Mental health care response to the Great East Japan Earthquake, Tsunami and Nuclear disaster

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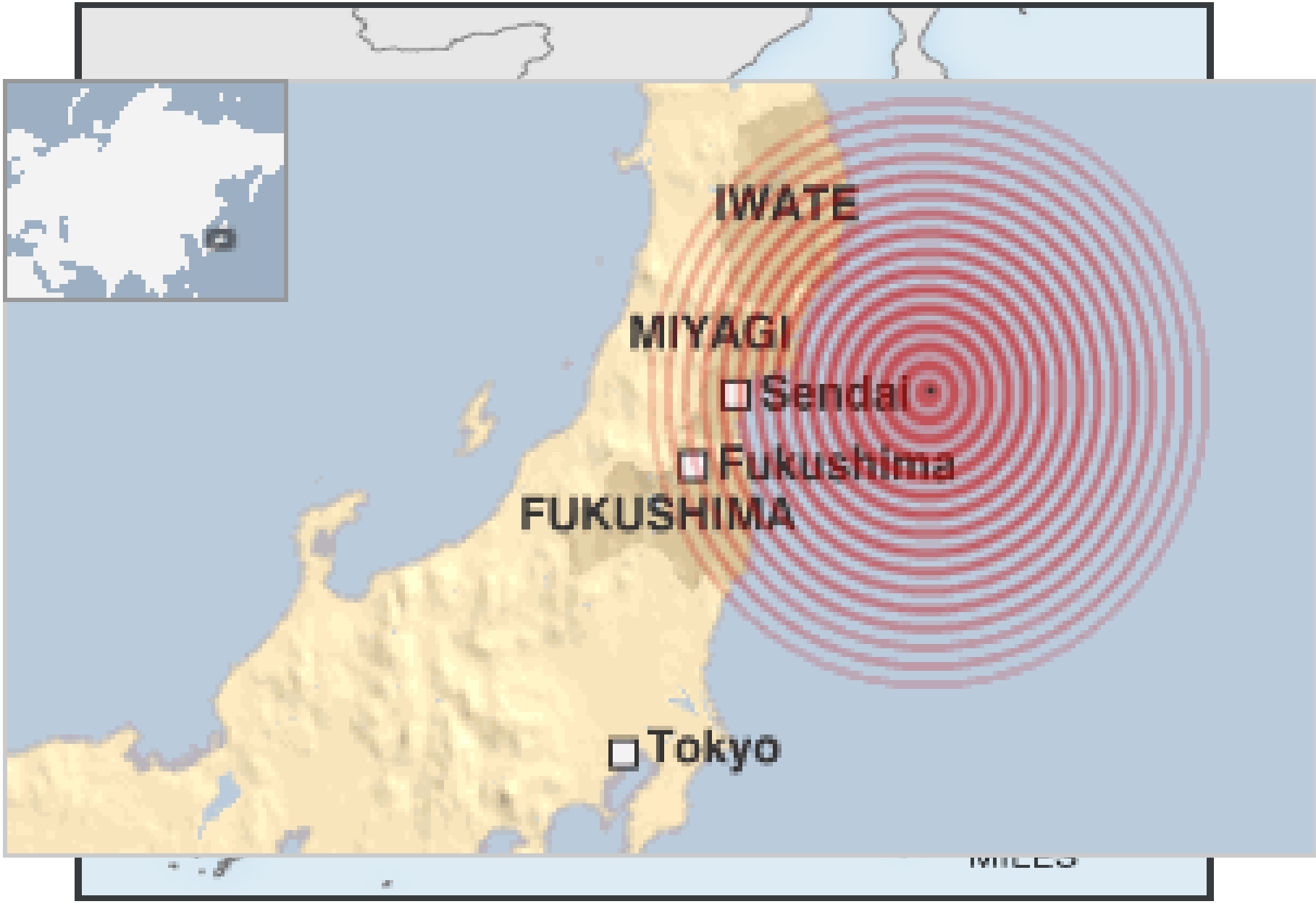
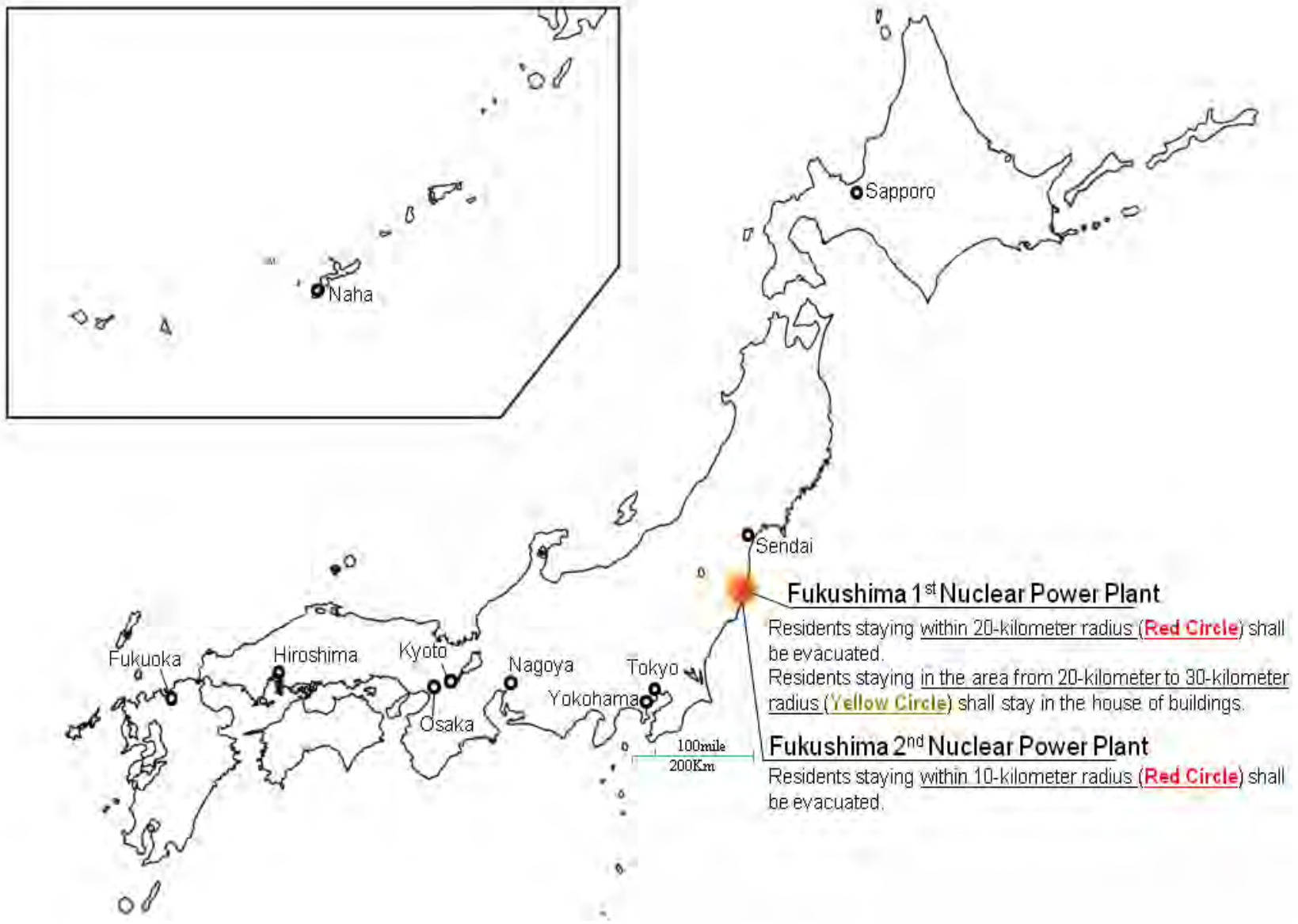
- 1 overview
- 2 Principles
- 3 Statistics
- 4 Atomic power plant accident

1. Overview of the disaster

East Japan Great Earthquake

- March 11, 2011
- magnitude of 9.0 (Mw) east off coast of Japan,
- With 8-10 meter-tall tsunami
- Death 15,628
- Missing 4,823


IWATE
MIYAGI
Sendai
Fukushima
FUKUSHIMA
Tokyo


Naha
Sapporo
Sendai
Fukuoka
Hiroshima
Kyoto
Osaka
Nagoya
Tokyo
Yokohama
100mile
200Km
Fukushima 1st Nuclear Power Plant
Residents staying within 20-kilometer radius (Red Circle) shall be evacuated.
Residents staying in the area from 20-kilometer to 30-kilometer radius (Yellow Circle) shall stay in the house of buildings.
Fukushima 2nd Nuclear Power Plant
Residents staying within 10-kilometer radius (Red Circle) shall be evacuated.

Recent massive disasters in Japan

- 1964: Niigata earthquake(death toll 26)
- 1968: Tokachi-oki eartuquake (52)
- 1982: Nagasaki great flood (262)
- 1991-1993: Usu, Fugendake eruption (41)
- 1993: Hokkaido Nanseioki earthquake(201)
- 1995: Hanshin-Awaji earthquake(6,402)
- 2004: Niigata Sanjo flood(16)
- 2004: Niigata Chuetsu earthquake(68)
- 2007: Noto-Hanto earthquake(1)
- 2007: Niigata Chuetsu-oki earthquake(15)
- 2008: Iwate, Miyagi Nairiku earthquake(12)

Hot spa inn damaged by landslide, Iwate, Miyagi Nairiku earthquake
Retrieved from Asahi Shinbun Hp
at http://www.asahi.com/special/08006/gallery/TKY200806140308.html

Our intervention and research of traumatic events

- Japanese embassy hostage crisis in Peru（1997.4）
- Intoxicated curry case in Wakayama（1998.7）
- Japanese hostage crisis in Kyrgyz(1999.11）
- Community survey on Nagasaki atomic bomb, in non-designated area（2001.2）
- Survey of Japanese community after the September 11th terrorism attack in New York（2001.9）
- Rapid response to the Ikeda elementary school incidence (2001.6)
- Technical support and community survey of the Chuetsu Earthquake in Niigata（2004.10)
- Technical support and survey on victims of Fukuchiyama line, Amagasaki JR Train Accident (2005.5)
- HIV

Hostages crawl to safety (CNN)

President Fujimori inspects the scene of the attack (CNN)

Historical cases

869 Jou-Gan Tsunami

maginitute > 8.3, tsunami>10m

1783 Asama volcano eruption

Death 1,200 → >100,000 in subsequent famine

1896 Sanriku-Oki Tsunami

Magnitude 8.5, tsunami>10-20m

1923 Kantou Great Earthquake

Magnitude 7.9

Death 142,807 (including victims of fire)

several thousands (ethnic atrocity)

1995 Great Hanshin Earthquake

Magnitude 7.3, Death 6,434

Head quarter role

- Administrative: Ministry of Health, Labor and Welfare (MHLW)
- Academic: Japanese Society of Psychiatry and Neurology
- Information: National Center of Neurology and Psychiatry

in collaboration with a number of academic and clinical

organizations:

Japanese Association of Psychiatric Hospitals

Japan Municipal Hospital Association

Japanese Association of Neuropsychiatric Clinics

Japan Association of Chairpersons of Departments of Psychiatry

Japanese Society of Traumatic Stress Studies

Japanese Association for Emergency Psychiatry

continue psychiatric service

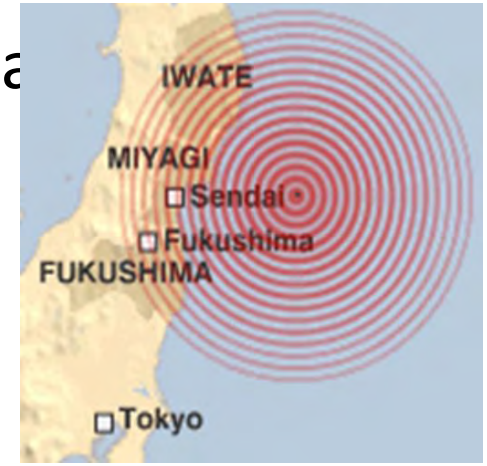
- Transportation of psychiatric inpatients
- Provide medication to psychiatric patients
- Onsite treatment of those who had mental disorders before the disaster
  - By the mental health care teams

Transportation of patients

- Loss of the function of psychiatric hospita
  - Miyagi prefecture

    3 hospitals
  - Fukushima prefecture

    2 hospitals (5 for fear of radioactivity)



- More than 1,000 inpatients lost beds.
- On 2nd day: surveillance of the capacity of psychiatric beds in nearby non-afflicted prefectures
- Within 10 days; transportation was almost completed to other hospitals within the same prefecture or in distant areas.

Supply of psychiatric drugs

- The supply of psychiatric drugs risked running short
  - The expressways were collapsed
  - railroads were destroyed
- Most serious: antidepressant drugs & anticonvulsants
  - the restriction of the days of the prescription in further areas, such as Tokyo.
  - up to 180 days to around 30 days.

Mental health care teams

- Composed of psychiatrists, nurses, and/or psychologists, psychosocial workers, and clerks, to set up on-site camps.

- Registered through the MHLW to the local governments

Mental health care teams framework

- 1st week
  - some medical organizations spontaneously sent mental health teams, based upon their own information
- After 1st week
  - the mental health teams dispatched via MHLW started their activity on the affected areas
- After 2nd week
  - 30 teams (+ Red Cross) wee engaged in activity in costal areas
- Continuous responsibility
  - At last nearly 60 teams were dispatched to assume a responsibility of a certain costal area, made routine to send teams successively, to provide continuous on-site mental care.

Research ethics

- Abuse by researches
  - The boundaries between support and research can be vague.
  - Data collection without ethical preparation.
  - Neglect of government guidelines
    - The Japanese National Ethical Guideline for epidemiological researches
  - JSPN issued a statement to promote the ethical awareness of researches, which was also a crucialconcern

Information Provision

- On the 3rd day after the quake, the NCNP launched a website for adequate information provision.
  - More than 20 documents; the Japanese Guidelines on Post-disaster Mental Health Care, its manual, road map, and leaflets, etc.

Coherence of mental health professionals

- Confusion possibly cause by a great diversity of mental support organizations
- Guidelines
- Ongoing meeting at the headquarter of the JSPN
- Participation of the opinion makers of psychiatry

ご挨拶
れる方へ
研究関係の方へ
研究等申請書
標・中期計画
のお願い
等の相談・案内
治験や臨床研究に協力してくださる方へ
・レジデント募集

センター内施設

病 院 | 神経研究所 | 精神保健研究所
TMC トランスレーショナル・メディカルセンター | 自殺予防総合対策センター

この度の東日本大震災により、亡くなられた方々に謹んでお悔やみ申し上げますとともに被災された方々に心
お見舞い申し上げます。

▸ 東北地方太平洋沖地震メンタルヘルス情報サイトを開設しました。

独立行政法人国立精神・神経医療研究センターについて

当センターは平成22年4月1日より独立行政法人として新たなスタートを切りました。精神・神経・筋・発達障害の4分野に取
組むナショナルセンターとして当施設ならではの高度・専門的な医療サービスを提供し、世界的なレベルの研究を推進して
の皆様の健康をお守りし増進してまいります。

病院をお探しの方はこちら

師募集

あるご質問(Q&A)

報取り扱いについて

医療関係者向け

- 急性期のこころのケアについて(2011.3.16更新)(PDF)
- 災害救援者メンタルヘルス・マニュアル(2011.3.31更新)(PDF・HTML)
- 死亡告知・遺体確認における遺族への心理的ケアダイジェスト(2011.3.30更新)(PDF・HTML)
- 心のケアチームマニュアル(2011.4.25更新)(PDF)
- 災害時地域精神保健医療活動のガイドライン(2011.3.16更新)(PDF)
- 災害精神保健医療マニュアル:東北関東大震災対応版(2011.3.16更新)(PDF)
- マニュアル解説スライド(医療関係者用)(2011.3.16更新)(PDF)
- 原子力災害の心のケア(原子力安全協会より提供)(2011.3.17更新)(PDF)
- 災害時地域精神保健医療活動ロードマップ(2011.3.16更新)(PDF)
- 災害被災者の不眠症への対応(2011.4.6更新)(PDF・HTML)
- 被災者の飲酒問題への対応(2011.4.5更新)(PDF・HTML)
- 死亡告知・遺体確認における遺族への心理的ケア(2011.3.30更新)(PDF・HTML)
- 災害・紛争等緊急時における精神保健・心理社会的支援に関するIASCガイドライン(2011.4.25更新)(PDF)
- 災害・紛争等人道的緊急時における精神保健・心理社会的支援(保健医療版)(PDF) NEW
- 被災認知症支援マニュアル(2011.5.12更新)(医療用・介護用)

- 災害　子どもの悲嘆ガイドブック(教育者、保護者向け)(2011.6.10更新)(PDF) NEW
- 災害　子どもの心のケア(一般支援者向け)(2011.3.18更新 3.29名称変更)(PDF)
- 災害　被災した子どもを支援する方々へ(医療者、教育者向け)(2011.3.29更新)(PDF)
- 災害　子どものトラウマ支援5原則(2011.3.18更新)(PDF)
- 災害　子どもの保護者向けリーフレット(2011.3.18更新)(PDF)
- 災害　障害児への対応の手引き(2011.3.18更新)(PDF)
- 災害　発達障害をもつ保護者の方へ(2011.3.18更新)(PDF)

記入シート等

Information provision (cont'd)

- To share common understanding among the professionals
  - the nature of disaster-related stress reactions
  - the rationale of intervention.
- Past bitter experience
  - At Great Hanshin Earthquake a flood of various types of information arrived from abroad or other areas of Japan, to cause mess than help
  - Psychological debriefing

Policy for acute mental health care

- humanitarian support vs. psychiatric primary and secondary prevention of mental disorders
- The efficacy of on-site temporary trauma focused intervention
  - Psychological debriefing
  - Art therapy
- Criticism
  - after the 9/11 , the American Psychological Association issued a statement of warning
  - Prof. Everly acknowledged that their studies were inadequate.
  - NICE guidelines: “watchful waiting”

Vol 378 July 23,

2011. Kim Y, Akiyama T: Post-disaster mental health care in Japan. The Lancet 378 : 317-318.

One main obstacle to being open to these questions is the pressure on epidemiologists, managers, and academics to collect data in a vertical fashion. Yet violence cannot be seen as detached from infectious disease, maternal mortality, drug addiction, or unemployment. The Family Health Strategy, cited in most of the Series papers, has been a vehicle by which many vertical actions have already been integrated, and the results have been well studied.[3] What readers really need to know are the obstacles to going further in this regard.

The outcome of *The Lancet*'s Series is a collection of excellent health data empty of relevant messages for taking decisions around health-policy organisation. There is a need to understand health in Brazil in terms of the best answers to health service problems.

We declare that we have no conflicts of interest.

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1 Victora CG, Barreto ML, do Carmo Leal M, et al. Health conditions and health-policy innovations in Brazil: the way forward. *Lancet* 2011; **377**: 2042–53.
2 Conselho Federal de Medicina. CFM divulga dados sobre a concentração de médicos no Brasil. Brasília (DF): CFM, 2010. http://portal.cfm.org.br/index.php?option=com_content&view=article&id=9777&catid=3:portal (accessed May 26, 2011).
3 Macinko J, Dourado I, Aquino R, et al. Major expansion of primary care in Brazil linked to decline in unnecessary hospitalization. *Health Affairs* 2010; **29**: 2149–60.

Post-disaster mental health care in Japan

International guidelines and principles for the promotion of psychosocial wellbeing and the prevention or treatment of mental health problems in humanitarian settings are often ignored, and Justin McCurry's World Report on Japan (March 26, p 1061)[1] is an example.

Japan has considerable experience and expertise in the field of mental health and psychosocial support. The Ministry of Health, Labor and Welfare quickly mobilised human resources and guidance including from the Japanese Society of Psychiatry and Neurology and the League of Psychiatric Departments of Universities. Japanese response and support systems (including mental health care) for this disaster will be reported soon elsewhere.

We are keen to learn from international experiences and appreciate the support from international actors. However, as the Inter-Agency Standing Committee guidelines[2] note, responses must be coordinated, evidence-based, culturally informed, and build on existing capacities.

We declare that we have no conflicts of interest.

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1 McCurry J. Japan: the aftermath. *Lancet* 2011; **377**: 1061–62.
2 Inter-Agency Standing Committee. IASC guidelines on mental health and psychosocial support in emergency settings. Geneva: IASC.

triggered by the disaster" does not accurately reflect the situation. Although existing provision is not perfect, valuable lessons about post-disaster mental health have been learned since the two previous major disasters at Kobe in 1995 and Niigata in 2006. In 2001, the National Center of Neurology and Psychiatry issued national guidelines for post-disaster mental health,[3] and several thousand caregivers have been trained in traumatic stress counselling over the past few years. The directors of most mental health centres have attended lecture courses in post-disaster mental health care. As a result, responses to the present disaster were very rapid, allowing prompt scheduling and dispatch of mental health-care teams to the devastated areas.

Second, we were concerned about the inclusion of comments from Stephen McDonald of Save the Children on the fear expressed by a child he had interviewed, and the assertion that lack of counselling in the early phase can lead to subsequent mental and behavioural problems. There is no evidence for this statement. As recommended in

guidelines produced by the UK's ...onal Institute for Health and Clinical ...llence[3] human suffering should

the roof of their four-store building, where they watched the town become submerged under water. After having

...iatry and Neurology, Kodaira, ...187-8553, Japan

...cCurry J. Japan: the aftermath. *Lancet* 2011; ...377: 1061–62.
...im Y, Abe Y, Araki H, et al. Guidelines for local ...ental health care activities after a disaster. ...okyo: National Center of Psychiatry and ...eurology, 2001. http://www.ncnp.go.jp/nimh/...eijin/pg33.html (accessed June 22, 2011).
...ational Institute for Clinical Excellence. Post-...raumatic stress disorder: the management of ...TSD in adults and children in primary and ...econdary care. London: NICE, 2005. http://...uidance.nice.org.uk/CG26/Guidance/pdf/...English (accessed June 22, 2011).
...oberts NP, Kitchiner NJ, Kenardy J, Bisson JI. ...arly psychological interventions to treat ...cute traumatic stress symptoms. ...*ochrane Database Syst Rev* 2010; **3**: CD007944.
...oa EF, Keane T, Friedman M. Effective ...reatments for PTSD, 2nd edn. New York: ...uilford Press, 2008.

...e, health, and ...mmunity in a ...nami-affected town

...iro Ueta, a general practitioner in ...chi Town, Iwate prefecture, Japan, ... examining his patients when a ...sive earthquake hit eastern Japan ...March 11. He and his staff escaped ...ediately after the earthquake to

at the shelter on March 28, 84 (38%) were aged 65 years or older. Such an age structure was the reason behind the high need for routine medications. Many had chronic diseases—eg, hypertension, diabetes, and heart disease. The major challenges for the providers were to identify the medicines that patients had been taking. Pills and patient-held records were commonly lost with the tsunami. Pharmacists had a crucial role in the identification and selection of alternatives from the 100 or so types of available medicine.

A possible infectious disease outbreak was also a concern. Tap water and sewage systems were destroyed, and evacuees were advised to wrap their stools in newspaper and place them in a plastic bag. But when patients with acute gastroenteritis suggestive of norovirus infection were found, we facilitated improvement of hygiene measures, introduced chlorine-based disinfectants, and promoted accurate knowledge of virus transmission.

Despite very challenging conditions, people have worked tirelessly. What was extremely impressive was that evacuees at the shelter organised a functional community. Representatives met every night to discuss the shelter's rules. People shared the ... serving meals and cleaning ... spaces and toilets, and took ...hysical exercise together. ...l support and interventions ... made in collaboration with ...l efforts in planning public ...terventions and fostering a ... in communities.

...at we have no conflicts of interest.

...namoto, Masaya Kato, ...hirabe
...agasaki-u.ac.jp

...ropical Medicine, 1-12-4 Sakamoto, ...-8523, Japan (TY); and Nagasaki ...edical Relief Team (MK) and Center for ...ommunity Medicine (SS), Nagasaki ...agasaki, Japan

...y of Internal Affairs and ...unications. Declining birth rate and ...opulation. http://www.stat.go.jp/...data/handbook/c02cont.htm#cha2_2 ...ed June 7, 2011).

Support for senior management at Great Ormond Street Hospital

The anonymous letter[1] you published online on July 1 does not, we believe, reflect the majority view of the senior staff at Great Ormond Street Hospital, London, UK. We have seen no evidence of bullying of staff who have raised concerns about clinical risk with management. It is regrettable that patient safety issues are being used as a political weapon, and that this will cause anxiety for our patients and their families.

We all support the Chief Executive and senior management of Great Ormond Street Hospital.

For the full list of signatories, see webappendix.

Jon Goldin, on behalf of 107 consultants and 52 other senior staff members
goldij@gosh.nhs.uk

Great Ormond Street Hospital for Children NHS Trust, London WC1N 3JH, UK

1 Anon. GOSH consultants express alarm. *Lancet* 2011; **378**: 123.

2. Principles

- 1 National guideline for post disaster community mental health care
- 2 Trainings of more than 4,000 mental health professionals (doctors, psychologists, nurses, administrative staffs) during past decade
- 3 Research teams on post disaster mental health
- 4 On site advice and trainings at relatively minor disasters

Guideline for the disaster community mental health

Yoshiharu Kim et al.

2002

National Center for Neurology and Psychiatry, Japan

3. Natural recovery from the trauma

The rate of the PTSD occurred in the group, which share the shock and the victim is several % of the resident, one year later: from the examples of a disaster up to this point is;

1) PTSD in a wide meaning is occurred in about 20% of the resident.

2) As for about 80%, a natural recovery is seen.

3) It surmises that, natural recovery is hardly seen after half a year to one year from the disaster.

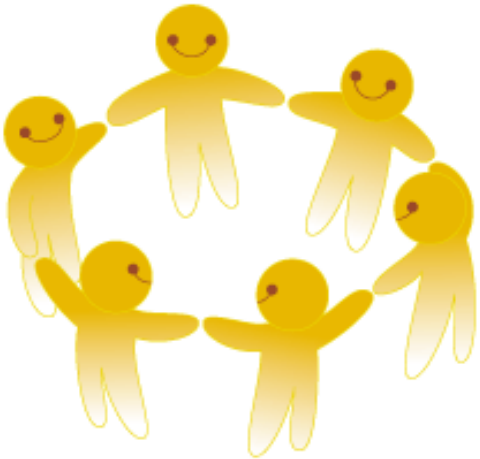
As measures of the community mental health

1) Prepare the condition of promoting a natural recovery

2) Decrease the factor to prevent a natural recovery

Anxiety

Common normal



Promote social coherence and sound coping

Severe case

Active support and treatment

6) Information

The information service to the resident is consistently important from the right after disaster.

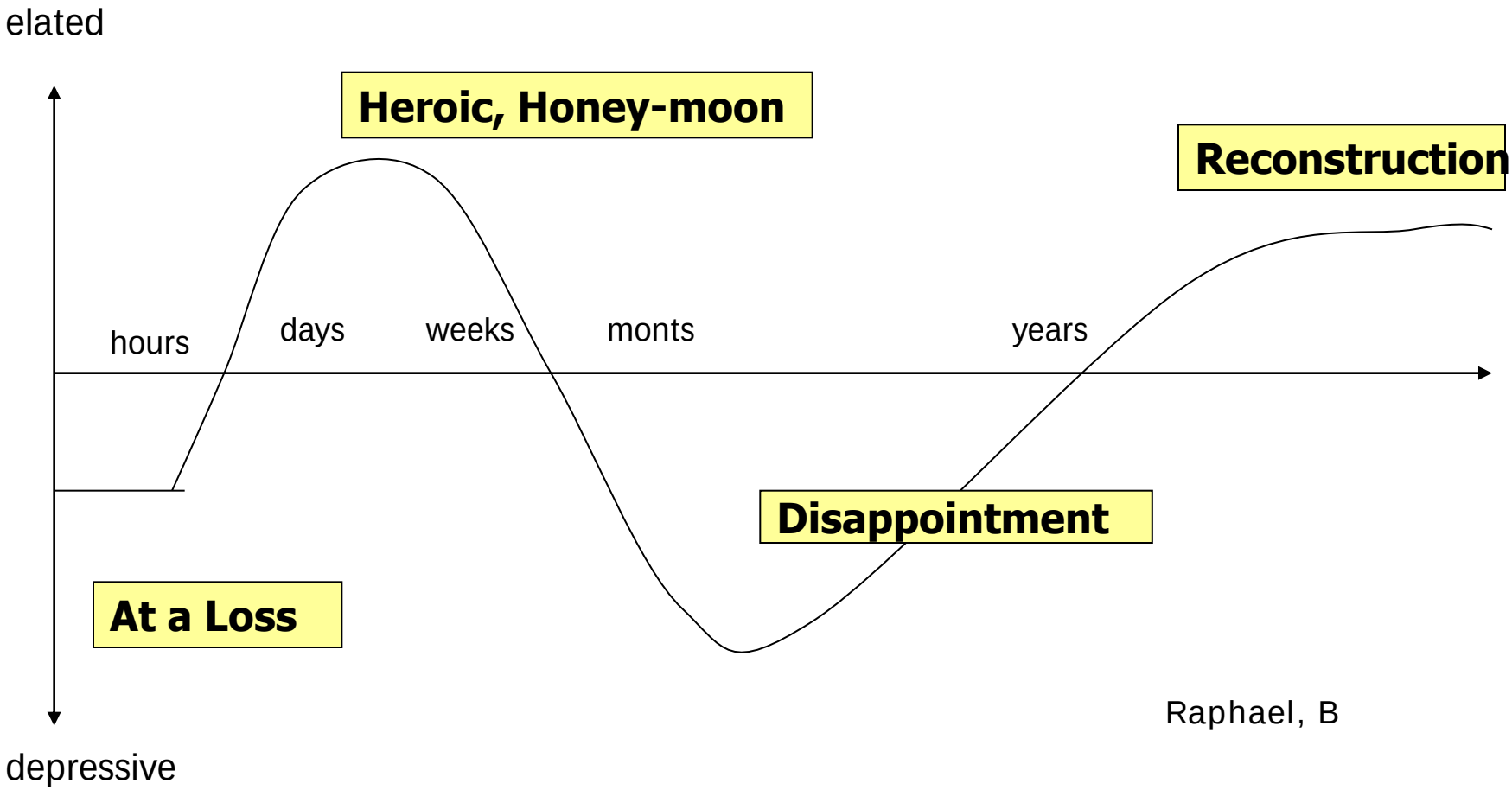
(1) Give actual information

It given soothes the anxiety and the loneliness feeling of the resident that quickly and appropriately produce information about the scale of the disaster, safety of the family, future prospect, support and medical treatment, so that prevent unnecessary confuse and panic.

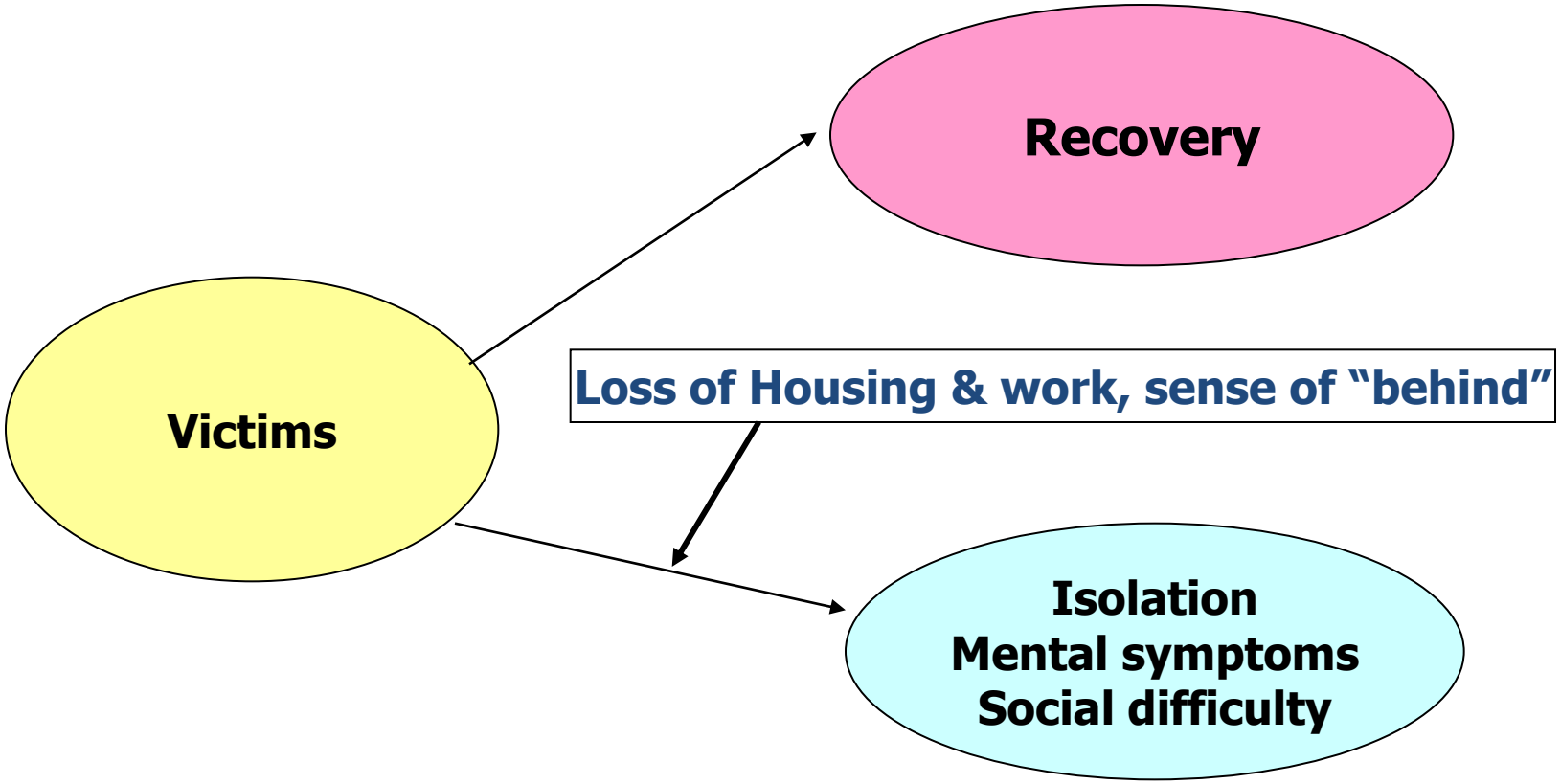
(2) Give psychological information

The possible information service from the viewpoint of community mental health is about general psychological change, corresponding method and mental support system following the disaster.

Psychological response after disaster

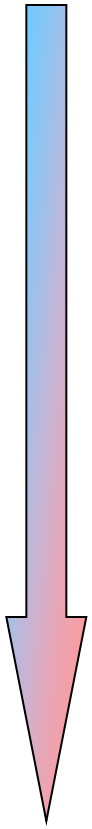


“Scissors-like” split recovery



Nakai, H

Multidemensional care



- Rescue and Safety
- Evacuation from a catastrophe
- Societal support
- Reconstructing living arrangement
- Medication (as necessary)
- Psychoeducation, counseling
- Specialized treatment

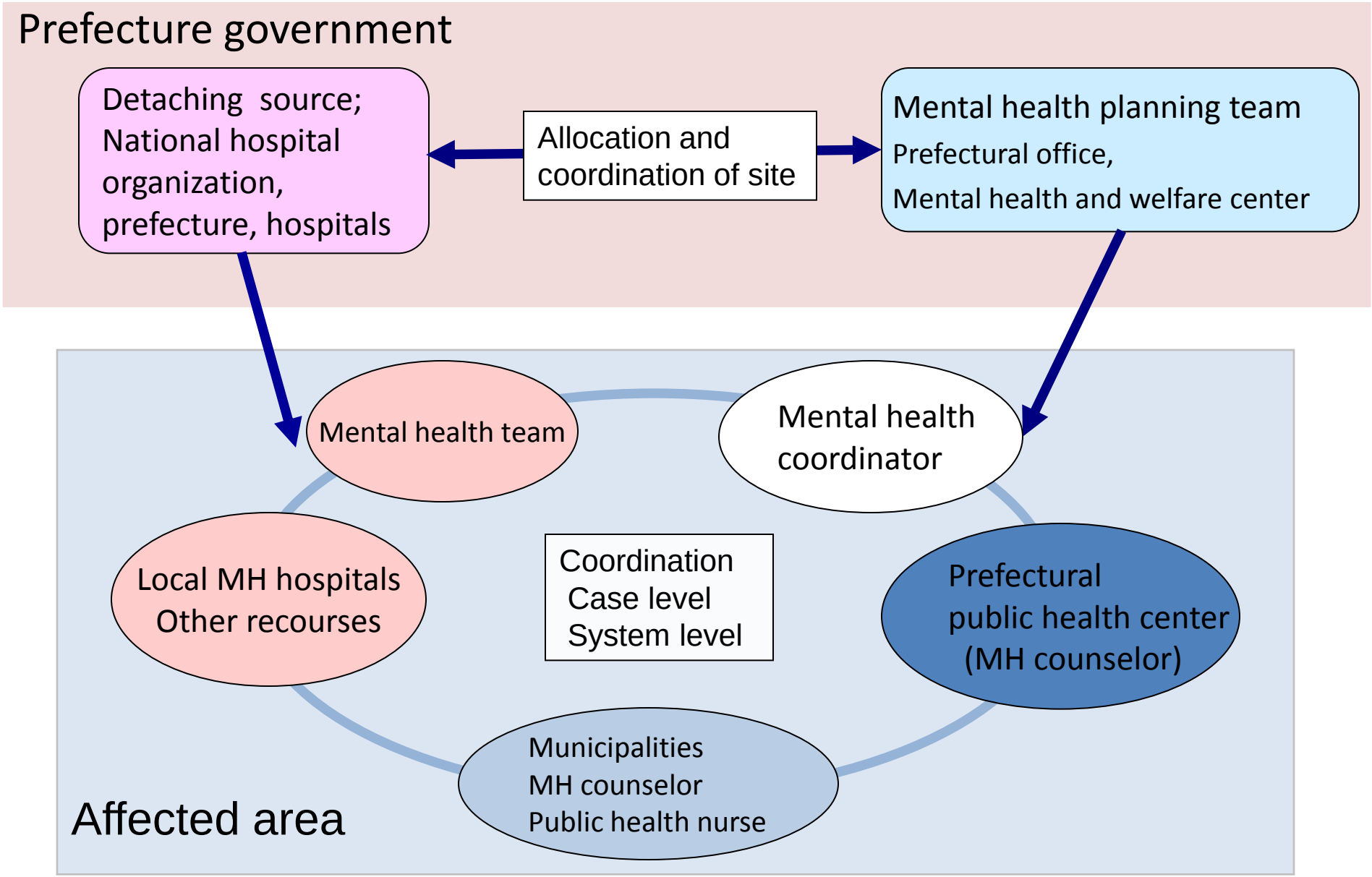
Safety

Security

Sleep

Adapted from http://www.ncnp-k.go.jp/katudou/h12_bu/guideline.pdf (in Japanese)

Management of mental health team



เงินสนับสนุนการวิจัยด้านสาธารณสุข ปี 2001 (การวิจัยพิเศษด้านสาธารณสุข)

「คู่มือสำหรับการดำเนินกิจกรรมการบำบัดรักษาสุขภาพจิตในพื้นที่ประสบภัยเมื่อเกิดภัยพิบัติ」

PEDOMAN

AKTIVITAS PERAWATAN KESEHATAN MENTAL

TINGKAT LOKAL PASCA BENCANA

Critical Path after Natural Disaster (rural version)

Post-disaster Phase **Place**	**Phase 0** **(Before arrival of the rescue)** **Few hours/days** **On sight**	**Phase 1** **(Rescue and emergency medical services)** **Few days** **Shelter, temporary morgue**	**Phase 2** **(Health and Medical care)** **Few weeks** **Shelter, home, medical institute**
Target	Panic Confusion	• Deterioration of existing disorders • ASD • Grief • ASD for staff/first responders	• Lack of medication • Anxiety disorders, PTSD, • Alcohol abuse • Burnout
Goal	Self-help and mutual aid	Identifying those with high risk. Collaborated intervention	Identifying those with high risk. Collaborated intervention

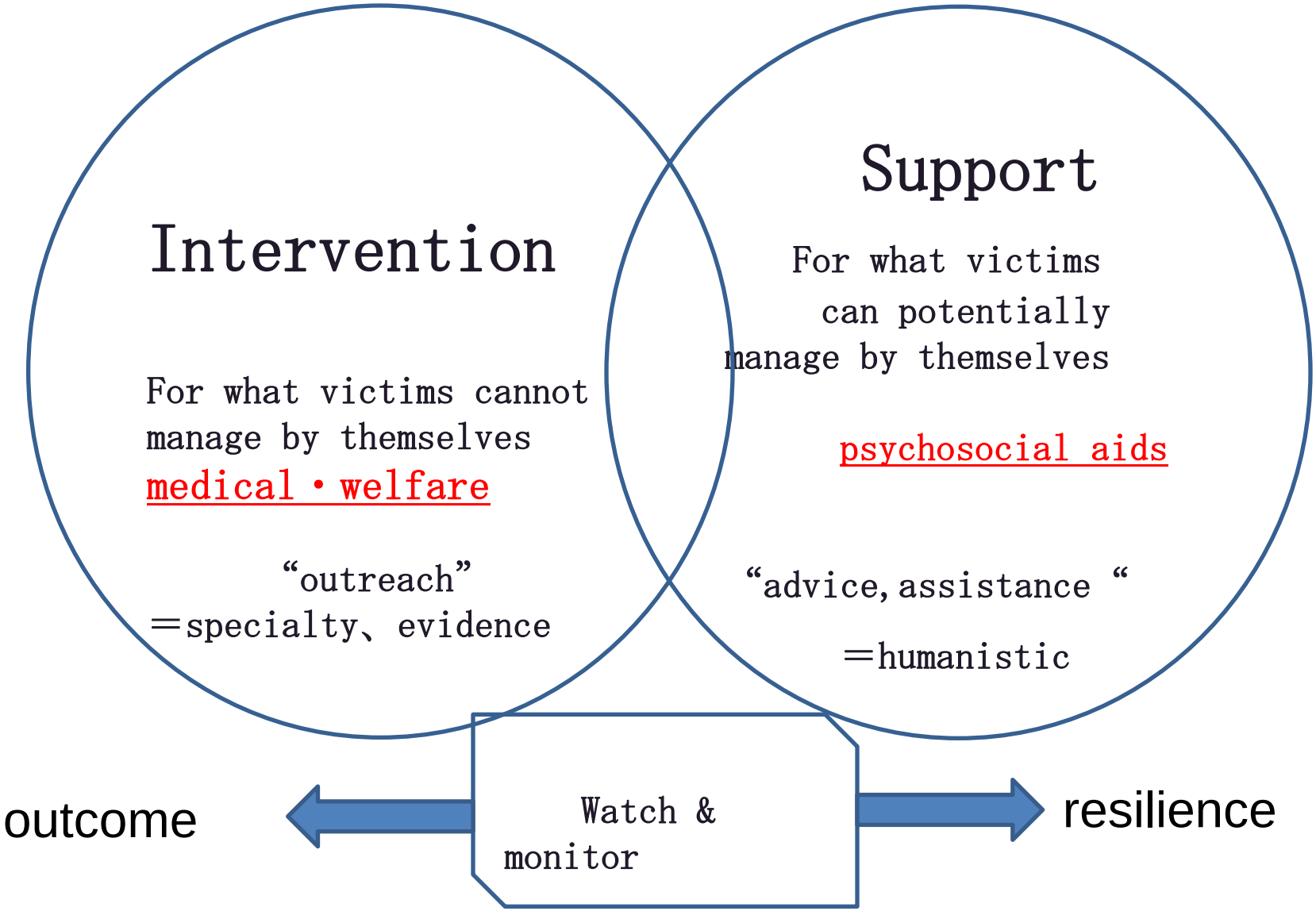
Critical Path after Natural Disaster

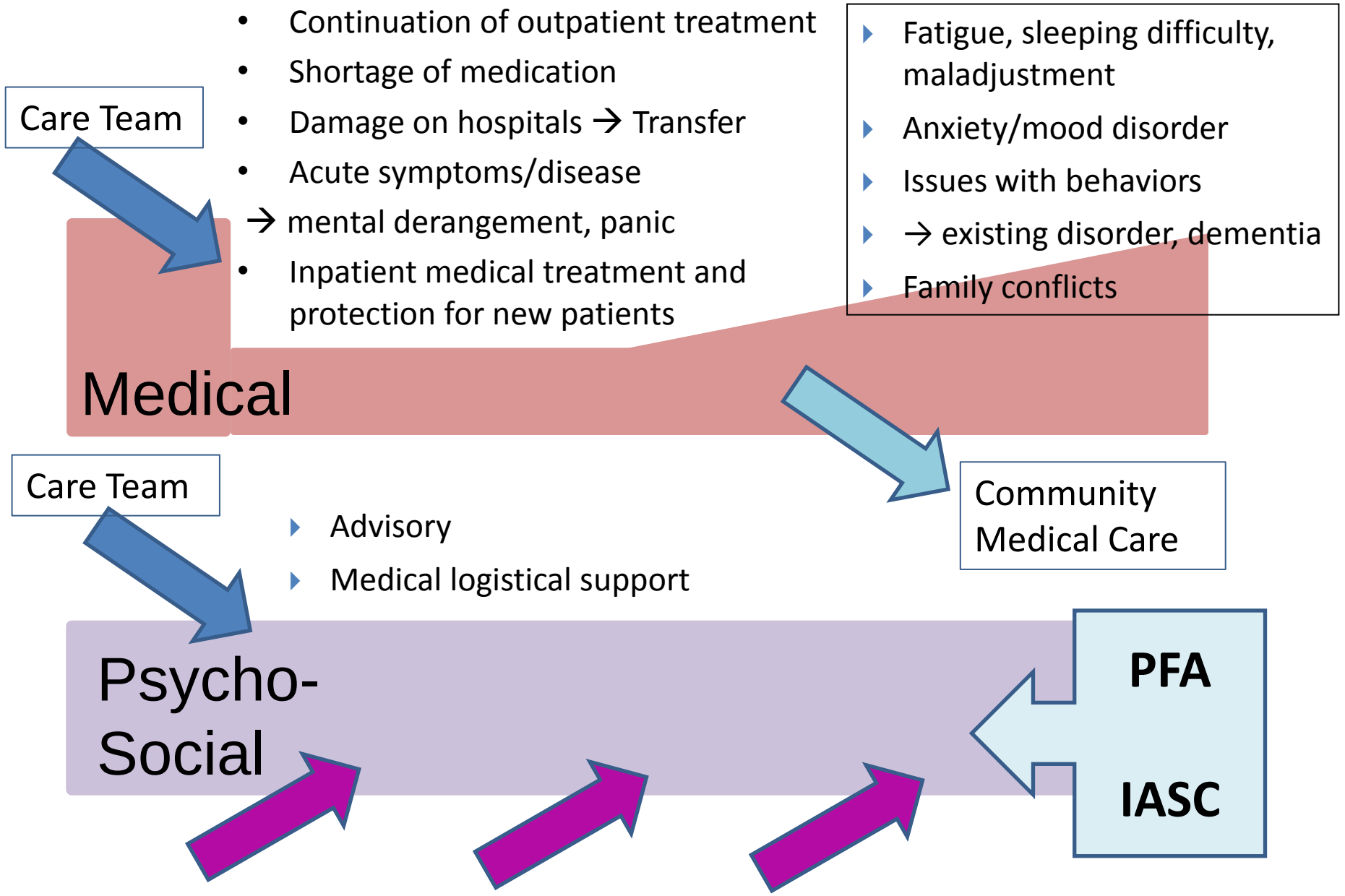
	Phase 0	Phase 1	Phase 2
Mental Health & Social Welfare Center	• Information gathering. • Decision making on policy and strategy. • Arrangement of mental health care team and HR	→	→
Community Health Center	• Collect info about the situation and the resource of affected area • Request & arrangement of internal/external support • Identifying high risk people	→	• Care meetings, Training, Collaborated planning. • Mental health checks for staff • Arrangement with health control
Local office (city, town, village-level)	• Collect info about the situation and the resource of affected site • Request & arrangement of internal/external support • Identifying high risk people	→	→

Critical Path after Natural Disaster

	Phase 0	Phase 1	Phase2
Medical Institute /agency	• Collect information of each organization and contact • Decision making on policy and strategy regarding mental health	→	• Psychiatric care • Attending inter-agency meetings • Psychological support for relief workers
Medical Team / Mental Health Team	Preparing for dispatch	• PFA (First Aid) • Provide info • Emergency Psychiatric care	• MH consultation • Provide medical services & resources • Attend Care meetings & training
Health Care Team	Preparing for dispatch	• PFA (First Aid) • Provide info	• MH consultation • Provide health education • Attend Care meetings & training

Mental health care





- Union of agricultural cooperatives & fishing cooperatives, a chamber of commerce, medical association, health center, schools, religious institutions, NPOs, volunteers

3 Statistics

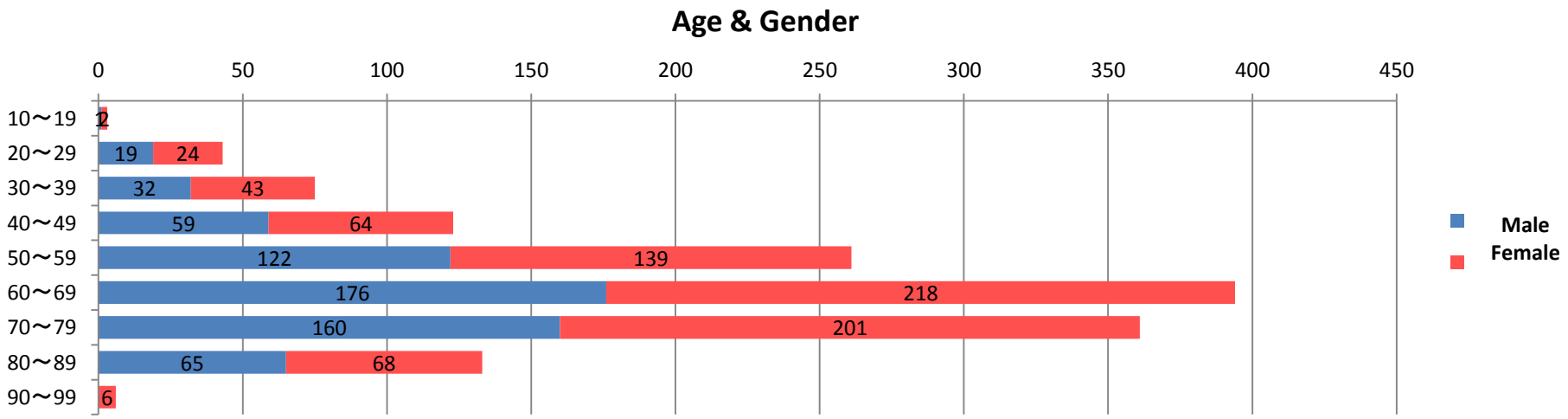
with prof Tsuji
Public Health
Tohoku University

Disadvantage of the affected area for mental health care

- 1 Isolated costal area
  - 3-6hours drive from the local government office of the prefectures
- 2 Poor community-based psychiatric service
  - Should rely upon long-stay mental hospitals
  - To convert the resourced to out-reach services
- 3 Stigma against mental disorders
- 4 High prevalence of suicide
  - Historical, cultural, economical reasons

Profile of the samples

1399 out of 3009, Ishino-Maki city, Miyagi



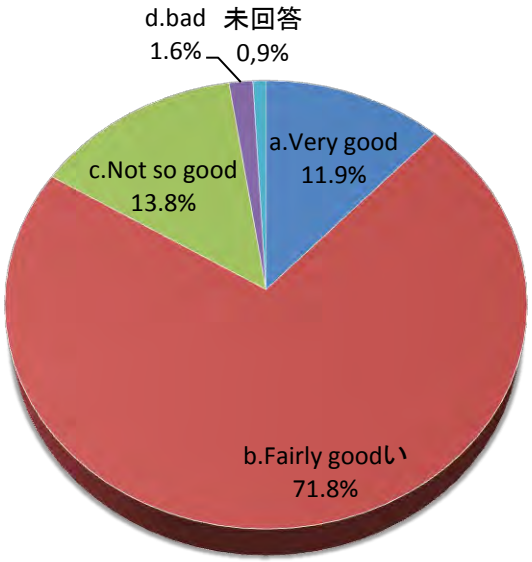
	性別		
年齢	男性	女性	計
10～19	0.1%	0.1%	0.2%
20～29	1.4%	1.7%	3.1%
30～39	2.3%	3.1%	5.4%
40～49	4.2%	4.6%	8.8%
50～59	8.7%	9.9%	18.7%
60～69	12.6%	15.6%	28.2%
70～79	11.4%	14.4%	25.8%
80～89	4.6%	4.9%	9.5%
90～99	0.0%	0.4%	0.4%
計	45.3%	54.7%	100.0%

平成23年度厚生労働科学特別研究「東日本大震災被災者の健康状態に関する調査研究」より抜粋

【1】Medical Problems

（1）General Health Status。

N=1399



（4）New disease after the disaster

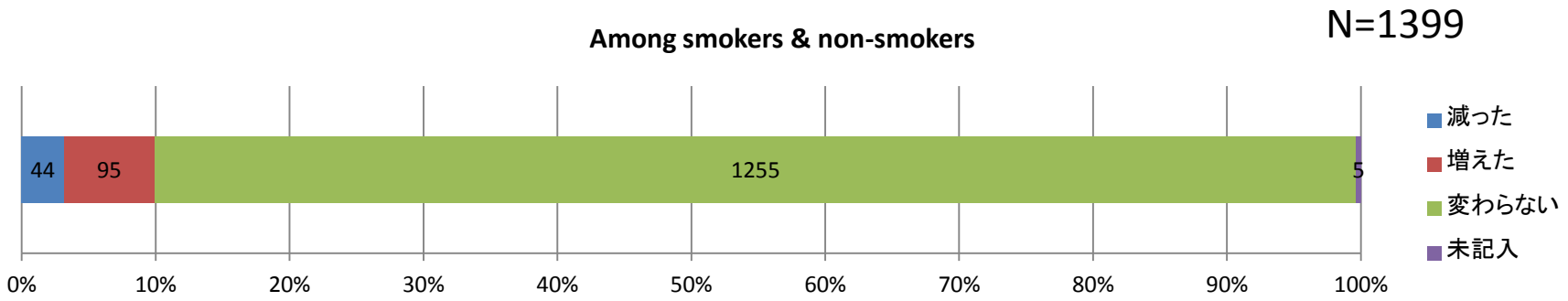
選択肢	回答数	比率
a.インフルエンザ	20	1.4%
b.肺炎	8	0.6%
c.感染性胃腸炎	30	2.1%
d.その他	429	30.7%

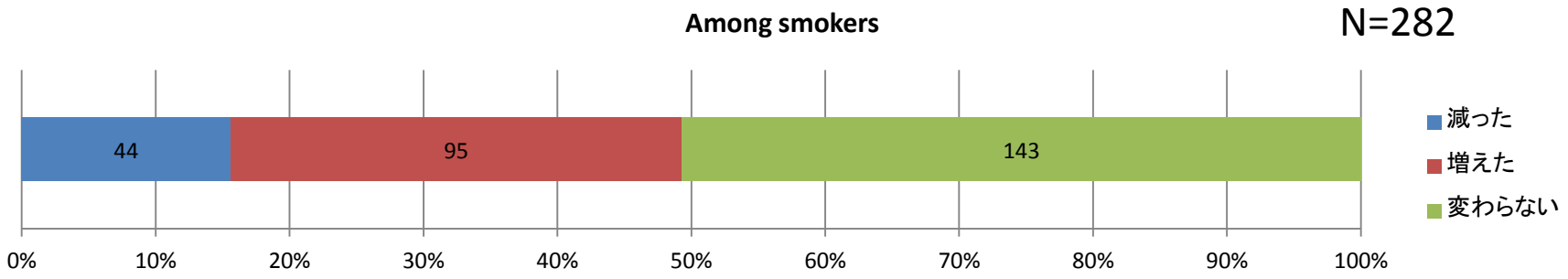
d.その他　記述より主なもの（複数回答有り）	回答数	比率
Grip	212	15.2%
Insomnia	84	6.0%
Hypertention	32	2.3%
GI symptoms	37	2.6%
き・たん	18	1.3%
関節痛　（ひざ痛、関節炎　など）	12	0.9%
歯科関連	11	0.8%
こころの不調　（精神不安定　など）	10	0.7%
目　（かゆみ、痛み、視力低下　など）	12	0.9%
頭痛	8	0.6%
気管支炎	5	0.4%
花粉症	5	0.4%
皮ふ疾患	4	0.3%
けが、骨折	2	0.1%
腰痛	5	0.4%

平成23年度厚生労働科学特別研究「東日本大震災被災者の健康状態に関する調査研究」より抜粋

【3】Smoking and Drinking

（1）Do you smoke? Increased?

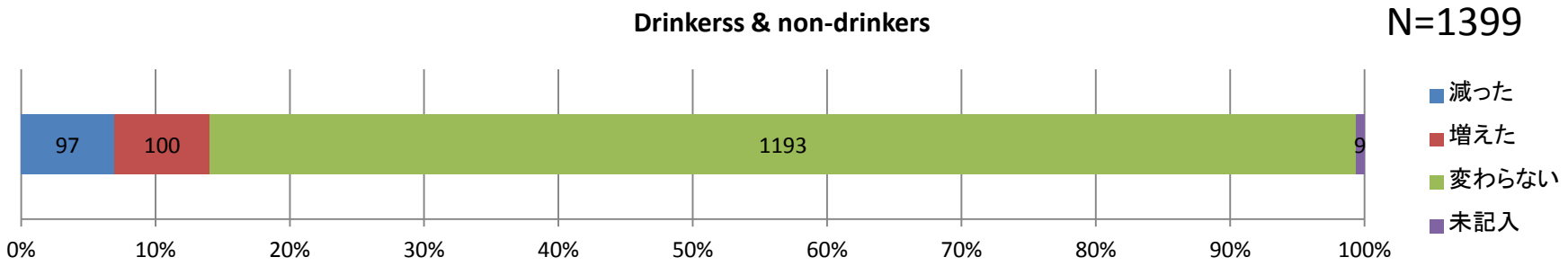


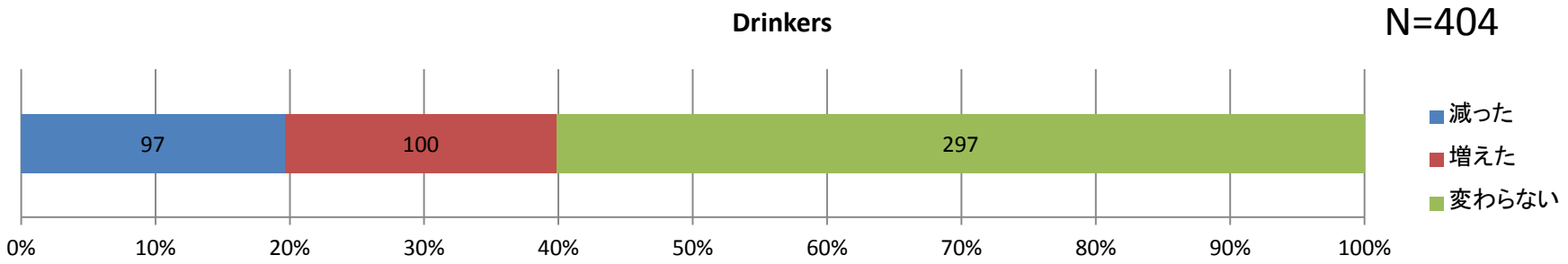


平成23年度厚生労働科学特別研究「東日本大震災被災者の健康状態に関する調査研究」より抜粋

【3】Smoking and Drinking 2

（2）Do you drink alcohol? Increased?

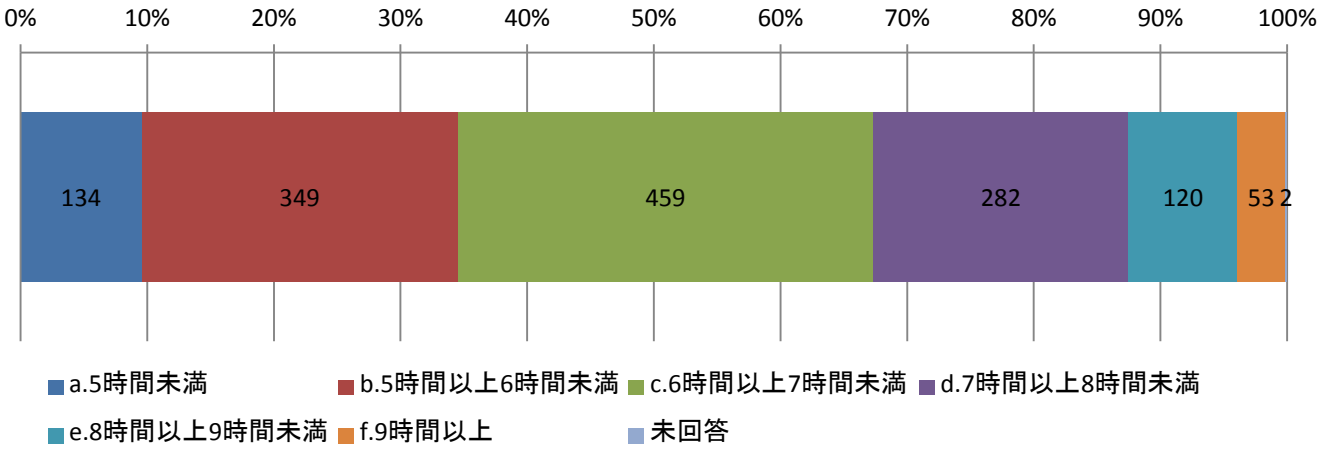




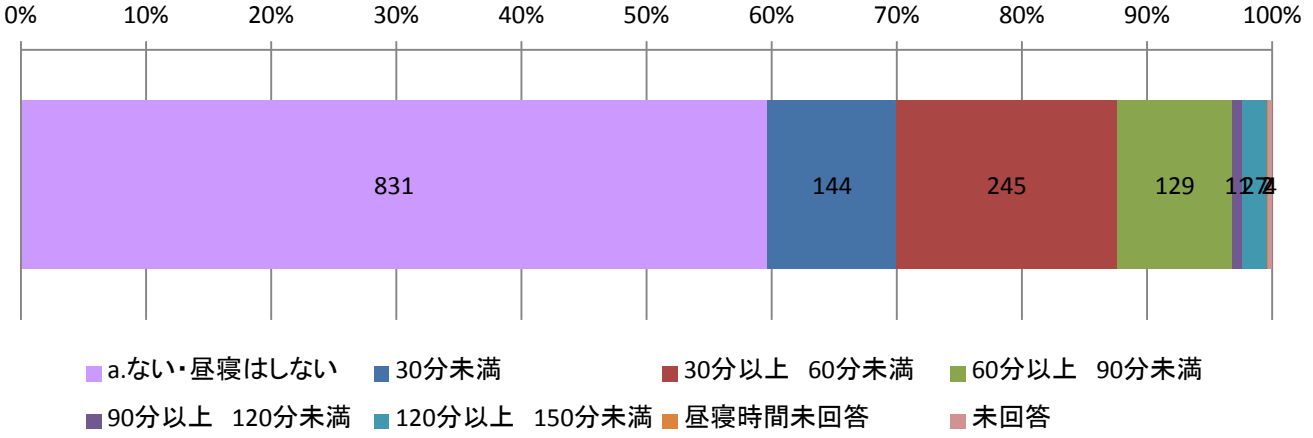
平成23年度厚生労働科学特別研究「東日本大震災被災者の健康状態に関する調査研究」より抜粋

【5】Sleep

（1）Sleep hours（including napping）。



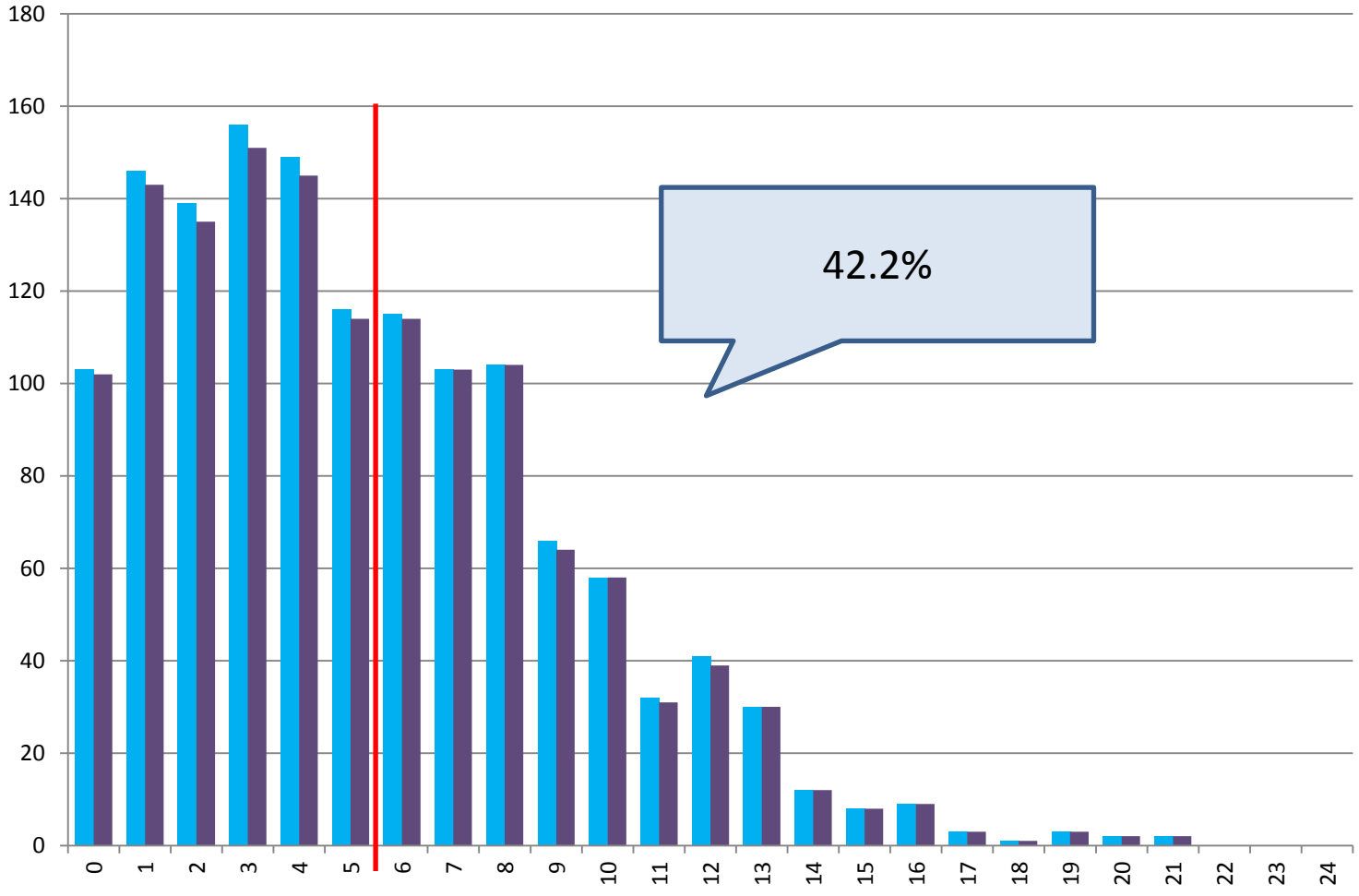
（2）Napping hours



平成23年度厚生労働科学特別研究「東日本大震災被災者の健康状態に関する調査研究」より抜粋

【5】Sleep

Athena Sleep scale



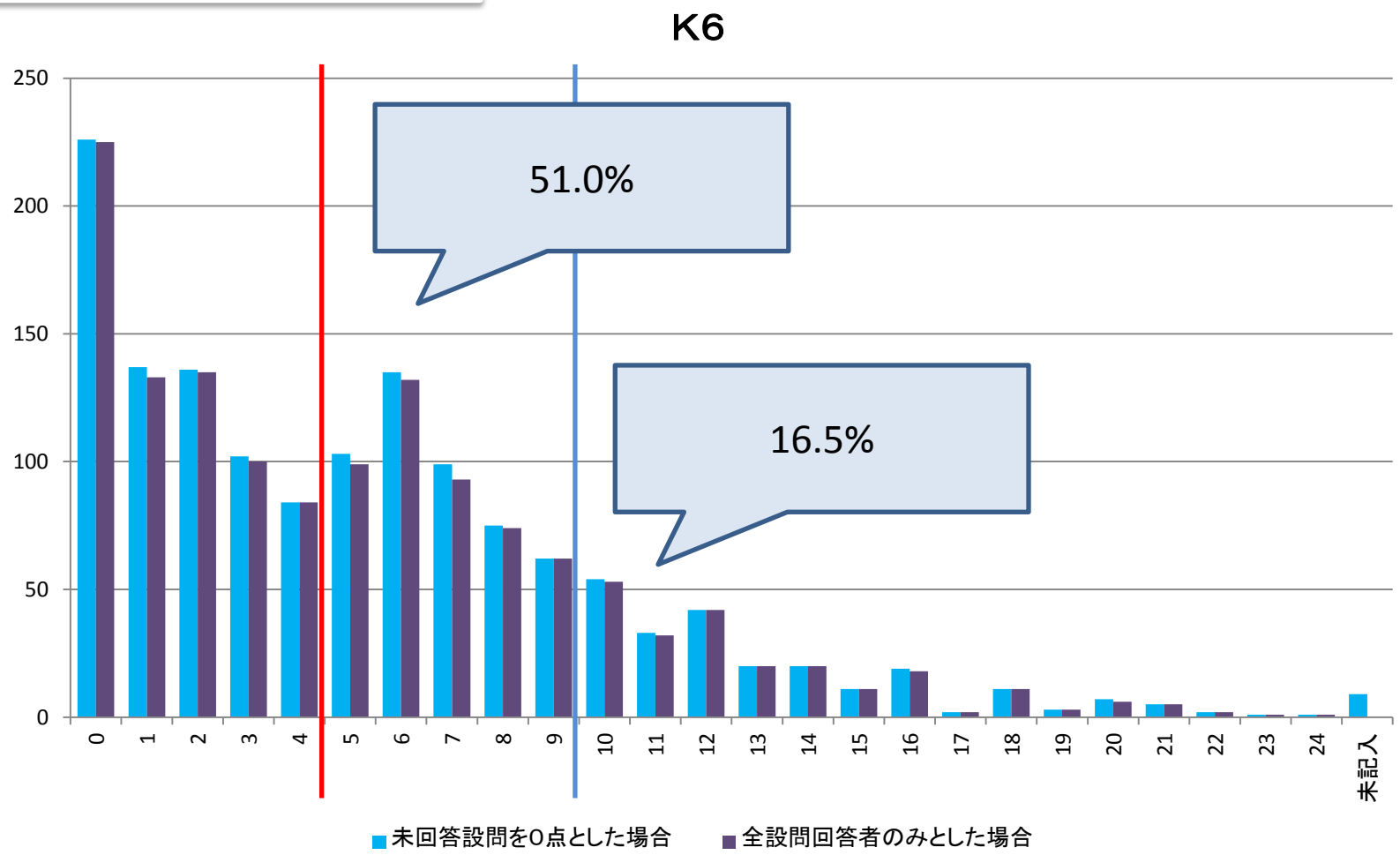
判断基準			未回答設問を0点とした場合		全設問回答者のみとした場合	
緑	3点以下	睡眠障害の疑いなし	544	38.9%	531	38.7%
黄	4～5点	睡眠障害を少し疑う	265	18.9%	259	18.9%
赤	6点以上	睡眠障害を疑う	590	42.2%	583	42.5%

平成23年度厚生労働科学特別研究「東日本大震災被災者の健康状態に関する調査研究」より抜粋

During the past 30 days, about how often did you feel?

- **a.** …nervous? **1 2 3 4 5**
- **b.** …hopeless? **1 2 3 4 5**
- **c.** …restless or fidgety? **1 2 3 4 5**
- **d.** …so depressed that nothing could cheer
- you up? **1 2 3 4 5**
- **e.** …that everything was an effort? **1 2 3 4 5**
- **f.** …worthless? **1 2 3 4 5**

【9】こころの元気さについて



判断基準		未回答設問を0点とした場合		全設問回答者のみとした場合	
緑	4>	685	49.0%	677	49.6%
黄	5～9	474	33.9%	460	33.7%
軽赤	10～12	129	9.2%	127	9.3%
重赤	>13	102	7.3%	100	7.3%

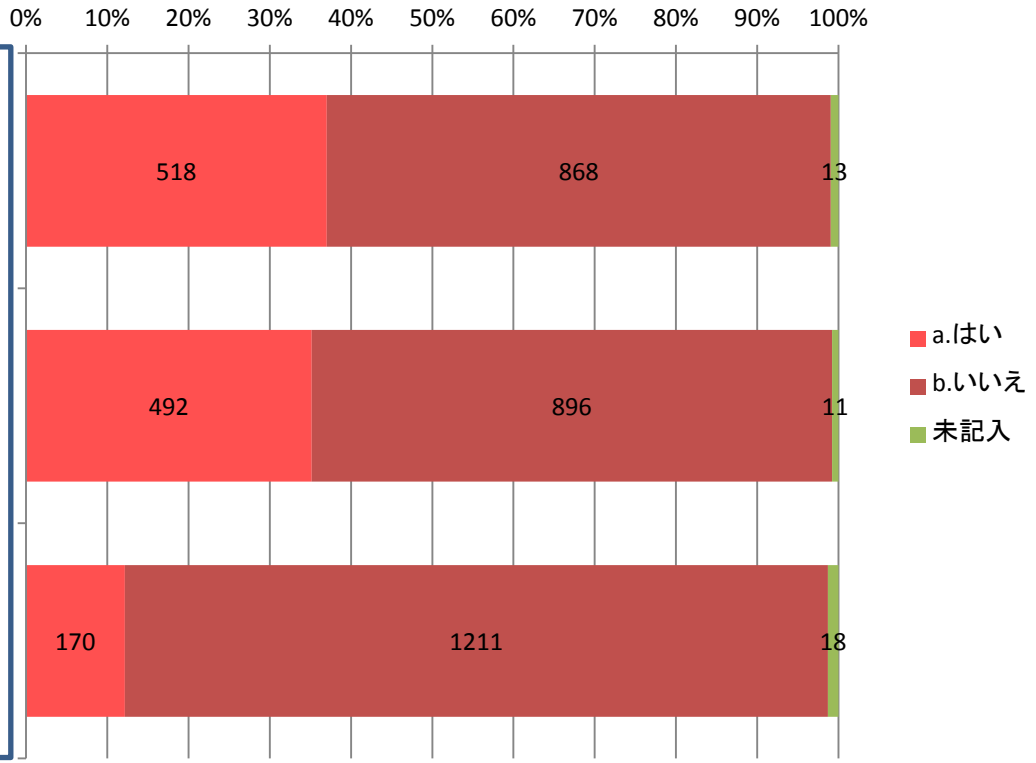
平成23年度厚生労働科学特別研究「東日本大震災被災者の健康状態に関する調査研究」より抜粋

【10】Traumatic Memory

1.Intrusive recollection

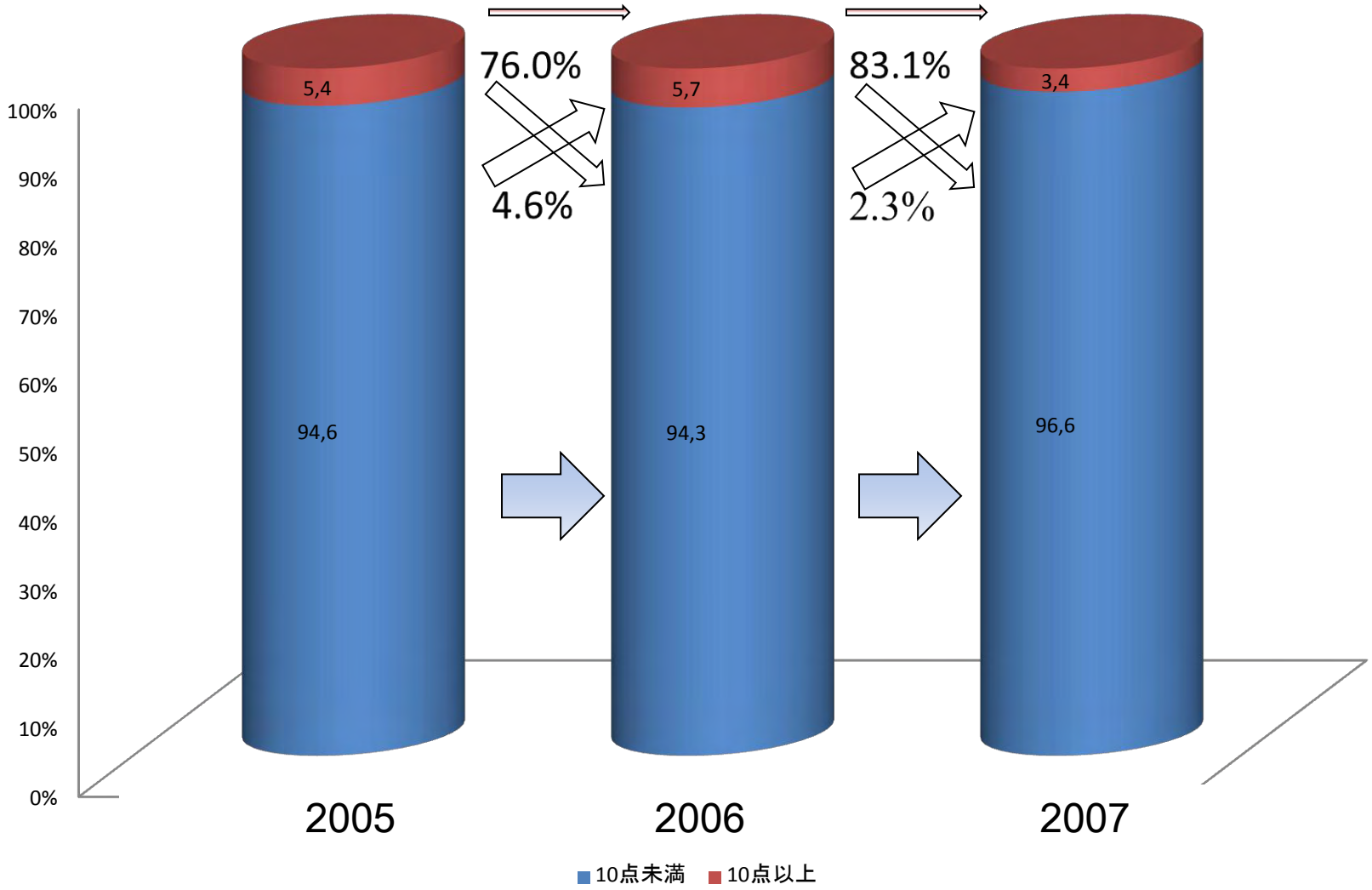
(+) severe distress

(+) physiological response
Palpitation, etc.

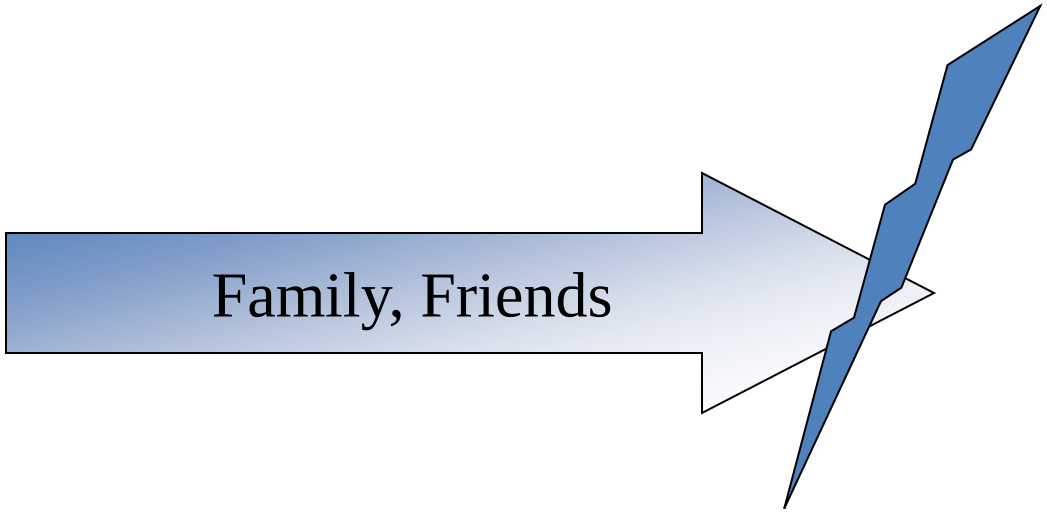


http://www.mhlw.go.jp/stf/houdou/2r9852000001rwxw.html

The victims with moderate mental health deterioration (K6) Niigata Chu-etsu Earthquake (2004) (n=3,538)



Traumatic Loss



Want to forget the traumatic memory

Want to recall the memory of the lost people

③Policy for post-disaster mental heath care centers

Aim

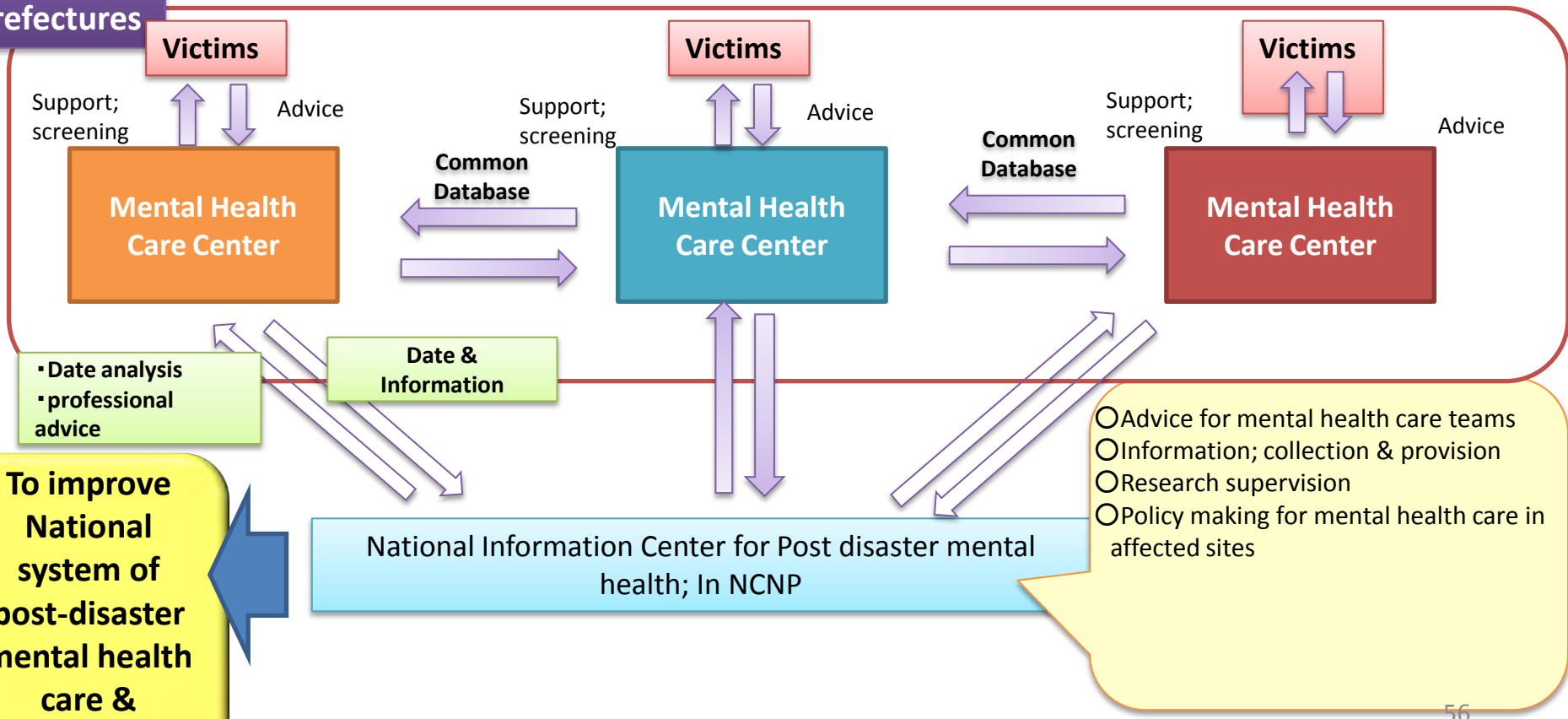
As some vicitms may manifest chronic mood and anxiety symptoms after the great East Japan Earthquake, including PTSD symptoms; 、

1 Aid the establishment of mental health care center in the affected prefectures

2 Establish National Information Center for Post disaster mental health; overall accommodation of mental health care teams , provide professional advice, analyse data & information.

3 Monitor the treatment of severe cases of psychiatric disorders precipitated by the disaster trauma, such as PTSD, and contribute to the improvement of the community mental health in affected sites. Improve the nationwidel preparedness for mental health care after future disasters.

Affected prefectures



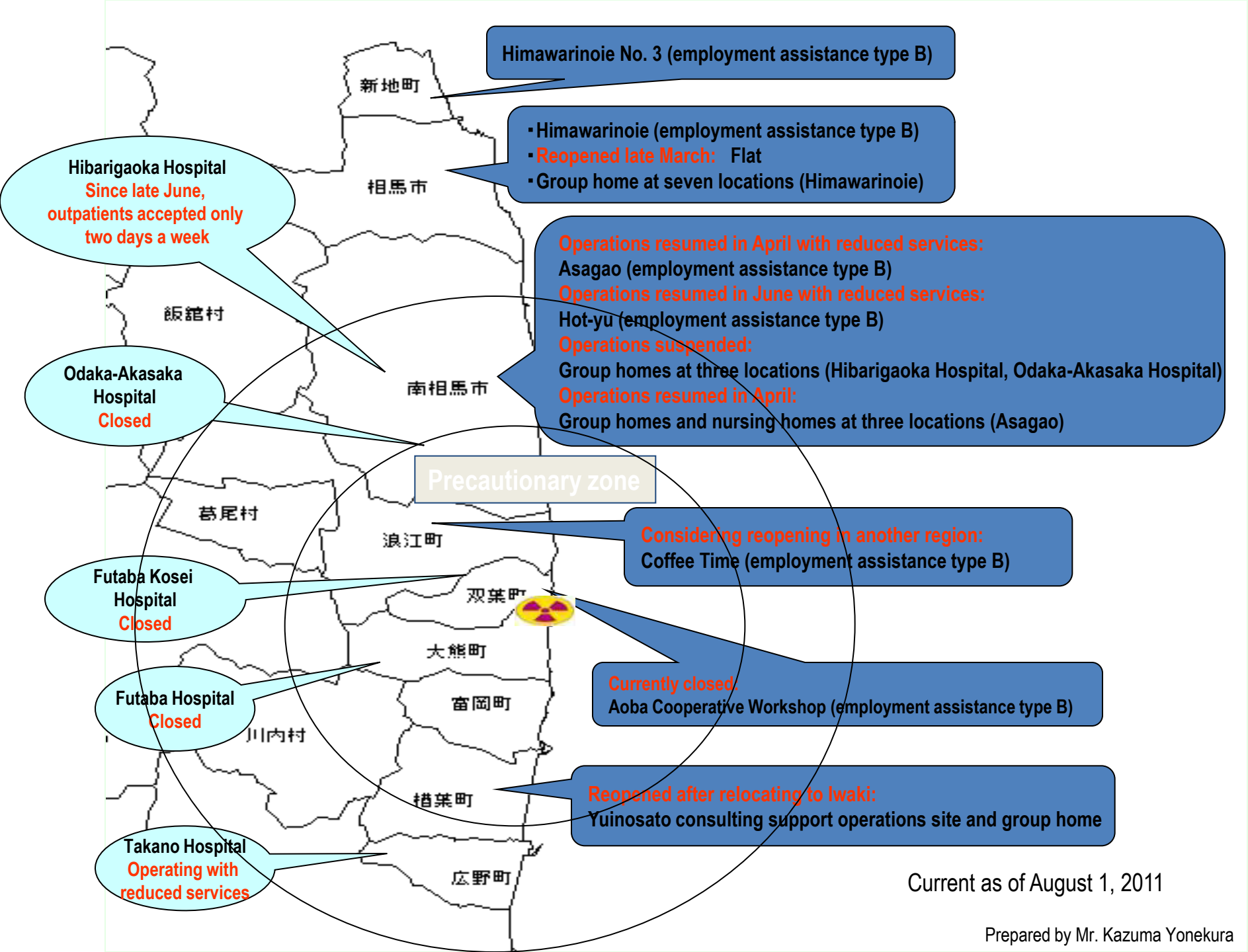
Nuclear Power Plant Accident

Professor Niwa Psychiatry Fukushima Medical University

福島県内の被ばく状況

- 数値の呈示
- 避難地域の呈示

煙を上げる福島第一原発の3号機周辺（21日午後5時15分）＝東京電力提供



Current as of August 1, 2011

Prepared by Mr. Kazuma Yonekura

Population Outflow

Dropped below 2 million

1st time in these 33 years

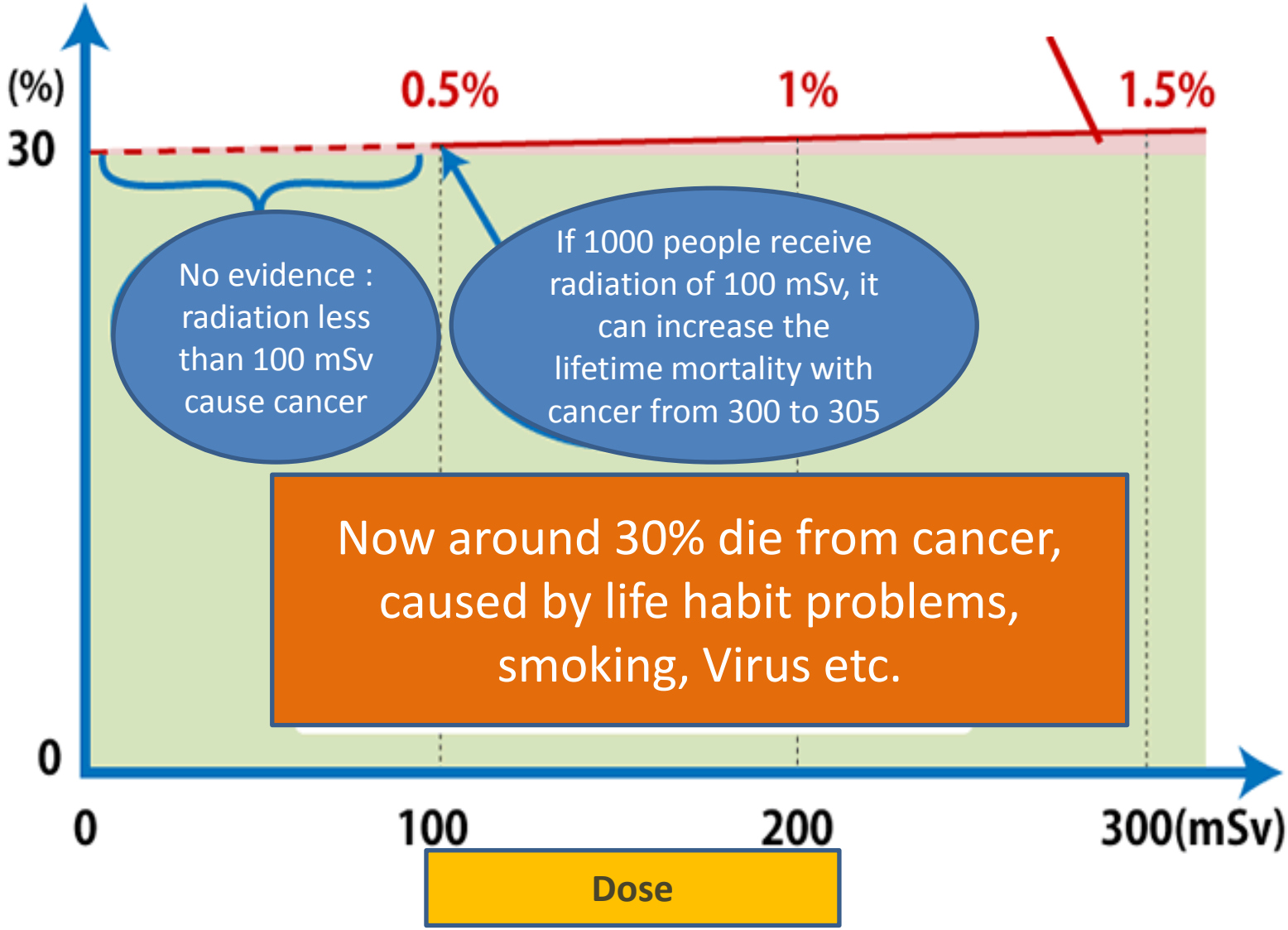
所在市町村	戸数	要請市町村別戸数	
福島市	1,382	浪江	924
		双葉	120
		飯舘	338
二本松市	1,069	浪江	1,069
伊達市	126	飯舘	126
本宮市	475	浪江	475
国見町	100	国見	63
		飯舘	37
桑折町	300	桑折	14
		浪江	286
川俣町	230	川俣	230
大玉村	648	富岡	648
郡山市	1,273	富岡	622
		川内	401
		双葉	250
須賀川市	194	須賀川	194
田村市	360	田村	360
三春町	770	富岡	330
		葛尾	440
鏡石町	100	鏡石	100
白河市	260	白河	140
		双葉	120
矢吹町	85	矢吹	85
西郷村	42	西郷	42
会津若松市	884	大熊	879
		双葉	5
会津美里町	259	楢葉	259
猪苗代町	10	双葉	10
相馬市	1,500	相馬	1,000
		飯舘	164
		南相馬	243
		浪江	93
南相馬市	2,134	南相馬	2,134
新地町	573	新地	573
いわき市	2,673	いわき	189
		広野	678
		楢葉	975
		富岡	282
		双葉	259
		大熊	240
		川内	50

2011.9.8福島民報

Acute and chronic radiological effects

- Deterministic Effects
  - Acute, hemopoietic, gastrointestinal, central nervous, intensity, high dose, threshold(+), severity correlates with the dose
- Stochastic Effects
  - Chronic, cancer and genetic defects, time course, low dose, threshold(-), frequency correlates with time course ? : much controversy
- No inhabitant has been yet confirmed to suffer from acute and deterministic radiological effects, except those who worked within the power plant

Increase of cancer and leukemia due to radiation



overall situation

- In the vicinity of the evacuated zone, those who wish to escape have actually done so, including some doctors and medical staffs in community clinics. Those who remain except care providers are somehow selected to be the people who have economical or financial difficulty, are indifferent to the situation, or handicapped physically, mentally or socially.
- The local care providers are also the victims; i.e. a number of community nurses have children of their own and cannot escape so long as inhabitants remain.
- The information provision of the nuclear disaster itself is relatively. As a result, community mental health staffs have to respond to questions, or even anger, of the inhabitants regarding the nuclear accident itself.

Agenda of the program(2~4hours)

- １）focus of mental health care and the time course of inhabitants’ response
- ２）PTSD and trauma
- ３）Grief care
- ４）Care providers’ mental health
- ５）radioactivity and mental health
- ６）Q&A
- ７）group work

Comments from community Ns

- I take care of a family with small children, who had conflicts prior to disaster. They live close to the evacuation zone but are too much involved in familial conflicts to make sound decision of escape. I cannot make effective support or intervention, and feel quite powerless.
- I met a family who spontaneously went to relative's house, 1000 away, and when they returned to hometown near the power plant, their child started to have diarrhea, lasting for a week. Is it radiological effect?

Questions from school

- Some parents confine their children for fear of radiological contamination. Could this be a sort of abuse when it lasts long?
- Our school cannot make decision of letting children play outside or use swimming pool, because some parents are always quite anxious and would never agree with us.
- We'd better not bear children, for newborns will have increased risk for cancer?

Ongoing projects at Fukushima

1 Fukushima Medical University

restoration of mental care and psychiatric service

2 Prefectural Mental Health Center

regulation of the activity of local health centers

3 Fukushima prefecture

prepare the life-long health check of inhabitants

Medical service 1: Outpatient treatmer

Temporary Psychiatric Unit

at Soma General Hospital

Mon – Fri : 13:00-15:00, 2 Psychiatrists

# of Patient：About 15 patients / day

Diagnose:

- schizophrenia
- mood disorders
- developmental disorders
- epilepsy
- dementia
- alcohol abuse
- PTSD

Age：infant – the elderly (80s)

大川貴子先生作成

Activity at Temporary Housing

(since June 30th → continue 2years)

大川貴子先生作成

Issues Regarding Mental Care

- 1. Continuing and sustaining treatment for psychiatric patients
- 2. Intervening early in new occurrences of PTSD and alcohol dependency due to the earthquake disaster and nuclear accident
- 3. Implementing measures to combat insecurity about radiation contamination
- 4. Preventing the reduction of cognitive functions for the elderly
- 5. Deterring suicides
- 6. Improving mental health care provided by medical and welfare staff

Conceptual diagram of the Project for Establishing a New Psychiatric, Medical, Public Health, and Welfare System in Sousou

Approaching temporary housing (Shinchi Town, Soma City, and Minamisoma City)

- "Itsumo Kokode Hitoyasumino Kai" (club where you can have a break any time)
- Salon
- Visiting all households (November, March, and July)

Activities at Soma City Public Health Center and Haramachi Public Health Center in Minamisoma City

- "Chotto Kokode Hitoyasumino Kai" (club where you can have a little break)

Mental consultation at annual personal/medical checkups

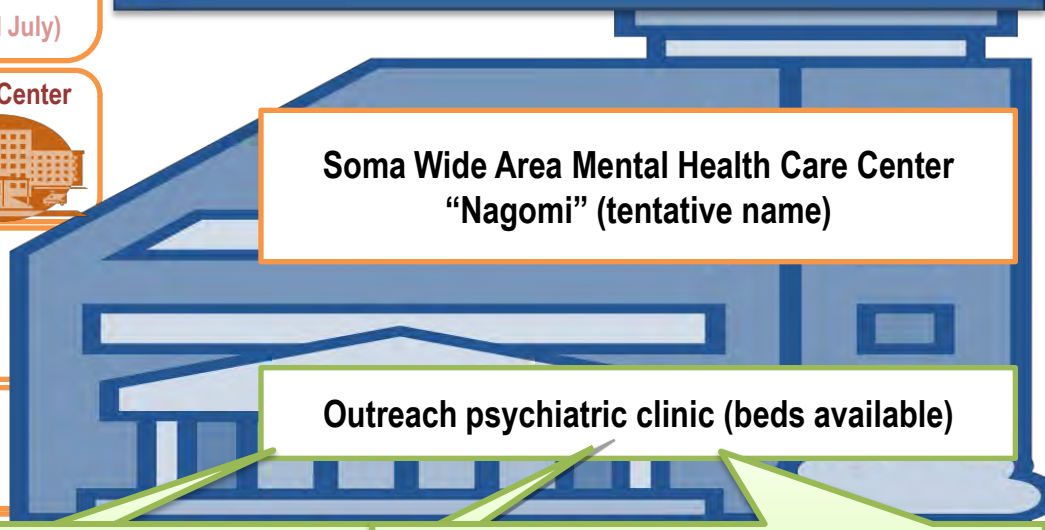
- Soma wide area firefighters
- High school teachers
- Shinchi homes
- Municipal government offices/ municipal government personnel

Support for implementation of treatment for persons who have not had any checkups and those whose treatment has been suspended

- Consultations
- Visits

Contacting psychiatric, medical, public health, and welfare related personnel

- Workshops
- Periodic meetings
- Preparation of DVDs



Soma Wide Area Mental Health Care Center "Nagomi" (tentative name)

Outreach psychiatric clinic (beds available)

Small-scale psychiatric day care services

Visiting nurses (responding around the clock)

Hospital beds for inpatients (2–3 beds) (crisis intervention and respite care)

Operation of patrolling vehicles

Visits

Welfare facilities (regional activities support centers/ group homes, etc.)

Own home

Establishing means of transportation

Transport to hospital on Nakadori Avenue

Document distributed on August 6, 2011
The Secretariat proposal

Care for children

2011. 6/27: 心のケアチームの一部としてのこどもの心のケアの活動・連携状況 （医大医学部神経精神医学講座作成）

厚生労働省

福島県災害対策本部

県障がい福祉課

県知事

派遣要請

日本児童青年精神医学会・日本小児心身医学会派遣専門医

県臨床心理士会派遣臨床心理士

チームを構成：下記地域で予約診療・相談

県立医大災害対策

県精神保健福祉センター
＜地域ニーズの全県調整＞

＜こどもの心のケアチーム＞

【日本児童青年精神医学会】
【日本小児心身医学会】

【福島県精神医学会】
【福島県臨床心理士会】

【福島県児童家庭課・児童相談所】
【福島県養護教育センター】

【福島医大医学部】
小児科学講座
神経精神医学講座

【福島医大看護学部】
精神看護学領域
心理学教員

＜心のケアチーム＞

浜通り以外地域でのチーム編成
県内精神科医（精神科病院協会・診療所協会等）・臨床心理士会・PSW協会・看護協会

相双地域でのチーム編成
県外からの精神科医師
看護師・心理士・PSW等
医大：精神科医
医大：看護学部職員（精神）
相双保健福祉事務所保健師

いわき市でのチーム編成
医大：精神科医
医大：性差医療センター医師
+医大：看護師・CP

会津　診療・相談：県立会津総合病院

会津　相談：会津保健福祉事務所

中通り　診療・相談：総合療育センター・県立矢吹病院・福島医大

浜通り以外

専門医/臨床心理士ペアで予約診療
保健所乳幼児健診で、児観察・母の相談
避難所での親子を対象とした相談・診療
放射能に関しての適切な啓発活動
小児科クリニックと児童相談所の連携

診療・相談：公立相馬総合病院

相談：相馬市保健センター

相双

診療・相談：長橋病院

相談：いわき市保健福祉センター

いわき市

No reason to be anxious
No reason to feel safe.

- Anxiety is projected to outer world and lead negative appraisal or selection of negative information, or biased perception, which in turn enhance anxiety.

BJPsych | The British Journal of Psychiatry (2011)
199, 411–416. doi: 10.1192/bjp.bp.110.085472

Persistent distress after psychological exposure to the Nagasaki atomic bomb explosion

Yoshiharu Kim, Atsuro Tsutsumi, Takashi Izutsu, Noriyuki Kawamura, Takao Miyazaki and Takehiko Kikkawa

Background
Although there is speculation that individuals living in the vicinity of nuclear disasters have persistent mental health deterioration due to psychological stress, few attempts have been made to examine this issue.

Aims
To determine whether having been in the vicinity of the Nagasaki atomic bomb explosion in the absence of substantial exposure to radiation affected the mental health of local inhabitants more than half a century later.

Method
Participants were randomly recruited from individuals who lived in the vicinity of the atomic bomb explosion in uncontaminated suburbs of Nagasaki. This sample ($n = 347$) was stratified by gender, age, perception of the explosion and current district of residence. Controls ($n = 288$) were recruited from among individuals who had moved into the area from outside Nagasaki 5–15 years after the bombing, matched for gender, age and district of residence. The primary outcome measure was the proportion of those at high risk of mental disorder based on the 28-item version of the General Health Questionnaire, with a cut-off point of 5/6. Other parameters related to individual perception of the explosion, health status, life events and habits were also assessed.

Results
Having been in the vicinity of the explosion was the most significant factor (OR = 5.26, 95% CI 2.56–11.11) contributing to poorer mental health; erroneous knowledge of radiological hazard showed a mild association. In the sample group, anxiety after learning of the potential radiological hazard was significantly correlated with poor mental health ($P < 0.05$), whereas anxiety about the explosion, or the degree of perception of it, was not; 74.5% of the sample group believed erroneously that the flash of the explosion was synonymous with radiation.

Conclusions
Having been in the vicinity of the atomic bomb explosion without radiological exposure continued to be associated with poorer mental health more than half a century after the event. Fear on learning about the potential radiological hazard and lack of knowledge about radiological risk are responsible for this association.

Declaration of interest
None.

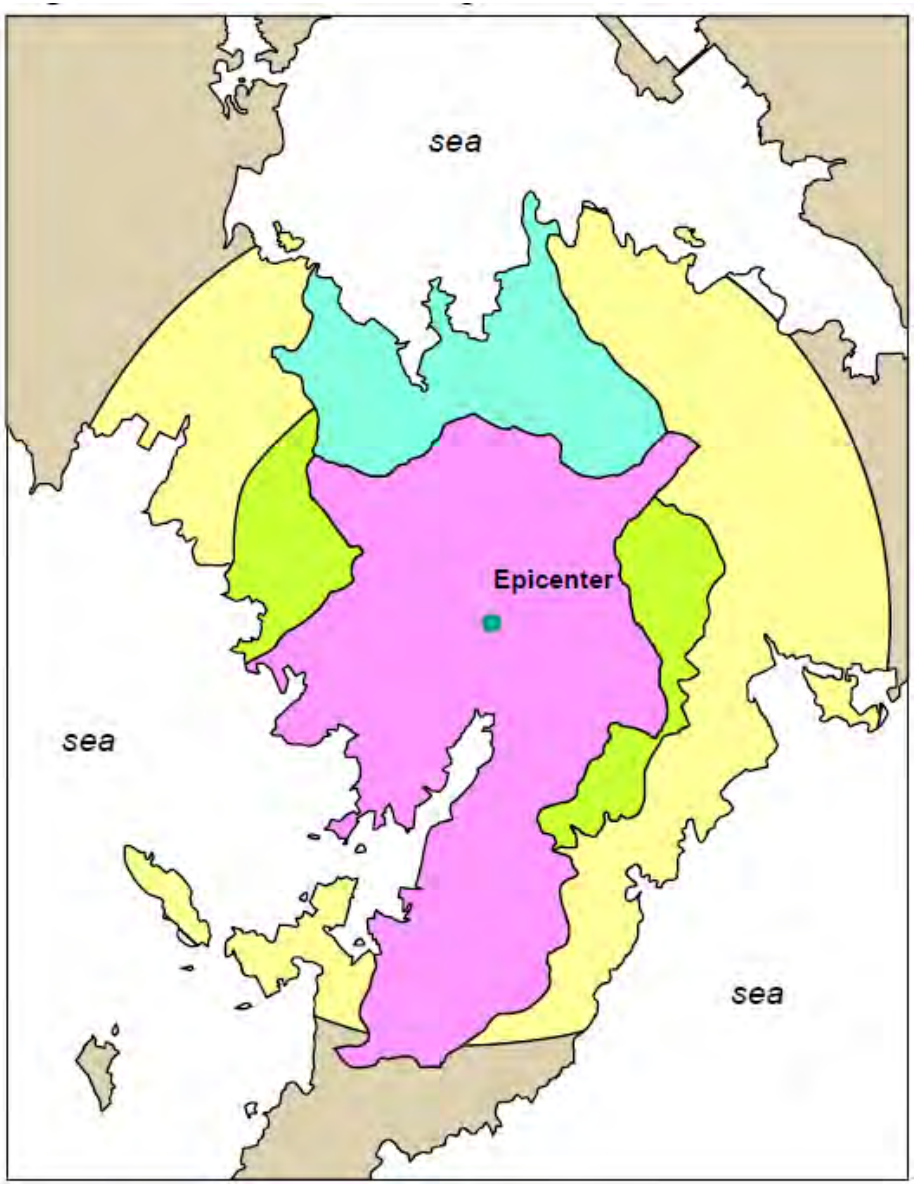


Figure 1. District of Nagasaki

correct knowledge on atomic bomb

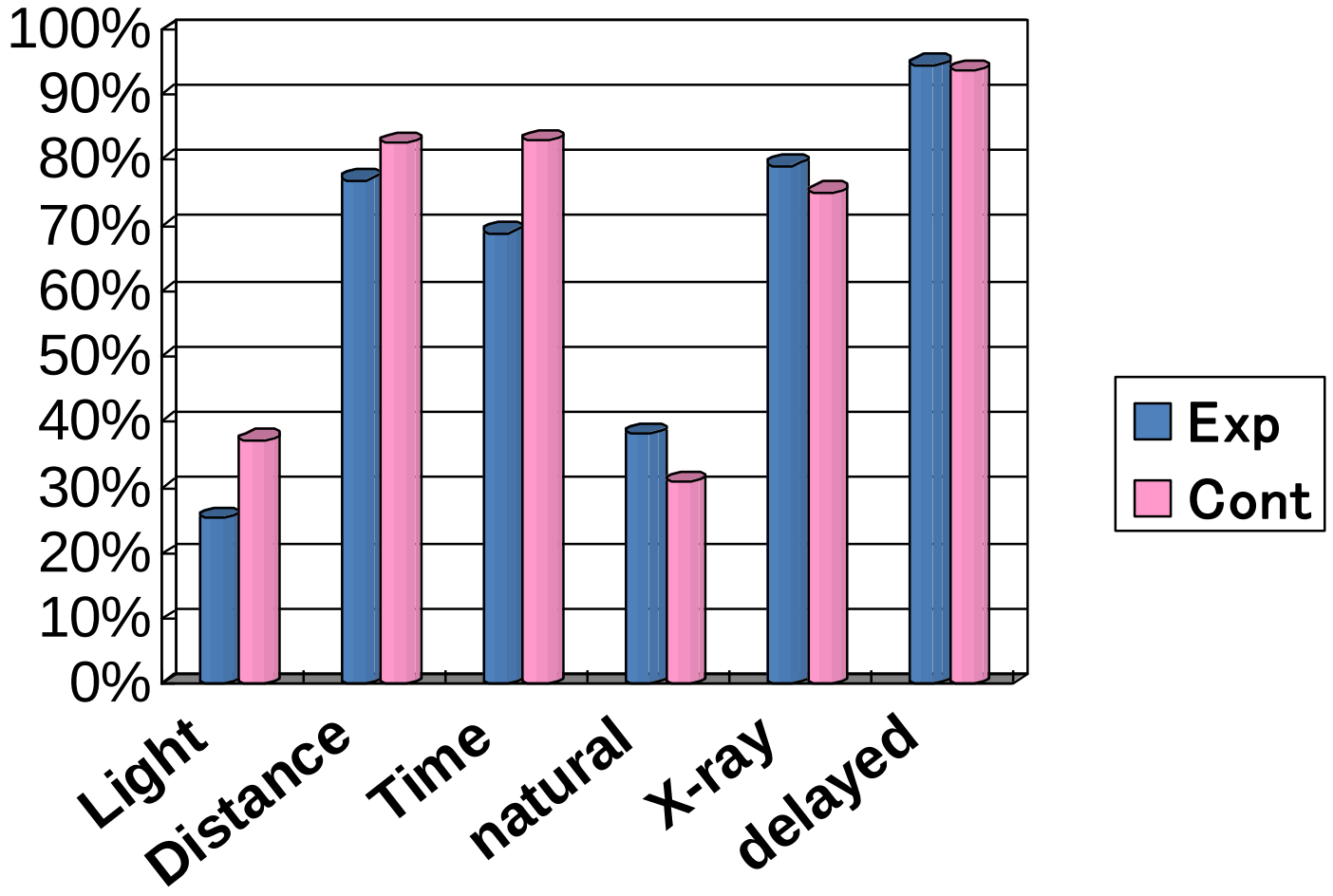


Table 2. Contribution of variables to poorer mental health

	Adjusted odds ratio	95% CI		*p*
Sample group[b]	5.26	2.56	11.11	<0.001
Age	0.98	0.93	1.04	N.S.
# of family members living with	0.91	0.76	1.10	N.S.
Years of education	1.06	0.90	1.24	N.S.
Job history of farmer/ fishery	2.11	0.95	4.66	N.S.
Loss of spouse/ relative within 3° due to atomic bomb	1.75	0.89	3.44	N.S.
Presence of physical disease within 6 mo. [b]	1.77	0.82	3.80	N.S.
# of non-atomic traumatic events	1.18	0.99	1.41	N.S.
Erroneous knowledge on radiation[c]				
Radioactivity is different from lightening	2.14	1.05	4.33	<0.05
Radioactivity decreases over time	1.94	0.85	4.41	N.S.
Natural exposure to radiation occurs	2.37	1.16	4.84	<0.05

Implications

- Anxiety of radiological pollution can develop independently of substantial pollution
- Information provision should be done beyond the boundary of substantial pollution
- Appraisal or selective bias of information should be taken into account
- Information would be better provided as a part of support, in an interactive way
- Scientific “safety” is different from psychological “security”


Thank you