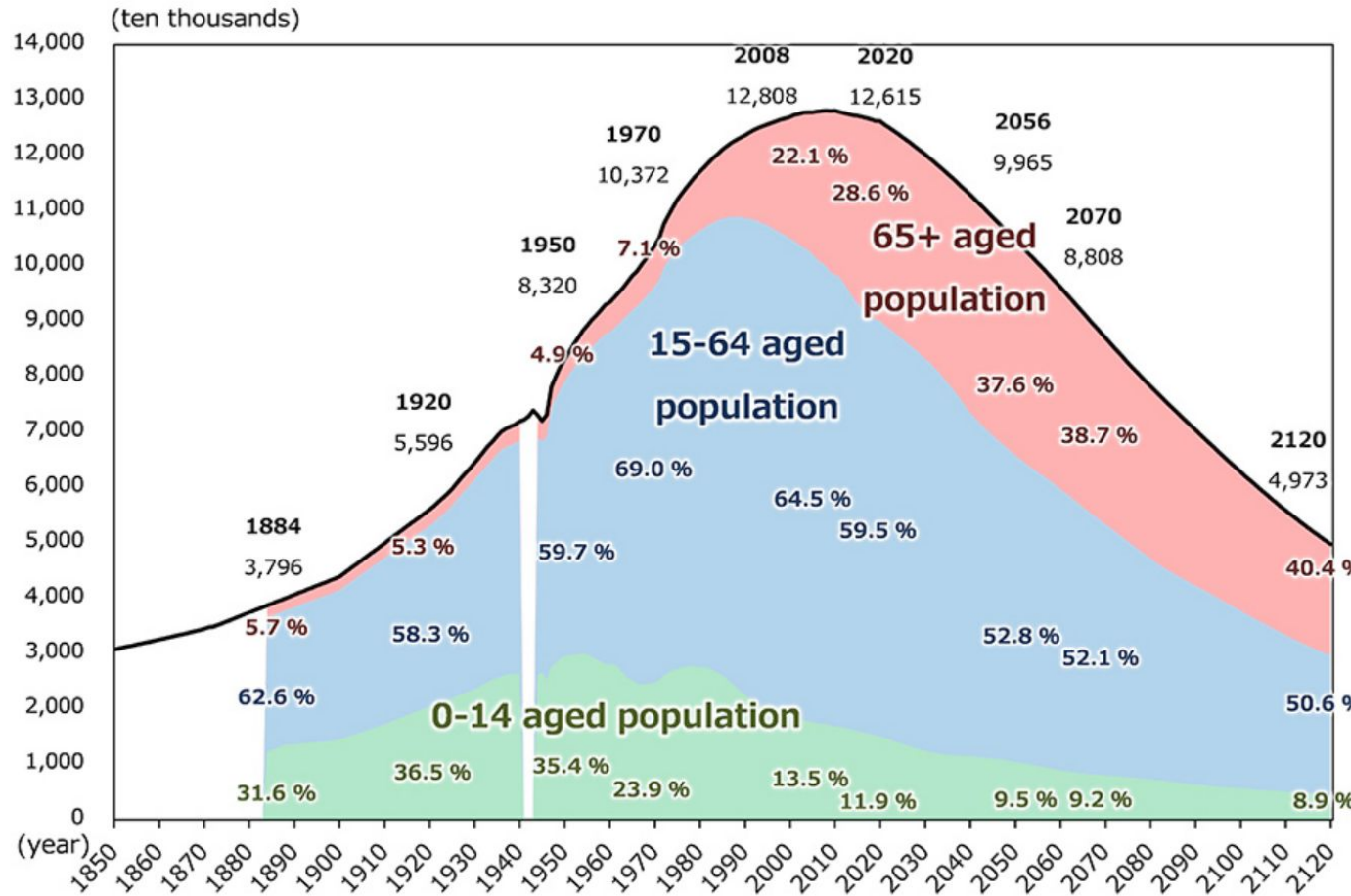
**Major Subduction-Zone Earthquakes**  
**Occurrence Region of the Subduction-Zone Earthquakes**  
**Earthquake plane of major active fault zone**  
**Other Active Faults**

**Shikanto-Oki EQ and Etorofuto-Oki EQ**  
 Approx. **M 7.7~8.5** Around **60%**  
 EQs without specified source faults  
 Interplate **Ma7: Nearly 100%** **Ma8: About 50%** **M<sup>o</sup> 8.6**  
 Intraplate **Ma7: About 90%** **Ma8: About 20%** **M<sup>o</sup> 8.4**  
**Earthquake name**  
**Earthquake occurrence probability within the next 30 years**  
 (Starting date : 2024/01/01)  
**Upper limit for the magnitude of earthquakes without specified source faults**  
**Magnitude**  
**Occurrence Probability of M  $\geq 7$  and M  $\geq 8$**



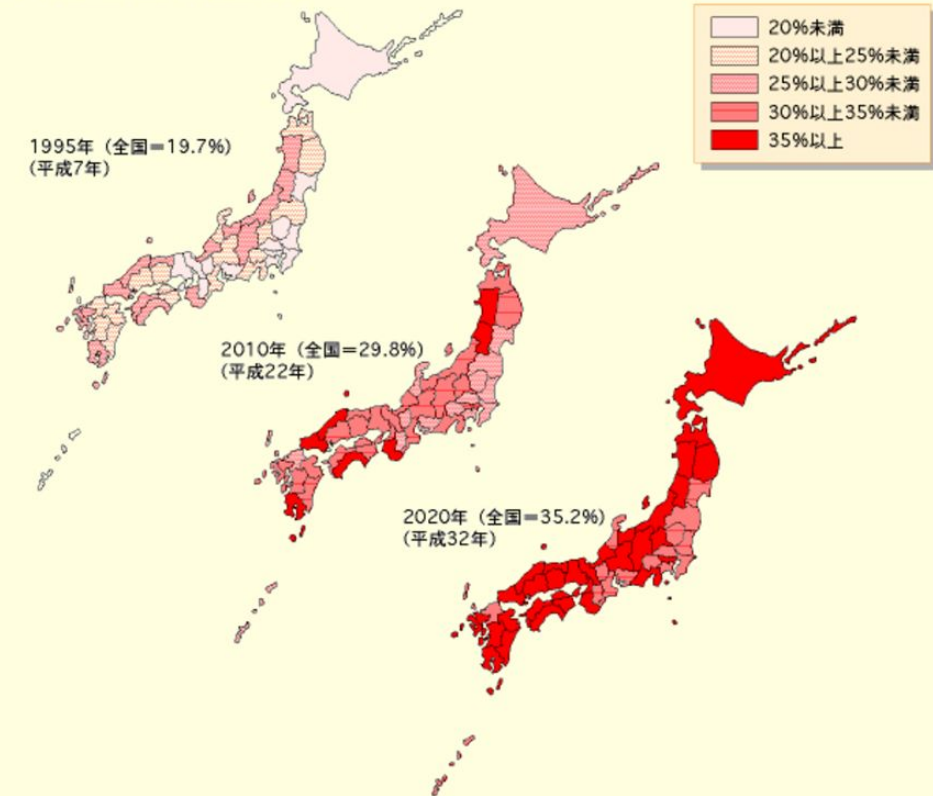
<https://www.i-shis.bosai.go.jp/en/jshis-poster>

# The population change in Japan



Source: Statistics Bureau, Ministry of Internal Affairs and Communications, Population Census of Japan. Unless otherwise stated in the notes, the table is concerned with the population of the whole national area (homeland) that the administrative authority has covered as of October 1 of each year. Therefore, the data for 1945-1970 do not include Okinawa Prefecture. : National Institute of Population and Social Security Research, Population Projections for Japan: 2021-2070 (2023). The projected population as of October 1 of each year. The estimated population as of January 1 of each year based on Cabinet Statistics Bureau, Meiji 5 Nen Ikou Wagakuni No Jinkou (1930)

図1-1-6 都道府県別高齢世帯割合の推移



資料：国立社会保障・人口問題研究所「都道府県別世帯数の将来推計（2000（平成12）年3月推計）」

[https://www.mhlw.go.jp/www1/wp/wp00\\_4/chapt-a1.html](https://www.mhlw.go.jp/www1/wp/wp00_4/chapt-a1.html)





# Population changes in Hiroshima

**Hiroshima Prefecture 2,750,540 persons in 2025**

**-20,083 persons (2024)**

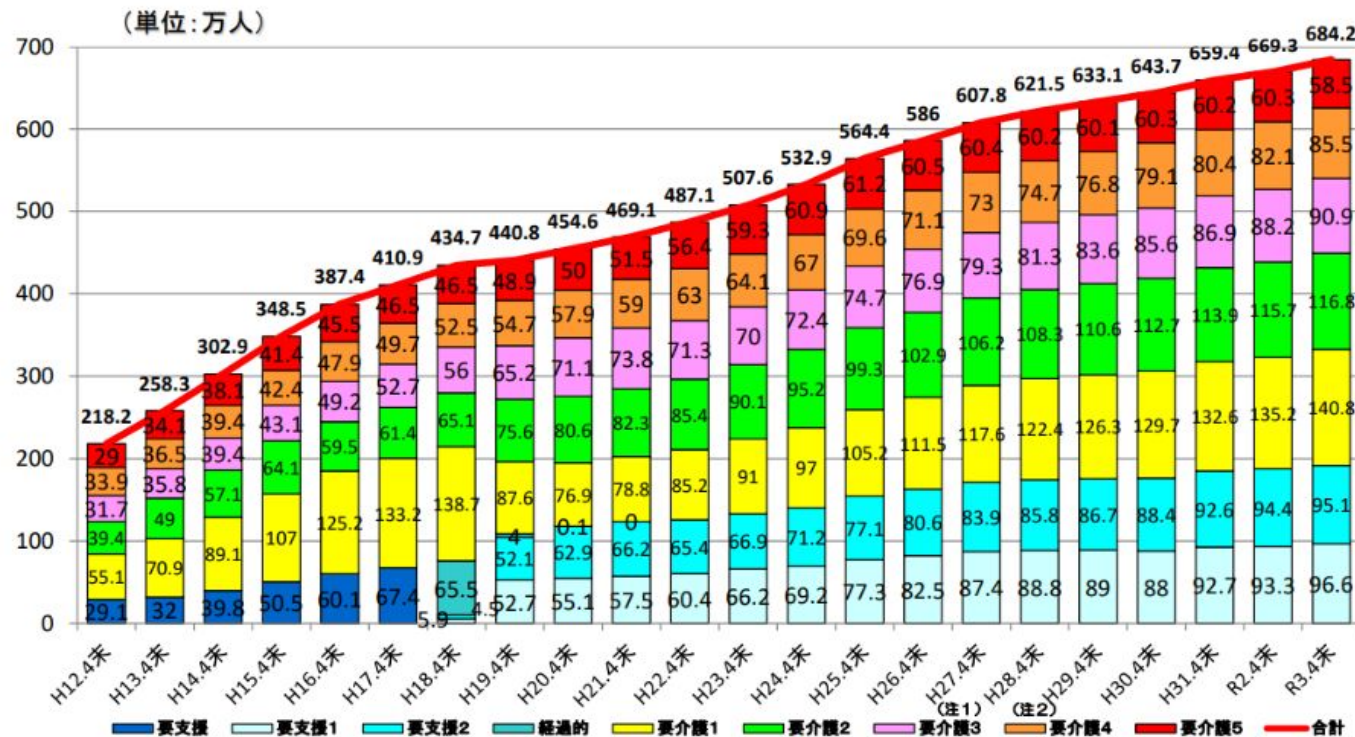
**Age>65 822,599 (-578 persons compare to 2024)**

**29.9% (+2.0%) (compare to 2024)**

**Age>75 467, 041 persons in 2025 (+15,946 person)**

**17.0% (+0.7%) (compare to 2024)**

# Increasing healthcare cost and workforce burden



- Care needs level for long-term care insurance assessment
- Level 5 requires most care support.

Cite: Ministry of Health, Labour and Welfare, 98th Social Security Council Long-Term Care Insurance Subcommittee, Reference Materials





**In this current and  
forthcoming situation,  
what could we do ?**



# Progress and Strengthening Measures



## 1. Disaster Preparedness and Response

- 1995 Hanshin Awaji earthquake – the lives that can be saved, avoidable deaths
- 2005 establishment with MoH – DMAT (Disaster Medical Assistance Team) training commenced
- Lessons from 2011 disaster: improved hospital disaster plans, stockpiles, and evacuation systems.
- 2013 DPAT (Disaster Psychiatric Assistance Team) training commenced
- Through the past disaster exposure different functions in healthcare services and organizations formed such as DWAT, PCAT etc... different role of teams can support transition between disaster phases, population and functions of society
- In 2022, 15,862 members trained and 2,040 DMAT teams are registered
- Policy and planning along with the 8<sup>th</sup> national medical planning (filling the gaps between non-disaster time and disaster time), Business Continuity Planning and Coping with large scale of disasters

# Progress and Strengthening Measures

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## 2. Workforce and Collaboration

- Training programs for disaster medicine/nursing/health and interprofessional teams.
- (Case)- disaster volunteer nurse register with nursing association (locally trained with nursing association and deployed to the affected area)
- Municipalities, volunteers, and non-government co-ordination

## 3. Policy and Governance

- National and prefectural-level resilience strategies (along with the national health policy such as Health Care Vision 2035, Health Japan 21, Organizational and regulation changes ).
- Investment in community-based integrated care systems.

## 4. Digitalization and Innovation

- Electronic medical records, telemedicine expansion (accelerated by COVID-19).
- Use of AI and big data for public health surveillance.





# Strengthening governance

## – establishing Disaster Prevention Agency in 2026(planned)

- Mobilisation and cooperation among industry, government, academia, and the public
- Serving as a command centre:
  - overseeing disaster prevention as a whole, brings together all the resources of industry, government, academia and the public, and devises and implements a medium- to long-term disaster prevention strategy.
  - with the ultimate goal of protecting the lives and livelihoods of the people.



Not all ministries are presented (image only)

# Core functions of the agency

1

Formulation of basic policies and national strategies related to disaster prevention

2

Promotion and acceleration of through disaster prevention measures in peacetime

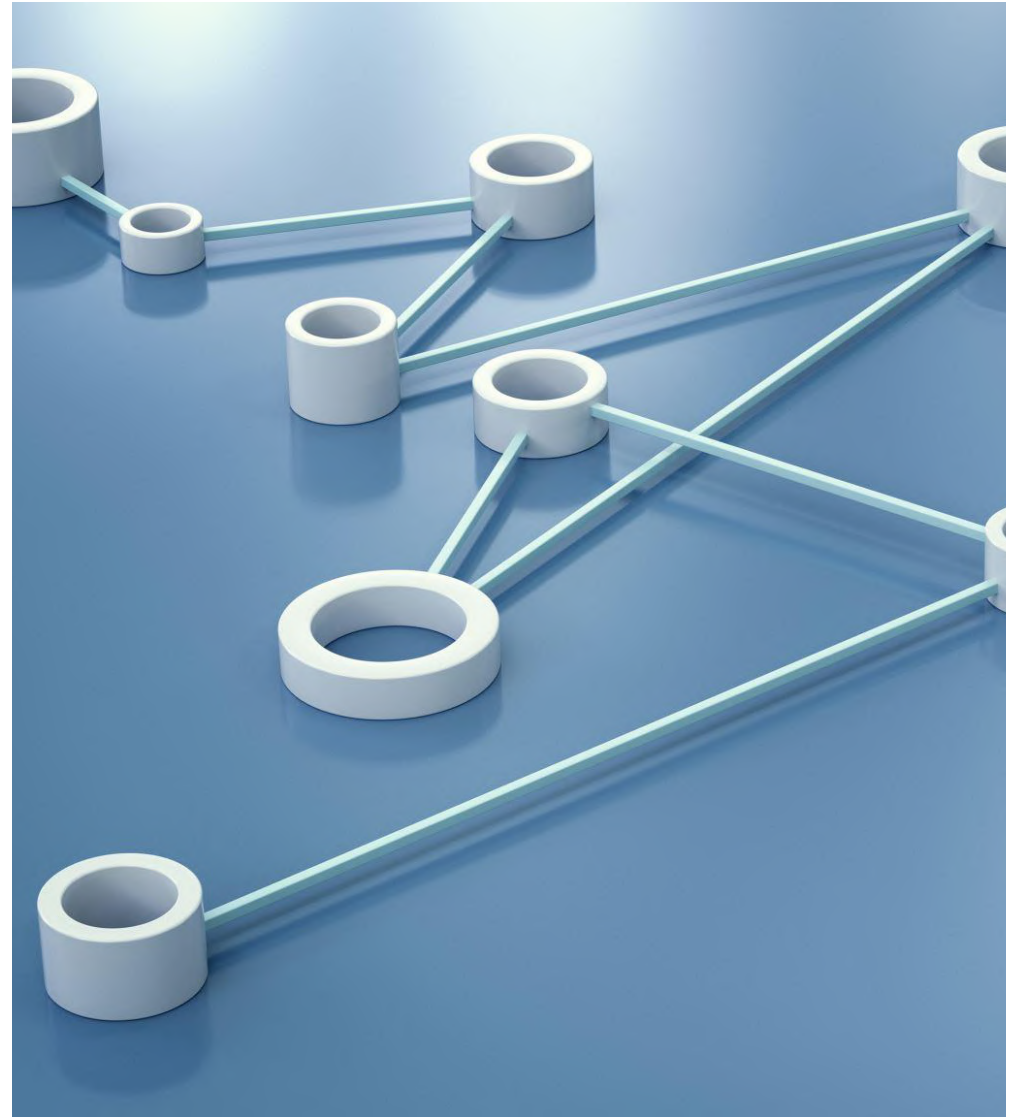
3

Command centre for disaster response from the time of disaster occurrence to recovery and reconstruction



# Remaining Gaps and Future Directions

- Coordination and communication is becoming more critical
- Continuous interprofessional and cross-sector collaboration
- Non-disaster time and disaster time communication – phase less application
- Strengthening rural healthcare access and technology equity
- Integration of climate change adaptation into healthcare resilience.
- Japan has made substantial progress and ongoing adaptation is essential.
- “Resilience is a process journey, not a destination.”



*Thank you for your attention*

# References

- 第6回防災庁設置準備アドバイザー会議・資料<sup>2</sup>(6th Meeting of the Advisory Panel on Preparations for the Establishment of the Disaster Prevention Agency - Document 2 Japanese only)
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- *Preparing Health Systems for Shocks : Japan's Experience of Enhancing the Resilience of its Health System (English)*. Washington, D.C. : World.
- <http://documents.worldbank.org/curated/en/099121324152034698>



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DMATとは (What is DMAT, Japanese only)

- <http://www.dmat.jp/dmat/dmat.html>

第8次医療計画策定に向けた災害医療について (Disaster Medical Care for the Formulation of the Eighth Medical Plan Japanese only)

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