



## セッション6 マスギャザリングと厚生労働省の対応

講師：国立保健医療科学院 健康危機管理研究部 部長 齋藤智也

注) 予定されていた講師の厚生労働省杉原調整官が急遽欠席となったため、国立保健医療科学院部長齋藤部長より、厚労省のマスギャザリングにおける公衆衛生の役割に関して説明を行った。

厚生労働省の大規模イベントに対する対応体制を紹介した。大規模イベントの開催時においてもまずは、平時より準備されている緊急事態発生時の初動対応がベースになる。政府の緊急事態発生時の初動対応の流れとして、まず緊急事態の情報は内閣情報集約センターに入り、官邸危機管理センターで集約される。緊急事態のレベルに応じて、緊急参集チーム、あるいは官邸の中に情報連絡室、官邸連絡室、官邸対策室が設けられる。さらに大きな災害の際は政府対策本部が設置される。加えて公衆衛生上の危機に対しては、厚労省では健康危機管理・災害対策室が省内の調整・情報集約拠点となり、省内の関係部局、関係課との対応の調整に当たる。

東京2020大会に向けての組織としては組織委員会と推進本部の2つがある。組織委員会は、東京都と日本のオリンピック委員会が設立した公益財団法人であり、大会の準備・運営を担当する。対して、東京オリンピック・パラリンピック競技大会推進本部は、特別措置法に基づいて政府により設立された、首相を本部長とする組織体であり、東京オリンピック大会の運営に国として協力と支援を行っていく役割がある。推進本部の事務局は内閣官房に設置されており、政府の一員として厚生労働省も推進本部に関わっている。さらに、推進本部には関係省庁連絡会議が設置され、その元にセキュリティ幹事会が設置され、さらにテロ等警備対策ワーキングチーム、サイバーセキュリティワーキングチーム、セキュリティ情報センターが設置されている。厚労省内には健康危機に関する情報集約・対応の調整を行う健康危機管理調整会議があり、その下にオリンピック・パラリンピック健康危機管理連絡会議が設置されている。

東京大会に向けた厚労省の所掌する活動は、自然災害と人為的な災害それぞれに関して、公衆衛生対策と医療体制の整備を行うことである。感染症対策や、食品衛生、熱中症医療体制、外国人医療体制のほか、テロ等を想定した病原体管理や医薬品等の備蓄、熱傷・外傷治療のトレーニング等が含まれており、体制整備が順次進められている。



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## **Session#6 Japan's Health Preparedness**

### **for Tokyo 2020 Olympic/Paralympic Games**

**Presenter: Dr. Tomoya Saito, Department of Health Crisis Management, National Institute of Public Health**

Note: In this session, Dr. Saito made a presentation on behalf of Dr Sugihara of MHLW who could not attend the symposium due to an urgent business .

The Ministry of Health, Labour and Welfare (MHLW)'s preparedness and response for a mass gathering event was introduced. Even in a mass gathering event, the emergency response system is the same as usual. Cabinet Information Collection Center (CICC) will be firstly informed about the emergency, and Cabinet Crisis Management Center (CCMC) aggregates the information. Depending on the level of emergency, Emergency Response Team will be mobilized and/or Cabinet Liaison/Response Office will be established. In the event of a major disaster, a National Countermeasures Headquarters will be established additionally, in case of a public health crisis, Office of Public Health Emergency Preparedness and Response (OPHEPR) in MHLW will serve as the ministry's coordination and information gathering base, coordinating the response of the ministry's relevant departments and divisions.

There are two organizations for the Tokyo 2020 Games: the Tokyo Organizing Committee for Olympic/Paralympic Games (TOCOG) and Headquarters for 2020 Tokyo Olympic and Paralympic Games. TOCOG is a public interest incorporated association, established by Tokyo metropolitan government and Japan Olympic Committee, and is responsible for the preparation and operation of the Games. Headquarters for 2020 Tokyo Olympic and Paralympic Games is established by the Special Act on Measures for the 2020 Tokyo Olympic and Paralympic Games (2015) and is headed by the Prime Minister. The Headquarters is responsible for providing national cooperation and support for the Games. The secretariat of the headquarters is located in the Cabinet Secretariat, and the Ministry of Health, Labour and Welfare (MHLW) is also involved in the headquarters as a member of the government. In addition, the Inter-agency Coordination Meeting has been established in the Headquarters, under which the Senior Officials Meeting for Security Issues has been established, as well as a working team for anti-terrorism and security and cybersecurity and National Policy Agency's Intelligence Center. MHLW established the MHLW Coordination Meeting for Tokyo Olympic/Paralympic Health Preparedness. MHLW is responsible for the development of public health and medical systems both for natural and man-made disasters. These include measures against infectious diseases, food hygiene, heat stroke, and medical care for foreign visitors, as well as pathogens control, stockpiling of medicines and other supplies, and training for treatment of burns and trauma in case of deliberate attacks.

## セッション7 マスギャザリングと感染症サーベイランス

講師：国立感染症研究所感染症疫学センター 室長 松井 珠乃

**講師略歴：**医師、医学博士、熊本大学医学部皮膚科教室入所・皮膚科助手を経て、2005年4月より国立感染症研究所感染症情報センター主任研究官。2013年より現職。専門分野は感染症疫学。厚生労働行政推進調査事業「大規模イベント時の健康危機管理対応に資する研究」班分担者。

マスギャザリングイベントには4つの特性と講じるべき対応がある。まず、訪日外国人等により疾患疫学に変化が出ることに對して、事前のリスク評価に基づいて、サーベイランスと対応の強化プランを立てる必要がある。現状のシステムを最大限活用しつつ、イベントベース・サーベイランスなど新しいサーベイランスの追加が必要か検討する。関連施設の近隣医療機関との連携や、日報による情報共有も重要である。また、管轄自治体を越えて患者が移動する可能性が高まる場合、自治体間の患者情報共有の仕組みを確立する必要がある。国際的な関心の高まりに對しては、妥当な予防と対応の方針を立て、国際的な情報発信を適切に行う。政治的に注目度が高い場合には、関係者の間で適切に情報共有を行うことが大切である。

2016年の伊勢志摩サミット、2019年の大阪サミットとラグビーワールドカップと、日本は徐々にリスクレベルが高い、また特性の異なるマスギャザリングイベントを経験してきており、東京2020大会は集大成になる。これまでのイベントでの取り組みの例を挙げる。戦略的サーベイランスとしては、原因不明重症感染症サーベイランス（疑似症サーベイランス）が2019年4月に導入された。医療機関と公衆衛生当局との連携体制によって運用が可能となった、イベントベース・サーベイランスである。2019年のG20大阪サミットから実施され、順次広がり、東京大会では全国的な稼働が期待されている。武漢からの渡航者に関連した新型コロナウイルス感染症患者の初期報告事例もこのサーベイランスで探知された。他にも国立感染症研究所のFETPが国内外のメディアスクリーニングを常時行っている。2019年のラグビーワールドカップでは、WHOや国際保健規則（IHR）の国内フォーカルポイントとの協力体制も築いた。管轄区域を越えた事例に對しては、疾患サーベイランスを強化したほか、厚生労働省におけるイベントベース・サーベイランスも強化した。関係者の情報共有も重要であり、ラグビーワールドカップの際には自治体の感染症部局等に対して、厚生労働省から日報が送付されたことが有用であった。また、海外の公衆衛生当局に對して、日本を訪問する際に考慮すべきワクチンについて情報をまとめて公開している。

統括としてサーベイランス体制の整備にあたっては、戦略的なサーベイランスと対応の計画、情報共有、公衆衛生当局と医療機関との連携が重要である。



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## **Session#7 Infectious Disease Surveillance in Mass Gathering Events in Japan**

**Presenter: Dr. MATSUI Tamano, Division Chief, Infectious Disease Surveillance Center, National Institute of Infectious Diseases (NIID)**

**Biography:** Dr. MATSUI Tamano, MD, PhD graduated from the School of Medicine, Kumamoto University and started her career as a dermatologist. Dr. Matsui has worked at the Infectious Disease Surveillance Center, National Institute of Infectious Diseases as a chief researcher since 2005 and as a division chief since 2013. Dr. MATSUI is a member of the Ministry of Health, Labour and Welfare (MHLW) Health Science Research Group “Health Security for Mass Gathering/High Profile Events”.

There are four characteristics of mass gathering events and responses that should be taken. First, a plan for enhanced surveillance and response needs to be developed to address changes in disease epidemiology due to foreign visitors to Japan based on a preliminary risk assessment. While maximizing the use of the current system, we should consider whether additional surveillance, such as event-based surveillance, should be conducted. Enhanced collaboration with neighboring medical institutions in related facilities and information sharing through daily reports are also important. If there is an increased likelihood of patients moving across jurisdictions, mechanisms for sharing patient information between municipalities should be established. Appropriate international information dissemination should be carried out in response to increased international concern, with reasonable prevention and response policies in place. In cases of high political attention, it is important to ensure appropriate information sharing among stakeholders.

Japan has been prepared to Tokyo 2020 through exposure to different types of mass-gathering events which required the special surveillance system; G7 summit 2016, G20 summit 2019, and RWC 2019. Examples of efforts at previous events include; undiagnosed serious infectious illness surveillance, which was implemented into routine system in April 2019 as a complementary system of notifiable disease reporting. It is an event-based surveillance, made operational through a partnership between health care institutions and public health authorities. It was implemented starting with the 2019 G20 Osaka Summit and is expected to expand gradually, with nationwide operation at the Tokyo Congress. First case of COVID-19 linked to travelers from Wuhan were also captured through this surveillance. Additionally, FETP at NIID is conducting daily screening of national and international media.

In the RWC, cooperation with WHO and national IHR focal point was intensified. To overcome jurisdictional barriers, notifiable disease surveillance was enhanced, as well as event-based surveillance at MHLW. Information sharing among stakeholders was also important. In the case of the RWC, the MHLW sent daily reports to the infectious disease departments of local governments and key partners. In addition, information on vaccines that should be considered when visiting Japan is compiled and disclosed to overseas public health authorities.

As a summary, strategic surveillance and response planning, operational communication and collaboration between public health and medical sectors are important in the development of a surveillance system preparedness for a mass gathering event.

# Infectious Disease Surveillance at Mass Gathering Events in Japan

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## Key concepts and characteristics of recent and upcoming Mass Gathering Events (MG)

### WHEN to strengthen surveillance/response at MGs?

<b>Risk of change in disease epidemiology</b>  e.g., many foreign visitors, and/or likelihood of disease transmission at the MG	<b>More travel beyond jurisdiction in Japan</b>  e.g., travel to other local gov unit (LGU) during incubation period
<b>International concern</b>  e.g., international disease spread	<b>Political sensitivity</b>  e.g., reputational risk of minor event, to work with unique stakeholder

### Characteristics of MGs

	G7 Summit (2016)	G20 Summit (2019)	Rugby World Cup 2019	Tokyo 2020
Dates (duration)	May 26-27 (2 days)	Jun 28-29 (2 days)	Sep 20- Nov 2 (1.5 months)	Olympics: Jul 24-Aug 9, 2020 (17 days) Paralympic: Aug 25-Sep 6 (13 days)
Place	Shima city, Mie	Osaka city	12 game venues in 12 prefectures and other related places (e.g., camps, public viewing)	Game venues mainly in Tokyo
Concerned population	<ul style="list-style-type: none"> <li>VIPs and gov officials (domestic/international)</li> <li>Media (domestic/international)</li> <li>20,000 Policemen (domestic)</li> </ul>	<ul style="list-style-type: none"> <li>VIPs and gov officials (domestic/international)</li> <li>Media (domestic/international)</li> <li>20,000 Policemen (domestic)</li> </ul>	<ul style="list-style-type: none"> <li>1.3 million spectators in total (domestic/international)</li> <li>Athletes and staff (domestic/international)</li> <li>Volunteers (domestic)</li> </ul>	<ul style="list-style-type: none"> <li>7.8 million (Olympic) and 2.3 million (Paralympic) spectators expected (domestic/international)</li> <li>Athletes and staff (domestic/international)</li> <li>Volunteers (domestic)</li> </ul>

### Analysis of risk level

	G7 Summit	G20 Summit	Rugby World Cup 2019	Tokyo2020
Risk of change in disease epidemiology	Low (highly controlled stakeholders)	Low (highly controlled stakeholders)	Moderate (many foreign spectators staying for prolonged period)	Moderate (many foreign spectators staying for prolonged period)
Risk of "jurisdiction issue"	Low (localized)	Moderate (Multi-jurisdictional event)	High (Japan-wide event)	High (Spectators will move all over Japan)
International concern	Moderate (high international media coverage)	High (high international media coverage, variety of participating countries)	Moderate (high international media coverage, possibility of disease transmission overseas)	High (VERY high international media coverage, possibility of disease transmission overseas)
Political sensitivity	High	High	Low	Moderate

### HOW to strengthen surveillance/response at MGs?

<b>Risk of change in disease epidemiology</b>  ~Enhanced surveillance and response planning based on the MG specific risk assessment	<b>More travel beyond jurisdiction in Japan</b>  ~Mechanism to exchange case information between local government units ("Jurisdiction issue")
<b>International concern</b>  ~appropriate preventive/control measure, appropriate risk communication during outbreak to international community	<b>Political sensitivity</b>  ~Appropriate operational communication (e.g., daily report, how to ensure NO outbreak ongoing), Formal collaborating mechanism between sectors

# Risk assessment and planning, Tokyo 2020 as an example

## Steps of planning enhanced surveillance

### RISK ASSESSMENT

Identify and document infectious diseases which will have **increased risk** at the MG

### Need enhancement of CURRENT SYSTEM?

To deal with increased risk at the MG, **modification of CURRENT SYSTEM** should be considered firstly

### Need NEW surveillance system?

How to deal with increased risk **among MG stakeholders** should be considered depending on the risk assessment (e.g., **EBS among MG staff**)

Risk assessment and disease specific response plan for Tokyo 2020

		Risk assessment			National Surveillance	Remarks
		increased risk of imported cases	increase d risk of transmission	Risk of massive outbreak and serious outcome		
VPD	Measles	Yes	Yes	Yes	Notifiable	National response guideline available
	Rubella	Yes	Yes		Notifiable	National response guideline available
	Invasive meningococcal meningitis (IMD)		Yes	Yes	Notifiable	National response guideline in progress
	Influenza	Yes	Yes		Sentinel	EBS among Tokyo 2020 stakeholders
	Pertussis	Yes	Yes		Notifiable	National Surveillance guideline available
Emerging/re-emerging infectious disease	MERS	Yes	Yes	Yes	Notifiable	National response guideline available
	Dengue, Chikungunya, Zika	Yes			Notifiable	National response guideline available
Food borne disease*	EHEC		Yes	Yes	Notifiable	
	Shigellosis	Yes	Yes		Notifiable	
	Hepatitis A,E	Yes	Yes		Notifiable	
	infectious gastroenteritis (e.g., norovirus infection)	Yes	Yes		Sentinel	EBS among Tokyo 2020 stakeholders
others	Tuberculosis	Yes	Yes		Notifiable	National guideline available
	Syphilis	Yes	Yes		Notifiable	
	HIV/AIDS	Yes	Yes		Notifiable	

\*potential of H-H transmission for some diseases

## Progress through recent experiences of MGs

### Common strategy to deal with MGs

- Surveillance/response **planning** based on the MG specific **risk assessment**
  - Maximum usage of **existing** surveillance/response **system**
  - Enhanced collaboration with **nearby hospitals/clinics** as critical source of **EBS**
  - Daily report** issuing:
    - To include case/outbreak information (domestic/international) with **appropriate assessment**
    - To be shared among **key stakeholders**
  - Collaboration with **unique stakeholders** of the MG (e.g., organizing committee)

### Surveillance for on-site events of the MG

	G7 Summit	G20 Summit	Rugby WC	Tokyo2020
Notifiable disease reporting	<b>Routine system working</b>			
	<b>Active surveillance</b> to ensure <b>NO unusual event identified at nearby hospitals</b>	<b>Advanced reporting</b> of prioritized diseases	Information collection from physicians if the case is linked with RWC	TBD
"Undiagnosed serious infectious illness surveillance"*		Implemented at nearby/key hospitals in the area	Implemented Japan-wide (in progress)	Routine system
Ad-hoc surveillance	EBS among <b>policemen</b>		-	TBD
	Information from <b>first aid station</b> at the venue			

\*\***Undiagnosed serious infectious illness surveillance**!": based on success story at **London 2012** and our own experience at **G7 summit**, MHLW implemented new surveillance into **routine system in April 2019** as **complementary system** of notifiable disease reporting

### Appropriate risk assessment for off-site events of the MG

	G7 Summit	G20 Summit	Rugby WC	Tokyo2020
Information sharing of notifiable disease report between LGUs	Ad-hoc arrangement			
	-		Formalized routine information sharing platform for prioritized diseases	Routine information sharing platform available
EBS to cover domestic outbreaks	Media screening by FETP & IDSC, followed by sharing through daily report			
	-		MHLW's action to collect press release of LGUs	TBD
EBS to cover international outbreaks	Media screening by FETP & IDSC, followed by sharing through daily report			
	-	collaboration with WHO to use EIOS as pilot project	further collaboration with WHO on event screening and assessment using EIOS	TBD
	-		Communication channel creation with related IHR NFPs beforehand	TBD

EIOS: Epidemic Intelligence from Open Sources

### How was "jurisdiction issue" dealt with during RWC? (summary)

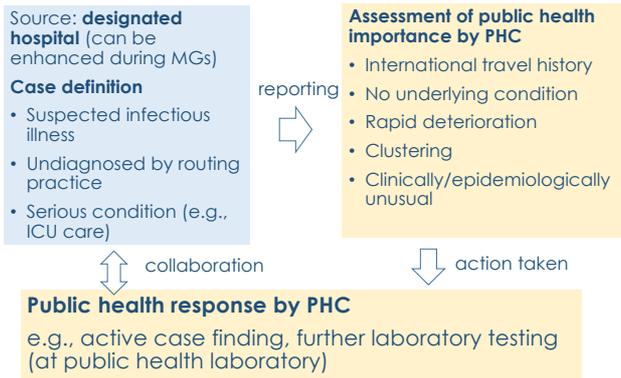
#### Enhancement of notifiable disease surveillance

- Reminding mandatory reporting system to physicians
- Heads up of RWC related cases: MHLW ask doctors to add "RWC related case" as remarks in a reporting form, if appropriate, for the sake of appropriate risk assessment at local gov and IDSC
- DAILY information sharing of high-risk diseases (measles, rubella, IMD, EHEC, MERS) during RWC among all local government units

#### Enhanced event-based surveillance at MHLW

- MHLW ask local governments to share press release of infectious disease outbreaks, followed by risk assessment at IDSC to be included in daily report (if appropriate) during RWC

### Undiagnosed serious infectious illness surveillance



### Information for ACTION

### Daily report at RWC

- Objectives: Sharing useful information at LGU and other stakeholders for response regarding RWC
- Publisher : IDSC/NIID, MHLW
- Recipients: Infectious Disease Control Division at all LGUs
- Frequency and timing : at noon, every weekday

Category	Description and assessment
Prioritized diseases (Measles, Rubella, IMD, EHEC, MERS)	Registered cases in the previous day
Undiagnosed serious infectious illness surveillance	
Press release of LGUs	Outbreaks which have potential to have impact on RWC
Other domestic events	
International events	

### Advocacy of VPD for international visitors

Original Research

#### Epidemiology of vaccine-preventable diseases in Japan: considerations for pre-travel advice for the 2019 Rugby World Cup and 2020 Summer Olympic and Paralympic Games

Matthew M. Griffin<sup>1\*</sup>, Munechisa Fukusumi<sup>2</sup>, Yuzuka Kobayashi<sup>3</sup>, Yuzuka Matsui<sup>4</sup>, Shingo Nishiki<sup>5</sup>, Reiko Shimabashi<sup>6</sup>, Saeko Morino<sup>7</sup>, Tomimasa Sunagawa<sup>8</sup>, Keiko Tanaka-Taya<sup>9</sup>, Tamano Matsu<sup>10</sup> and Kazunori Oishi<sup>11</sup>

\*Correspondence to: Matthew Griffin (email: griffin@niid.go.jp)

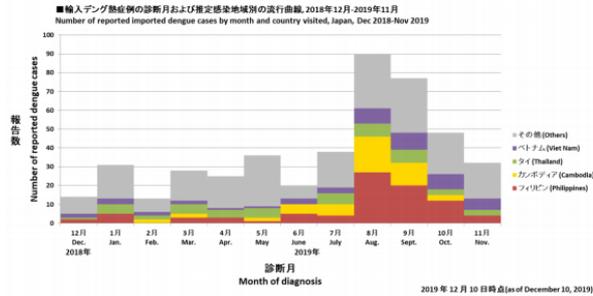
Target audience: Ministries of health and related organizations of RWC and Tokyo 2020

Pre-travel advice: consider vaccination for mumps, measles, rubella, influenza, and meningitis.

For increased exposure risk: advised about hepatitis A and Japanese encephalitis.

## Timely information sharing of imported dengue cases

■輸入デング熱の診断月および推定感染地域別の流行曲線\*、2018年12月-2019年11月  
Number of reported imported dengue cases by month and country visited, Japan,  
December 2018 – November 2019



\*直近12か月（2018年12月～2019年11月）における推定感染地として多い上位4か国とその他の国で積み上げ

<https://www.niid.go.jp/niid/ja/dengue-imported.html>

## Summary

- Strategic surveillance/response planning
  - Maxim usage of current system
- Importance of operational communication among key stakeholders
- Collaboration between public health sector and medical facilities

## Acknowledgements

- Stakeholders at Mie Prefecture, Osaka Prefecture, Osaka City, Tokyo Metropolitan Government and other prefectures which were/are involved in enhanced surveillance/response at the quoted MGs
- Stakeholders at Ministry of Health, Labor and Welfare, IDSC/NIID and FETP/NIID
- Stakeholders of Research on Emerging and Re-emerging infectious Diseases and Immunization (H27-shinkougousei-shitei-001, H30-shinkougousei-shitei-004)

## セッション8 オリパラの外国人医療体制

講師：国立国際医療研究センター救命救急センター 佐々木 亮

**講師略歴:** 2001年に山形大学を卒業、医師免許を取得後、国立国際医療センター初期研修医、救急部後期研修医、川口市立医療センター救命救急センター、を経て2018年より現職。日本救急医学会指導医、外傷専門医。

訪日外国人の現状として、訪日人数は2010年頃まで700～800万人で推移していたが、2012年以降は年間400～500万人規模で増加し、2018年には3119万人に達した。また、国立国際医療研究センター病院(NCGM)の救急外来への初診患者での外国人の数は、2018年には1,201人に上った。東京2020大会には20～80万人が訪日すると予測されている。渡航者に関する医療に関しての先行データを参照すると、渡航中に1～5%が医療機関を受診し、0.01～0.1%が救急搬送される。したがって、東京2020大会期間中に搬送される訪日外国人は20～800人と推定できるが、熱中症や感染症を加味すればさらに増加し得る。

このように東京2020大会に向けて多数の訪日外国人が医療機関を受診すると考えられる中で、対応可能な施設への受診の流れを整備する必要がある。現在、滞在施設や公共交通機関による救急要請や、クレジットカード会社の紹介やガイドブックへの記載によって外来受診先が決まる場合が多いが、外国人対応ができない病院が選ばれてしまう場合もある。病院検索サイトを利用する人は現状では少ない。検索サイトとしては3サイトの例が挙げられる。観光庁によるサイト(JNTO)

([https://www.jnto.go.jp/emergency/jpn/mi\\_guide.html](https://www.jnto.go.jp/emergency/jpn/mi_guide.html)) は、診療科目、クレジットカードが使用可能か、救急対応が可能かといった情報を5言語で掲示している。1,600以上の施設が掲載されているが、実際に外国人へ救急対応可能ができる施設は少ない。厚労省によるJMIP (<http://jmip.jme.or.jp/>)は5観点からの評価を満たした対応力のある病院のみが掲載されているが、ウェブサイトが外国語に対応していない。東京都によるひまわり(<http://www.himawari.metro.tokyo.jp/qq13/qqport/tomintop/>)は16言語に対応しているが、都民の認知度が低い。そこで、これらの情報を取りまとめ、救急患者の受け入れをできる施設をカテゴリー1、入院可能な施設をカテゴリー2としてリストを作成している。今後、受け入れ可能な施設に患者を誘導できるよう、ホテルや保険会社等と協力していく必要がある。さらに、日本臨床救急医学会が大会ボランティアに対しても知識啓発のためEラーニングを提供している。

またNCGMでは救急部門とエイズ開発部門が協力し、HIV曝露後の抗HIVの予防服薬等に関してフローチャートを制作した。協力施設に配布し対策を強化する予定である。

以上のように、東京2020大会にむけた外国医療体制整備としては、受診先決定のためのツール開発や、性感染症対策等が行われている。



国立国際医療研究センター救命救急センター 佐々木 亮氏

Dr. SASAKI Ryo, Department of Emergency Medicine and Critical Care,  
National Center for Global Medicine (NCGM)

## Session #8 Medical systems for International Patients

### during the Tokyo Olympic/ Paralympic Games in 2020

**Presenter: Dr. SASAKI Ryo, Department of Emergency Medicine and Critical Care, National Center for Global Medicine (NCGM)**

**Biography:** Dr. SASAKI has graduated from School of Medicine, Yamagata University in 2001 and trained in emergency medicine, critical care and trauma medicine in the National Center for Global Medicine (2001~2003, 2007~) and Kawaguchi Municipal Medical Center (2004~2006). He is a board-certified member of Japanese Association for Acute Medicine and Japanese Association for the Surgical of Trauma.

Until 2010, the number of foreign visitors to Japan remained around 7~8 million, but with a stepwise rise by 4~5 million after 2012, more than 31 million people visited Japan in 2018. 1201 foreign outpatient was transferred to NCGM by ambulance in 2018. It is expected that 200,000 to 800,000 people will visit Japan for the Tokyo 2020 Games. Prior data on medical care for visitors suggests that 1~5% of visitors seek medical care, and 0.01~0.1% will be taken to the emergency room during the trip. Therefore, it is estimated that between 20 and 800 foreigners will visit emergency room during the Tokyo 2020 Games, but this number could increase further if heat stroke and infectious diseases are taken into account.

With such a large number of foreign visitors to Japan during the Tokyo 2020 Games, it is necessary to establish a flow of medical consultations to facilities that can accommodate them. Currently, most calls for an ambulance are not from the patients themselves but are from hotels or public transport. In the case of outpatient, the patients tend to determine the hospital by an introduction from insurance/credit card company or guidebook. But in some cases, hospitals that cannot accommodate foreigners are selected. The number of people who use hospital search sites is currently low. Three websites provide the list of available hospitals; Japan National Tourism Organization website ([https://www.jnto.go.jp/emergency/jpn/mi\\_guide.html](https://www.jnto.go.jp/emergency/jpn/mi_guide.html)) offers the list of hospitals with its availability and specialty in 5 languages. Over 1600 facilities are listed, but few facilities can provide emergency services to foreigners. JMIP (<http://jmip.jme.or.jp/>) by the Ministry of Health, Labour, and Welfare lists only responsive hospitals that have been evaluated from five perspectives, but the website is not available in foreign languages. Himawari (<http://www.himawari.metro.tokyo.jp/qq13/qqport/tomintop/>) by the Tokyo Metropolitan Government is available in 16 languages but is not well recognized by Tokyo residents. Therefore, we are compiling this information provides a list of facilities that can accept emergency patients as Category 1 and those that can be admitted as Category 2 to direct patients to facilities that can accept them. The Japanese Society for Emergency Medicine is providing e-learning courses for game volunteers to raise awareness.

As for sexual-transmitted disease, NCGM created postexposure prophylaxis (PEP)/non-occupational postexposure prophylaxis (nPEP) Standard Protocol with the cooperation of the emergency department and AIDS Clinical Center. This protocol will be distributed to other cooperating facilities to reinforce measures.

As described above, as part of the preparation of the medical system for foreign visitors during the Tokyo 2020 Games, tools are being developed for determining where to go for medical examinations, and measures are being taken to counter sexually transmitted diseases.

# Medical systems for International Patients during Tokyo Olympic/Paralympic Games in 2020

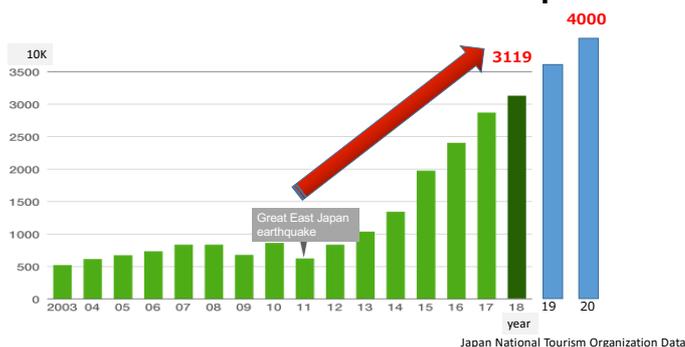
Ryo SASAKI

Department of Emergency Medicine and Critical Care  
National Center for Global Medicine (NCGM)

## Increasing International people by policy

- **Resident**  
Student, Technical intern, Worker health insurance (+)
- **Short-term stay**  
Tourist, Business Tourist insurance
- **Visit for medical service**  
Medical Tourism, Inbound medical health insurance (-)

## Annual number of visitors to Japan



## Number of International Patients by Ambulance

(Only new patient)



2017

2018

Number	1,165
total	8,984
rate	13.0%

number	1,201
total	8,687
rate	13.9%

Only 189 days



Games of the XXXII Olympiad 24<sup>th</sup> Jul ~9<sup>th</sup> Aug

33 different sports 17days

Tokyo 2020 Paralympic Games 25<sup>th</sup> Aug ~6<sup>th</sup> Sep

22 different sports 13days

Predict of visitors to Japan during the period

Special sports event

Increasing International people



About 200K~800K  
difficult to predict accurately !

## Past Olympic/Paralympic Games ?

2012 London 700K



2016 Rio 1.2M  
410K ( Only foreigner )

## Overseas travel and health risks

- 1 billion traveler by air every year
- 20-70% any health problems
- 1-5% medical service
- 0.01-0.1% emergency transport
- 1 /100K die

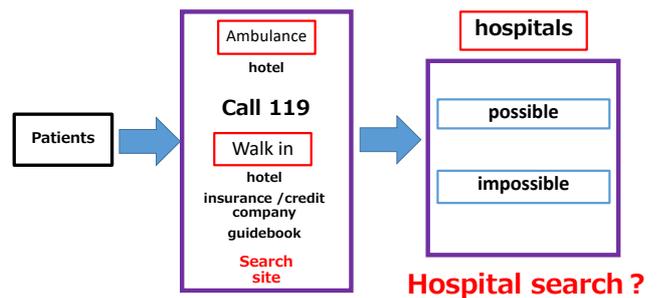
Health Advice and Immunizations for Travelers  
Edward T. Ryan, M.D., and Kevin C. Kain, M.D.  
N Engl J Med 2000; 342:1716-1725 June 8, 2000



## predict of medical demand The period (17days)

Medical service	200K~800K x 1~5%	2,000~40,000
Ambulance	200K~800K x 0.01~0.1%	20~800
Die	200K~800K x 1/100K	2~8
heatstroke	Infection	May increase ! ?

## Medical service of International Patients flow



## Hospital search site (JNTO) 観光庁

Japan National Tourism Organization 2016年~

Prefectures, 5 languages,  
Subjects, Credit card  
JMIP, Emergency possible  
Free wards



English, Chinese ( Traditional /Simplified ) , Hangul, Japanese

Easy search

## Hospital search site (JNTO) 観光庁

Japan National Tourism Organization

- ① 24hours/7days Emergency possible
- ② internal/surgical/pediatrics
- ③ compatible at least English

⇒ Prefectures selected

1608 / March 2019

Wide shallow



## Hospital search site (JMIP)



Japan Medical Service Accreditation for International Patients  
 2012年～ Ministry of Health, Labour and Welfare  
 medical institution accreditation system (3years)

search : 「 Prefectures 」 , 「 Subjects 」 , 「 names 」

Only Japanese

Diffiucult search

## Hospital search site (JMIP)



「Acceptable」 , 「service」 , 「management」 , 「organizational structure」 , 「improvement」

Evaluation based on 5 functional classifications

61 /May 2019

Each hospital is enough to International Patients  
 Core medical hospitals !!

## Hospital search site in Tokyo - Himawari -



対応できる外語種 外国語と対応可能なレベルを指定します。 [閉じる]

検索条件  AND  OR

対応言語

<input type="checkbox"/> 英語	<input type="checkbox"/> 広東語
<input type="checkbox"/> 北京語	<input type="checkbox"/> 韓国語
<input type="checkbox"/> ハンガール	<input type="checkbox"/> タイ語
<input type="checkbox"/> タイランド語	<input type="checkbox"/> シンガポール語
<input type="checkbox"/> ベトナム語	<input type="checkbox"/> ペンタゴン語
<input type="checkbox"/> フランス語	<input type="checkbox"/> 中国大陸語
<input type="checkbox"/> ドイツ語	<input type="checkbox"/> コリア語
<input type="checkbox"/> イタリア語	<input type="checkbox"/> スペイン語

対応レベル

- 業務に不自由することなく対応が可能
- 日常会話程度の会話力ではあるが対応が可能
- 会話の会話はいいが読みや筆談の難易度で対応が可能

1991～  
 website 2000～

- 16 languages
- 3 levels
- English, Chinese, Hangul (Automatic translation)

Awareness 15.4%  
 (n=1560 2016)

## Comparison of search system

	JNTO	JMIP	Himawari
start	2016～	2012～	2000～
Register number	1608	61	About 270
language	5 (Eng/Chi (T/S)/hang/JPN)	Only JPN	16
points	Wide shallow	Core hospital	Only Tokyo Awareness 15.4%
Search difficulty for visitors	◎	×	○

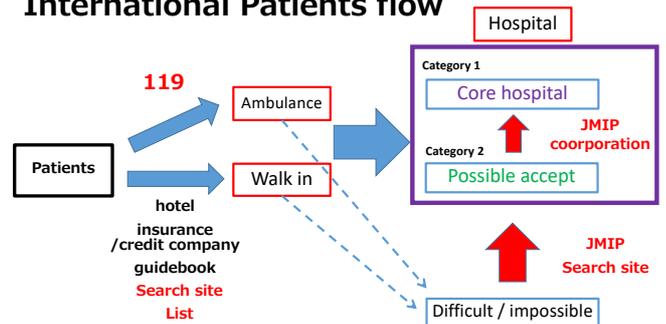


List Unification



Re-category  
 Category 1: Hospitalization for Emergency patients  
 Category 2: possible accept

## Medical service of International Patients flow



# E-Learning for field cast

# AC 2020 For Foreigners

The Japanese Society for Emergency Medicine (JSEM)

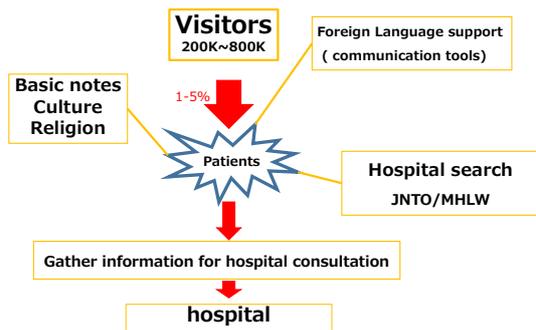
2020年東京オリンピック・パラリンピックに係る  
救急・災害医療体制を検討する学術連合体  
The Academic Consortium on Emergency Medical Service and Disaster Medical Response Plan  
during the Tokyo Olympic and Paralympic Games in 2020

## E-Learning Goals

- Basic notes
- Foreign Language support (communication tools)
- Hospital search
- Gather information for hospital consultation



## E-Learning Summary



## STD control



- Sexual health campaign
- Condom Free London : 500K, Rio: 4M
- PEP site several hundred

Currently there are no systems in Japan



## What is PEP ?

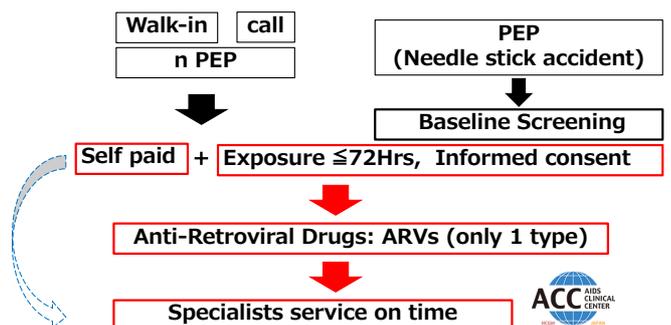


PEP stands for Post-Exposure Prophylaxis.

It is an emergency medicine that may protect you from becoming infected with HIV by starting antiretroviral drugs (ARVs) within 72 hours after being potentially exposed to HIV.

If you are prescribed PEP, you will need to take it once or twice daily for 28 days.

## PEP/nPEP Standard Protocol in NCGM holiday/night



## Summary

- Make hospital search systems and site known  
volunteer, hotel, insurance /credit / travel company  
All hospital
- Coordination and maintenance based on core hospital
- A system for STD

*Thank you for your attention*





## セッション9 東京オリンピック・パラリンピック開催時の医療体制と官民連携

東京大学大学院 医学系研究科 救急科学分野 教授 森村 尚登

**講師略歴:** 1986年に横浜市立大学医学部を卒業、日本医科大学付属病院や横浜市立大学医学部附属浦舟病院の救命救急センターを経て、1998年にフランス院外救急医療支援組織(SAMU)パリ本部へ留学。2010年に横浜市立大学大学院医学研究科救急医学初代教授、2016年に東京大学大学院医学系研究科救急科学の教授に就任。2020年東京オリンピック・パラリンピックに係る救急・災害医療体制を検討する学術連合体(コンソーシアム)合同委員会委員長。

マスギャザリングとは大きな集団が限定的な場所で、限定された期間に非常に多く集まるものである。疾患の発生数が増えるほか、ストレス・興奮・密度の高まり・テロリズム等の追加要素も考えなければならない。更にイベント参加者への医療に加え、“ペナンブラ(Penumbra)”と称される、イベントと関わりのない地元住民に対する通常の医療体制の維持も必要となる。

東京2020大会に向けては、2016年4月から26の学会が「2020年東京オリンピック・パラリンピックに係る救急・災害医療体制を検討する学術連合体(コンソーシアム、AC2020)」を形成し、それぞれの専門領域の知見を集めて行政に提言を行っている。ガイドラインやステートメント等はすべてウェブサイト(<http://2020ac.com/>)で無料で公開されており、各学会へのリンクもつけられている。ウェブサイトは専門家にとっての情報のプラットフォーム、一般の方にはポータルサイトとして活用されることを目指している。

例として、コンソーシアムは、災害対応のための組織横断的な、会場の内外を問わない大きな組織の創立を東京都に対して提案した。これらを受けて、東京都福祉保健局医療政策部の中に救急災害時の医療検討部会が作られた。他の提言としては、多数傷病者の発生を地域全体に知らせるようなコード名の設定、医療提供体制のリスク評価、そして多機関連携ができ有事の際には即時に合同本部になるようなシステムを開催中は常時つくっておくこと、が挙げられる。これらの点は今後議論される予定である。加えて、コンソーシアムは都内の医療体制整備の評価も行った。普段の業務量、医師の数やベッド数、会場周辺の環境や競技の開催時間、周辺までの駅の近さなどを組み込んでシミュレーションを行い、受診者数が増えた際にどれほどの備えが必要かを共有した。

またコンソーシアムは、組織委員会への働きとして、会場の中で働く人たち向けの教育のカリキュラムを作り、トリアージ・治療・搬送に関わる技能と知識に関するプログラムを提供した。職種別に必須知識のリストを決定し、テストイベントで妥当性を検証しつつ、プログラムを確定した。

マスギャザリングイベントでは医療に負荷がかかるが、その際に整備をすれば地域の医療の改善にもつながる。以上に挙げられたコンソーシアムの取り組みのように、想定される負荷に対して備えていくことが重要である。



東京大学大学院 医学系研究科 救急科学分野 森村 尚登 氏  
Professor MORIMURA Naoto, Department of Acute Medicine,  
Graduate School of Medicine, the University of Tokyo

## Session#9 Academic organization-local government partnerships of medical preparedness duringTokyo Olympic/Paralympic Games in 2020

**Presenter: Professor MORIMURA Naoto, Department of Acute Medicine, Graduate School of Medicine, the University of Tokyo**

**Biography:** Professor MORIMURA Naoto graduated in Faculty of Medicine from Yokohama City University in 1986 and, after doing medical, surgical and anaesthesia / ICU rotations trained in Emergency Medicine in Yokohama and Tokyo, and fellow of the public out-of-hospital emergency medical services in Paris (Service d'aide médicale urgente (SAMU) de Paris) in 1998. He is the former Professor and Chair of Department of Emergency Medicine, Graduate School of Medicine, Yokohama City University. He is now Professor and Chair of Department of Acute Medicine, Graduate School of Medicine at The University of Tokyo. He is also the chairperson of the joint committee of academic consortium of emergency and disaster medical preparedness for the Olympic/Paralympic Games in Tokyo 2020.

Mass gathering is defined as “Large crowds of participants and spectators who gather for the same purpose in the limited region for a certain period”. Mass gathering causes an increased demand for medical service due to the increased population but additional factors such as stress, excitement, crowd or terrorism must be considered. In addition to medical care for event participants, there will also be a need to maintain daily medical service for the local population, known as “penumbra”, which is not related to the event.

Towards Tokyo 2020, 26 academic societies formed the “Academic consortium of emergency and disaster medical preparedness for the Olympic/Paralympic Games in Tokyo 2020 (AC2020)” in April 2014 to aggregate their expertise and make proposals to the government All guidelines and statements are all available free of charge on the website (<http://2020ac.com/>). The website aims to function as a platform for related professional organizations and a portal site for the public.

For example, AC2020 proposed to the Tokyo Metropolitan Government the establishment of a large, cross-sectional organization for emergency/disaster response regardless of inside and outside the venue. In response to these proposals, Emergency Disaster Medical System Working Group for examining problems at the time of a large-scale event was established in the Department of Health Policy, Bureau of Health and Welfare in the Tokyo Metropolitan Government. Other recommendations include the establishment of “Code Brown” to notify the entire community of the occurrence of multiple injuries and illnesses, to perform a risk assessment of the medical service system, and the creation of a system that would allow for multi-agency coordination and the immediate establishment of a joint headquarter in the event of an emergency. multi-agency coordination system. These points will be discussed further in upcoming months. AC2020 also evaluated the medical system in Tokyo using a mass casualty incidence simulation model (G-PRISM: Geographical Prediction and Risk assessment for Mass Casualty Incident) incorporating such factors as the amount of work normally done, the number of doctors and beds, the environment around the venue, the time of the Games, and the proximity of the stations to the vicinity, to share the level of preparedness required when the number of patients increases.

AC2020 established an educational curriculum for those working within the venue and provided a program on the skills and knowledge involved in triage, treatment and patient transport. A list of essential knowledge for each job title was determined and the program was finalized while validating it at a test event.

It had a major impact on the education and training system.

Mass-gathering events place a burden on health care, but if developed towards those events, it will improve health care system in the region. It is important to be prepared for the expected load, as the consortium initiatives listed above.

**International Symposium on Mass Gathering Events and Public Health Preparedness**

Jan 17, 2020. Tokyo

Academic organization-local government  
partnerships of medical preparedness  
during Tokyo Olympic/Paralympic Games in 2020



The Academic Consortium on Emergency Medical Service and  
Disaster Medical Response Plan during the Tokyo Olympics and Paralympic  
Games in 2020



President of the Joint Committee

Department of Acute Medicine, Graduate School of Medicine



THE UNIVERSITY of TOKYO

Naoto Morimura MD, PhD

1

## What is mass gathering?

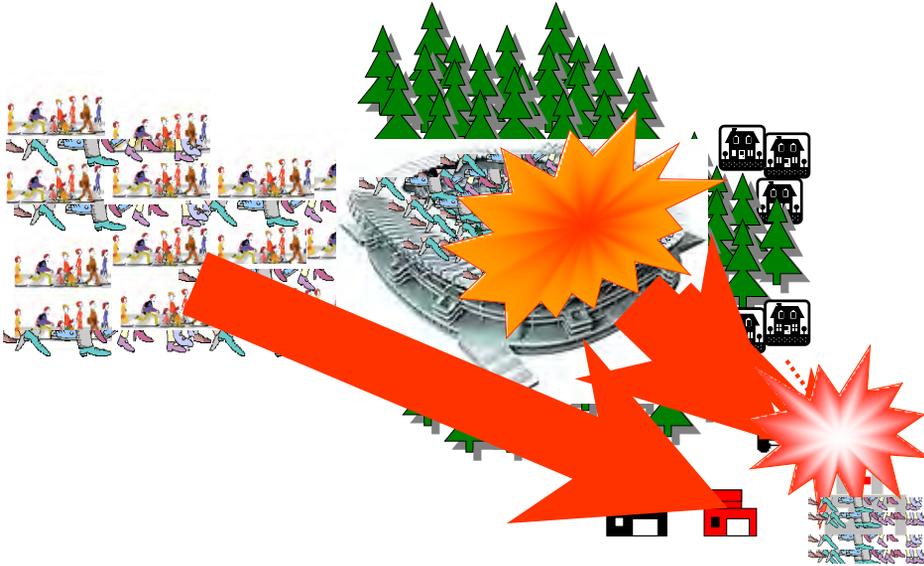
- “Large crowds of participants and spectators who gather for the same purpose in the limited region for a certain period”



Muslim pilgrims circumperambulate the Ka'aba during the Hajj in Makkah, Saudia Arabia, on Oct 17, 2013

2

## Sudden increase of population may result in higher incidence of illness/injury



3

### ORIGINAL RESEARCH

#### Analysis of Patient Load Data From the 2002 FIFA World Cup Korea/Japan

*Prehosp Disast Med* 2004;19(3):278–284.

Naoto Morimura, MD, PhD; Atsushi Katsumi, MD, PhD; Yuichi Koido, MD, PhD; Katsuhiko Sugimoto, MD, PhD; Akira Fuse, MD, PhD; Yasumi Asai, MD, PhD; Noboru Ishii MD, PhD; Toru Ishihara, MD, PhD; Chiho Fujii, MD, PhD; Mitsugi Sugiyama, MD, PhD; Hiroshi Henmi, MD, PhD; Yasuhiro Yamamoto, MD, PhD

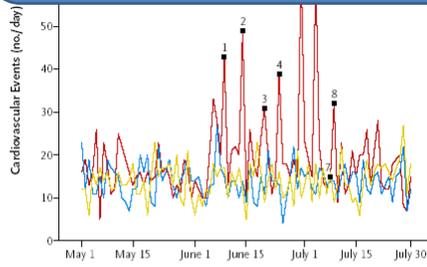
PPR	Regression Model	$r^2$	$r$	$p$ -value
PPR/ 1,000 spectators	$0.8903 + 0.9742 \times$ <b>access</b> $- 0.00002079$ $\times$ maximum capacity of stadium	0.663	0.815	<0.0001
In-PPR/ 1,000 spectators	$1.4850 - 0.00001486$ $\times$ maximum capacity of stadium	0.228	0.477	0.0067
Out-PPR/ 1,000 spectators	$-1.1814 + 0.0205 \times$ <b>temperature</b> $+$ $0.8237 \times$ <b>access</b>	0.777	0.882	<0.0001

Prehospital and Disaster Medicine © 2004 Morimura

4

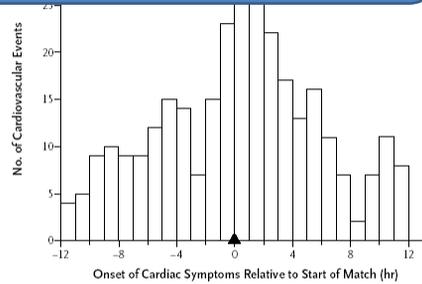
## Cardiovascular Events during World Cup Soccer

Related factors to occurrence of cardiovascular event in Germany during 2006 FIFA world cup games were the host country match and just after kickoff



**Figure 1.** Daily Cardiovascular Events in the Study Population from May 1 to July 31 in 2003, 2005, and 2006.

The FIFA World Cup 2006 in Germany started on June 9, 2006, and ended on July 9, 2006. The 2006 World Cup matches with German participation are indicated by numbers 1 through 7: match 1, Germany versus Costa Rica; match 2, Germany versus Poland; match 3, Germany versus Ecuador; match 4, Germany versus Sweden; match 5, Germany versus Argentina; match 6, Germany versus Italy; and match 7, Germany versus Portugal (for third-place standing). Match 8 was the final match, Italy versus France.



**Figure 2.** Daily Cardiovascular Events According to the Time of Onset of Symptoms before or after the Start of the Match.

The number of events was summed for all seven matches with German participation. The start of the match is represented by the black triangle.

5



### Medical demand increases during mass gathering

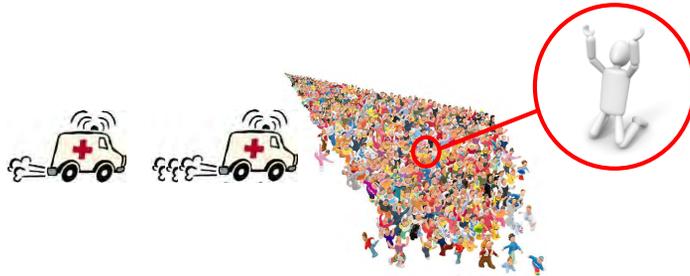
- Increased daily emergency demand
  - Because of a temporary population increase in the area ...
    - **Infectious/digestive/food-related diseases**, etc.
- Difficult access to the venue may cause
  - **Trauma, heat stroke, fatigue**, etc.
- An exciting event may relate to
  - **ACS, stroke, trauma**, etc.
- Bad weather conditions may increase
  - **Heat stroke, hypothermia, respiratory complications**, etc.
- Alcohol served event ...
  - **Trauma, acute alcohol poisoning**, etc.
- Possibility of Mass Casualty Incident (MCI)
  - **Crowd avalanches** caused by temporary population increase
  - **Terrorism** related to high interest and international affairs

6



## Provision of emergency medical care may be delayed during mass gathering

- **Emergency access** to the patient at a mass gathering may **be delayed due to restricted access** by mass gathering itself.



9

To whom should we prepare for medical support during mass gatherings?

1. Athletes, VIP,,,,
2. Spectators
3. Citizen participants
- 4. Penumbra**



10

## Penumbra One of components of Mass gatherings

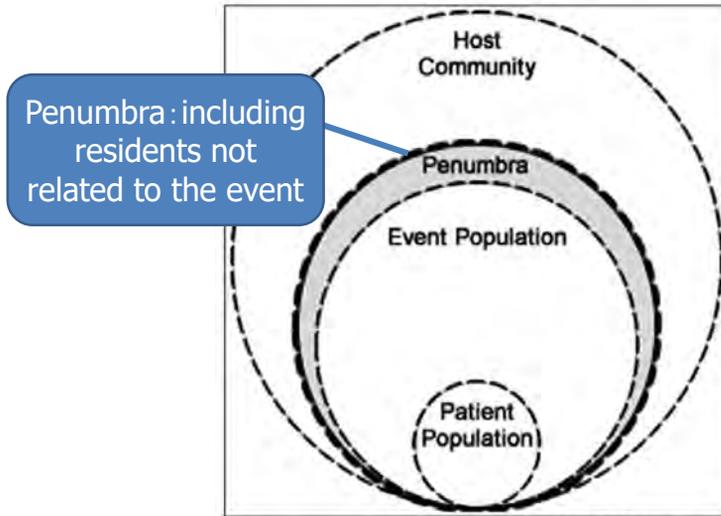


Figure 2. Populations of Interest at a Mass Gathering Event

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### Provision of emergency medical care may be delayed during mass gathering

- Restricted access due to mass gathering may delay emergency medical services for **citizens not associated with the event** in the host area

ACS and OHCA mortality in the region was higher during large marathons than when it was not.

↓

Patients are local residents and non-event participants. Tournament courses and group formation hinder access to optimal hospitals.

↓

Poor outcome was due to a delay of definite treatment.

N Engl J Med 2017;376:1441-50.  
DOI: 10.1056/NEJMs1614073



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## Broader definition of mass gatherings

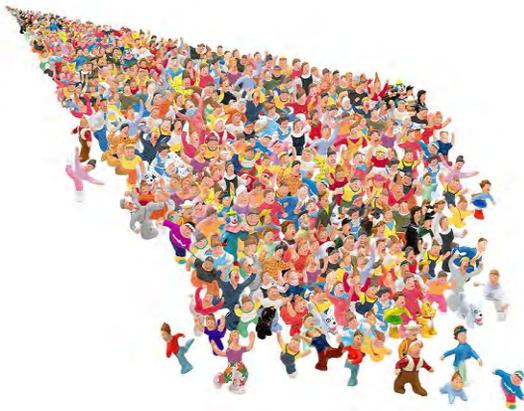
- **Potential for a delayed response to emergencies** because of limited access or other features of the environment or location
- Non-traditional mass gatherings
  - Metropolitan traffic system (subway/train)
  - Large shopping complexes
  - Airport
  - Cruise ships
  - Public demonstrations.....

(Arbon P, 2004)



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**Mass gathering will be added to  
daily urban mass gathering !!!**



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Incident at pedestrian bridge during Akashi fireworks



July 20, 2001

Dead: 11 (9 < 10 yrs, 2 >=70 yrs )  
Injured: 247



Boston Marathon Bomb terrorism



April 15, 2014. Dead; 3, Injured; 264

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## Role of regional emergency medical service system at a mass gathering

- Maintain a **daily** emergency medical service system
- Appropriate medical response for patients at a mass gathering
  - Medical support **at the event venue**
  - Medical support **in the surrounding area**, so-called last mile, leading to the event venue
- Responding to **MCI**



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## 2020 Tokyo Olympic Paralympic Games



- Opening dates
  - Olympic
    - Games of the XXXII Olympiad
    - 2020.7.24-8.9
    - 33 competitions
  - Paralympic
    - Tokyo 2020 Paralympic Games
    - 2020.8.25-9.6
    - 22 competitions

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### How many people expect to gather at the 2020 in Tokyo?

- Tickets: Olympic
  - domestic: 6 million
  - **foreign: 1.8 million**
    - **Predicted No. of tourists: 0.6 million ?**
- Predicted No. of foreign visitors
  - 0.92 million ?
- Term of session: Olympic
  - 17 days
- The predicted **total** number of visitors
  - **15,640,000 ?**
- Daytime population of Tokyo
  - **15,580,000**

We should prepare by adding the number of **domestic travelers** to the number of foreign tourists...

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2020ac.com/index\_e.html

Guidelines, manuals, and recommendations uploaded to the web

 Click here for Documents, proposals, and references from the Consortium 

 **What's New**

Nov.24.2019. The medical staff training for the athletes in the venue has been started by the program created by the consortium.  
 (Kyodo News) <https://a.msn.com/r/2/BBXeZ0T?m=ja-jp&referrerID=InAppShare>  
 (NEWS24 NIPPON TV) <http://www.news24.jp/articles/2019/11/24/07550065.html>  
 (NEWS tv asahi) [https://news.tv-asahi.co.jp/news\\_society/articles/000169987.html](https://news.tv-asahi.co.jp/news_society/articles/000169987.html)  
 (m3.com) <https://www.m3.com/open/iryolshin/article/712674/>

Oct.07.2019. The Annual Meeting of the Japanese Association for Acute Medicine had a Committee organized, panel discussion in "Activities and issues for the Academic Consortium on Emergency Medical Service and Disaster Medical Response Plan during the Tokyo Olympic and Paralympic Games in 2020".

Oct.07.2019. The Annual Meeting of the Japanese Association for Acute Medicine had a symposium session in "Emergency and disaster medical system for international mass gatherings events".

Sep.12.2019. [Japanese Association for Acute Medicine] Committee visit report on heat stroke and heatstroke.

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## Aim of AC2020 Web Page

**Platform**

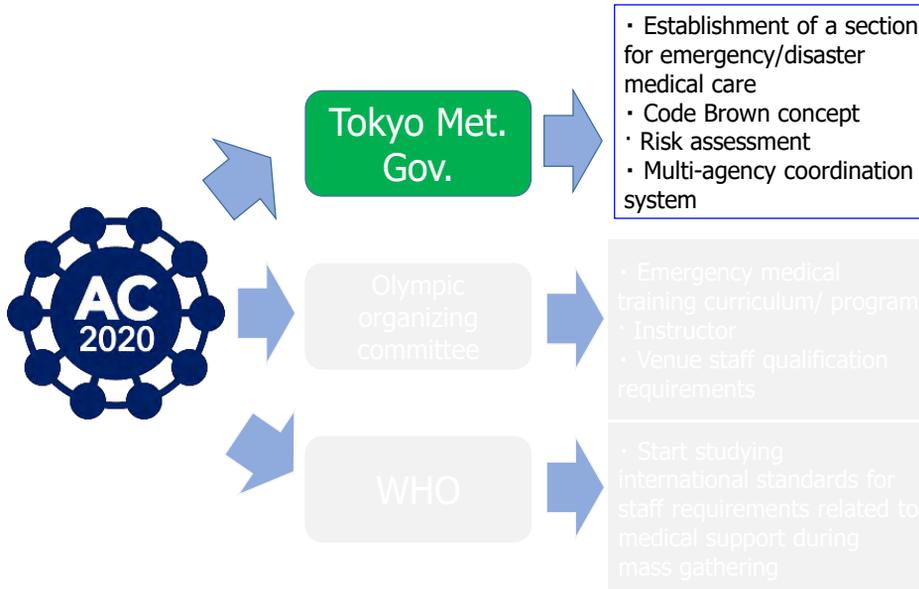


**Portal site**



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# What AC2020 has brought to...



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## Statements

**2020年東京オリンピック・パラリンピックに関する 救急・災害医療体制を検討する学術連合体**  
The Academic Consortium on Emergency Medical Service and Disaster Health Care for the Tokyo Olympic and Paralympic Games in 2020

2017年11月3日

『東京都が主催する大規模イベントにおける 医療・救護計画ガイドライン (平成21年4月 東京都福祉保健局)』に基づき、「2020年東京オリンピック・パラリンピック」に際し、**救急・災害医療体制を検討する学術連合体**から以下の提言を提出する。

- オリンピック・パラリンピック開催中の会場（競技会場）的でない多数集客発生事業（MCI）への救急医療対応を円滑に効率よく実施するスタッフである会場責任者とは別に会場内医療責任者（Venue VMO）を配置することが望まれる。また、開催中は、MCIが実際に発生した場合として機能する「迅速機関連携センター（仮称）」の用に強固な通信情報システムを構築することが求められる。
- 近年は医療機関もテロのターゲットになる可能性があることから、医療機関のセキュリティの強化が必要である。
- 既存のシステムを活用した通信情報システムの強化と、特に多数集客発生時、コード運用に係る運用内容とその周知徹底が必要である。
- 医療リスクの評価を徹底したうえで対応策を策定し、その有効性を検証したうえで、本大会に臨む必要がある。

平成30年4月

大規模イベントの医療・救護体制における 多機関連携センターの必要性についての提言

平成30年4月

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## Emergency Disaster Medical System Working Group for examining problems at the time of a large-scale event

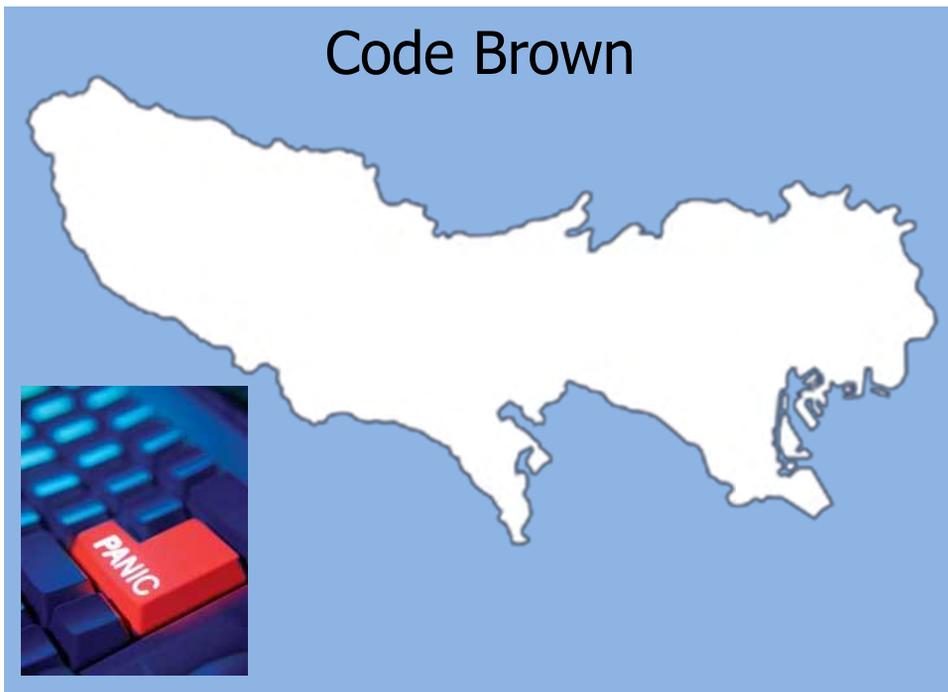
Department of Health Policy, Bureau of health and welfare, Tokyo  
Metropolitan Government since Dec.13, 2018

### • Task

- Ensuring a daily emergency medical service system
- Support for a medical systems of large-scale events
- Responding to contingency



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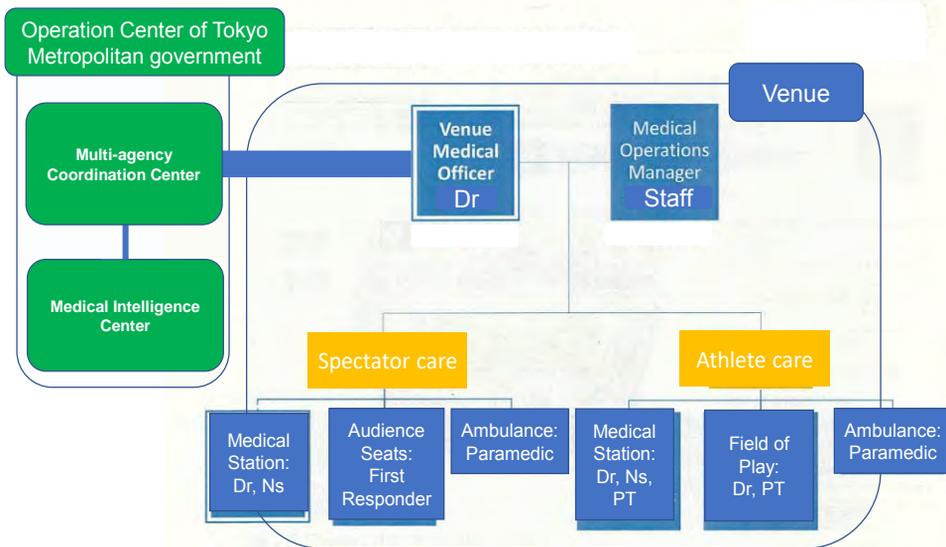
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# Multi-Agency Coordination System during the Boston Marathon



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Multi-organization collaboration diagram of medical service system within and outside venue: **under consideration**



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## Medical Risks identified by AC2020: Site

- competition venues and venue-related facilities (Athlete village, etc.)
- last mile
- live site, public viewing
- other



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## Medical Risks identified by AC2020: Cause

- Population increase in venue and surrounding area related
  - **Impact on daily emergency medical system**
    - Increase of #7119·119 usage
    - Ambulance usage
    - Hospitals burden
  - **Impact on disaster medical system at the time of assumed natural disaster**
    - Earthquake, flood
- Weather condition related
  - **heatstroke**
  - Lightning strike
- Increase of tourists related
  - Impact on daily emergency medical system
    - Visiting foreigners: communication, religion, insurance, repatriation
    - Infection disease
- High profile event related
  - **Multisite Mass Casualty Incident caused by terrorism**
    - Explosion, gunshot wound, special disaster, cyber



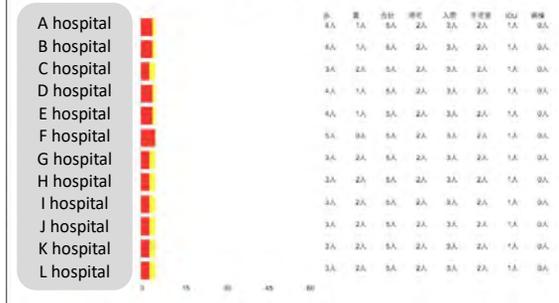
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**G**eographical  
**P**rediction and  
**R**isk assessment for  
**M**ass Casualty Incident



MCI simulation model: 300 simulated patients  
Number of ambulance transported red and yellow categorized patients within 60 min after incident



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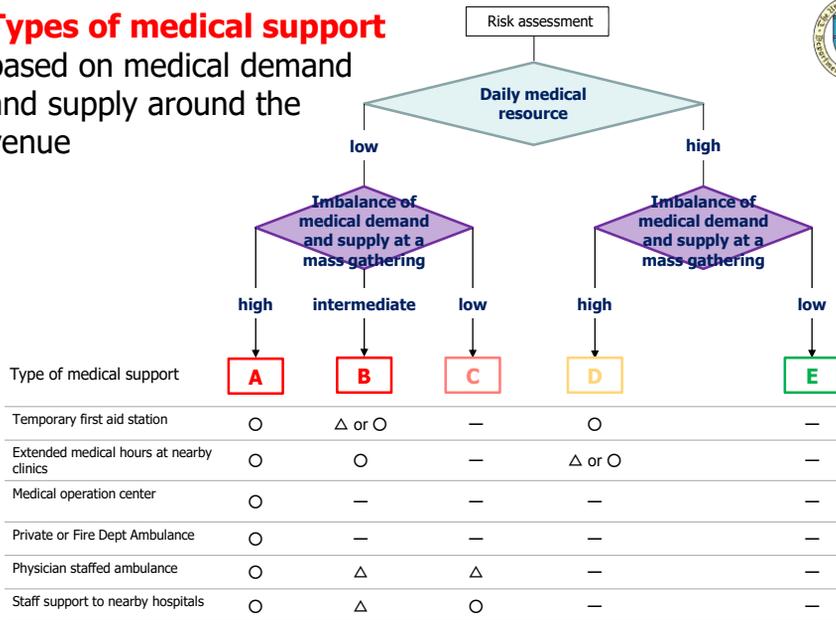
List of comprehensive risk assessment indicators



	indicator	Risk High	Risk Intermediate	Risk Low	Category
MCI risk	a Expected number of hsp of 60 min transport from scene	<3 hsp		≥3 hsp	
	b Ambulance response time for simulated serious cases	≥15 min		<15 min	
Daily medical resource	R Total T-Score	<153		≥153	
MG risk	d Venue? Last mile? Public viewing or live site?				
	e Period, daytime and/or nighttime				
	f Inside or outside, boundary or not				
	g Expected number of spectators				
	h Environment of last mile: distance from station, roof, width of road				
	i Expected number of patient presentation	≥51	21 - 50	≤20	
	A Degree of imbalance between patient demand and regional medical resource	≤0.10	0.11	≥0.12	

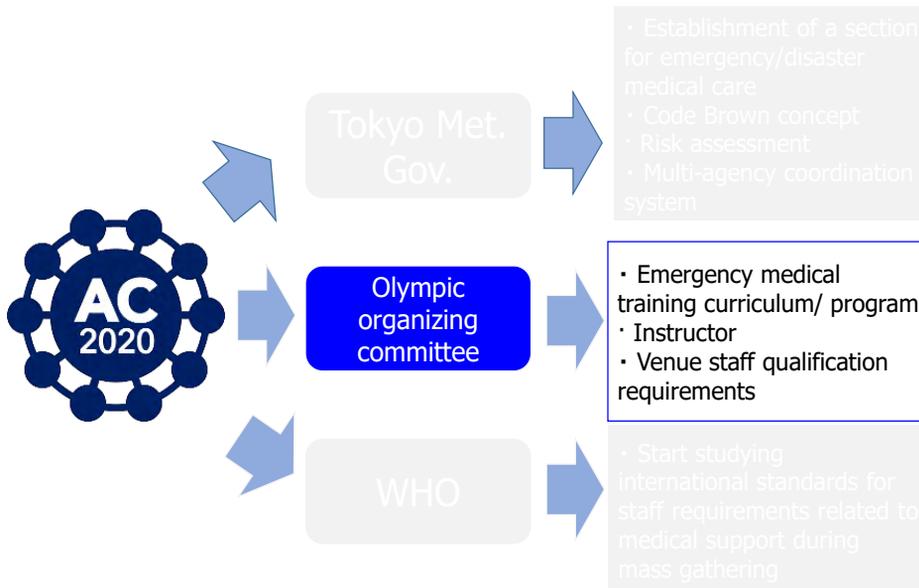
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**Types of medical support**  
based on medical demand  
and supply around the  
venue



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What AC2020 has brought to...



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## Manual and guideline of Burn, Penetrating/Explosive injury, Sudden Cardiac Arrest

平成 29 年度厚生労働省行政評価局調査事業(第五分科科学技術研究事業)  
2020 年東京オリンピック・パラリンピック競技大会に  
向けての救急・災害医療体制の構築に関する研究  
(研究代表者: 橋岡寿行)

### 銃創・爆傷患者診療指針

**提言「スポーツ現場における  
心臓突然死をゼロに」**  
— 日本循環器学会 日本 AED 財団 —

**重症熱傷診療に関する現状調査  
と  
熱傷初期診療に役立つ教育資料の開発**

一般社団法人 **日本熱傷学会**

平成 30 年(2018 年)3 月

集中治療室(ICU)のための  
災害時対応と準備についてのガイドランス  
第 1 版

日本集中治療学会 危機管理委員会  
2018 年 6 月



2020 年東京オリンピック・パラリンピックにおける  
看護員の対応ガイドライン

2019 年 2 月

2020 年東京オリンピック・パラリンピックに係る救急・災害医療体制を模索する事後調査  
看護アカデミーグループ

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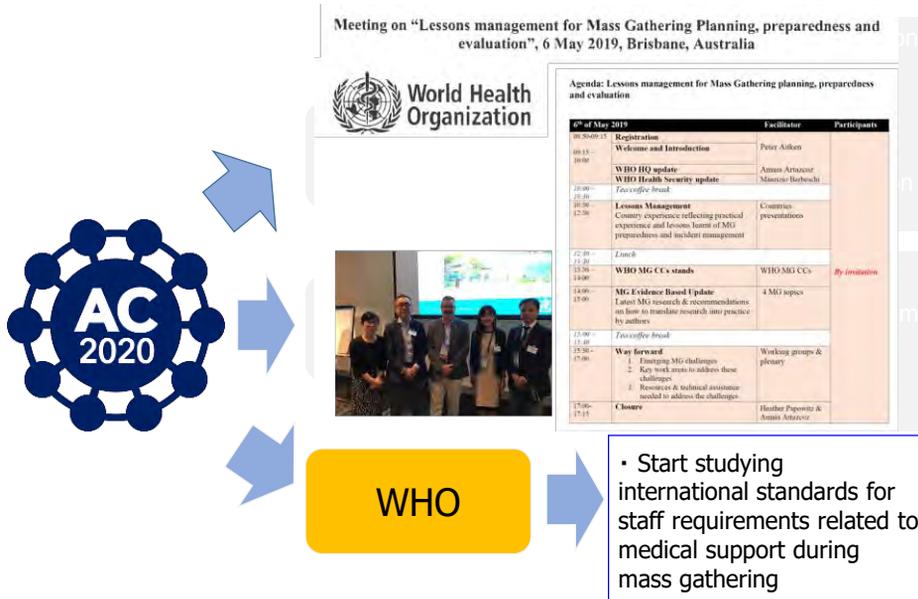


## Medical staff training curriculum

Title	Target of attendance			E-module via website Time required 2.5-3 hrs	Modular skills training Time required 4 hrs
	DR	NS	Other		
<b>General issues</b>					
Medical control and regional EMS system	◎	◎	○	☑	
Medicine at mass gathering	◎	◎	○	☑	
Medical care points for visiting foreigners	◎	◎	○	☑	
Control of infectious disease	◎	◎	○	☑	
<b>Common issues</b>					
Resuscitation: BLS/AED	◎	◎	◎	☑	
Resuscitation: ALS	◎	◎	○	☑	
Initial approach for trauma	◎	◎	○	☑	
Neck and head injury	◎	◎	◎	☑	
First-aid, touniquet	◎	◎	◎	☑	
Triage for MCI, radio communication, record	◎	◎	○	☑	
<b>Special issues</b>					
Heat stroke medical treatment (ice pool etc)	◎	◎	○	☑	
Gun wound / blast injury	◎	◎	○	☑	
Toxidrome	◎	◎	○	☑	
Lightning strike	◎	◎	○	☑	

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## What AC2020 has brought to...



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## Conclusion

- Mass gathering has the potential to increase medical demand and delay emergency medical services.
- State mass gathering as "**Scheduled disaster or MCI**" and formulate a response plan.
- Developing a medical support plan at the time of mass gathering always **leads to improvement** of the quality of medical care in the region.

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