

# School Action against Pandemic (H1N1) 2009 and its Lessons in Japan: From the standpoint of a school doctor

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## Abstract

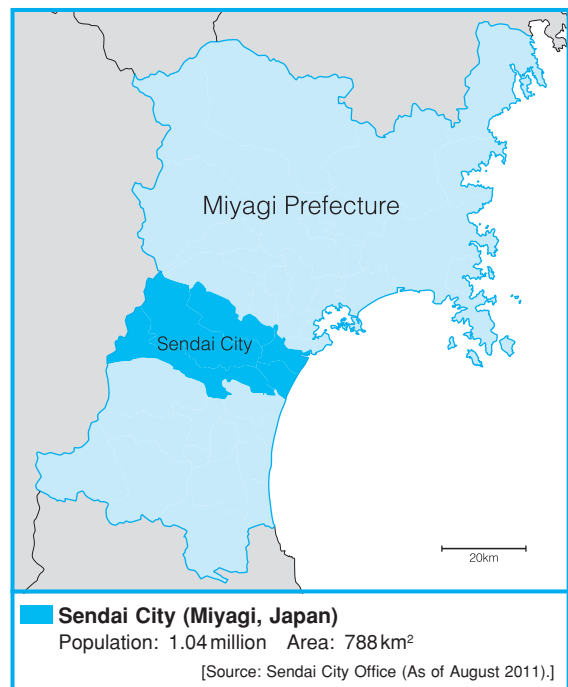
In the fall of 2009, Sendai City was hit by the first wave of novel influenza (A/H1N1), mainly affecting elementary and junior high school students. The Sendai Medical Association immediately set up the system for full cooperation with the Sendai City Board of Education. A trust relationship had been established between the Board of Education and the Medical Association through collaboration and actions towards the common cause of “protecting the health of children.” During this epidemic, both organizations took measures against novel influenza (A/H1N1) sharing information and mutually respecting their different roles and positions. This helped schools and guardians to react calmly without confusion.

**Key words** Trust relationship, Collaboration

## Introduction

The Sendai Medical Association (hereinafter the Association) and the Sendai City Board of Education (the Board of Education) have long been collaborating with each other and developing a trust relationship, which enables the frank exchange of opinions. This is considered the main factor behind the success of our actions against novel influenza (A/H1N1) at schools.

The first wave of novel influenza (A/H1N1) in 2009 mainly hit elementary (ages 6–12) and junior high (ages 12–15) school students. In response, the Association made full preparations for cooperating with the Board of Education so



that schools and guardians could react calmly without confusion. I re-examine here the events of last year and the lessons we learned for future pandemic responses both from the perspectives

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of president of the Association and of a school doctor.

### **Outbreak of Novel Influenza (A/H1N1)**

The news of a novel influenza (A/H1N1) breakout in Mexico shook the world in April 2009. In May, the Japanese government announced the strategy that suspected patients should be examined at the fever outpatient clinics of designated hospitals (e.g., one hospital in Sendai City with a population of one million) and hospitalized once diagnosis is confirmed. This strategy was the same as that in the response plan to combat the highly pathogenic avian influenza H5N1. In contrast, the Association considered that first-line clinics would be able to accept patients, based on the analysis of the newest detailed reports of 642 cases in the US. Once an epidemic begins, fever outpatient clinics of large hospitals will become overcrowded and patients will visit their family doctors. With this expectation in mind, we held a series of talks with city authorities and decided to treat novel influenza (A/H1N1) at the more than 300 clinics in the city.

### **Collaboration between the Board of Education and the Association**

In May 2009 after the end of consecutive holidays, the Chief of the Health Education Section and the Educational Supervisor from the Board of Education called me, the then Vice-president of the Association and the Chairman of Sendai School Health Association, and the Manager (a director) of the School Health Department of the Association and asked for guidance and advice concerning the measures to combat novel influenza (A/H1N1) at schools. We, the Association, promised full cooperation and asked for arrangements to facilitate close collaboration between school personnel (school principals, nurse teachers) and school doctors.

From the beginning, the Board of Education kept the Association well-informed on the notifications from the Ministry of Education, Culture, Sports, Science and Technology and the official notices to school principals. This helped us to understand the development of situations.

Early in June, we were asked whether or not it was appropriate to hold the Junior High School Athletic Meet. Because no epidemic had occurred

in the area, we answered that the athletic meet could be held provided that the health condition of students was monitored focusing on the detection of fever and students were instructed to practice gargling and hand washing. The event was held successfully.

At the end of July, novel influenza (A/H1N1) started to occur in the city among the college (about ages 18–22) and high school (ages 15–18) students who visited the metropolitan area to attend competitions and training camps, but this outbreak subsided soon. In late August, it was confirmed that students at over 20 schools in the city had contracted novel influenza (A/H1N1) during the summer holidays. Because expansion of infection after the summer holidays was anticipated, the Board of Education asked us to show the criterion for classroom closure.

When school doctors are asked by school authorities to advise on the need for classroom closure, they need a unified criterion. The Board of Education defined the criterion for classroom closure as “when the percentage of absentees diagnosed by physicians as having or suspected of having novel influenza (A/H1N1) has exceeded 15%.” The Association published this decision on “Novel Influenza (A/H1N1) News” to make it known to the members. At the same time, because schools had to hear the opinion of school doctors in considering classroom closure, the Board of Education ensured that this criteria was notified from school principals to school doctors.

### **After the Epidemic Began**

At the end of October, a novel influenza (A/H1N1) alert was issued in Sendai City when the number of patients reported per sentinel medical institution per week exceeded the provisional alert level of 30 and reached 50. By November 5, more than 160 of the 198 schools in the city had enforced classroom closure and grade closure, including temporary school closure at 2 schools.

As the number of students with novel influenza (A/H1N1) increased rapidly at the junior high school where I served as the school doctor, the school principal asked me for advice concerning classroom closure and infection control measures almost every day over the telephone. The situations at other schools were also similar. The city’s Superintendent of Education later acknowledged that this experience demonstrated

how it was important for school principals and nurse teachers to collaborate with school doctors.

However, the rapid expansion of novel influenza (A/H1N1) caused some confusion at schools and different actions were sometimes taken at different schools. In response, the Board of Education issued “Q & A on the Response to Novel Influenza (A/H1N1).” The Association was also asked to give advice on the development of this document. For example, we gave concrete answers to the questions raised by first-line school personnel, such as:

(Q) What official procedures should be followed when the patients with new influenza have exceeded the criterion and classroom closure needs to be enforced?

(Q) Once classroom closure has been removed, is it necessary to enforce classroom closure again when the number of patients exceeds the criterion again?

### **Vaccination of Students Preparing for Entrance Examinations**

In late November, Miyagi Prefecture decided to provide vaccination against novel influenza (A/H1N1) to 3rd year junior high school students and 3rd year high school students to protect the students preparing for entrance examinations. The Board of Education promptly explained the plan to the Association, which then discussed the matter and decided to perform this vaccination at the clinics of school doctors as a rule. Vaccination was conducted in late December smoothly with the cooperation of school doctors in the city.

### **Evaluation of Responses**

During a meeting with the staff from the Board of Education, we reached the conclusion that the responses were generally successful. The reasons may be summarized as follows.

- (1) We could act towards the common purpose of “protecting the health of children.”
- (2) There was a long-standing trust relationship between the Board of Education and the

Association. Meetings to foster closer relationships among the key members from both sides have been held yearly since several years ago.

- (3) The staff from the Board of Education did a great deal of footwork and maintained a face-to-face relationship.
- (4) The Board of Education respected the opinions of medical professionals.
- (5) The actions and the criterion for classroom closure were worked out cooperatively respecting the roles and positions of the school side. The Association gave advice when the Board of Education prepared the questionnaire for schools.
- (6) Information was shared between the two parties.
- (7) School doctors could provide appropriate advice and guidance to schools because they were well-informed on infection control measures through the Novel Influenza (A/H1N1) Workshop held in May 2009 by the Association and “Novel Influenza (A/H1N1) News” issued by the Infection Control Committee of the Association.

### **Conclusion**

There are good reasons to believe that the efforts at schools could be further enhanced, if “Q & A on the Response to Novel Influenza (A/H1N1)” had been prepared before the onset of epidemic. On the other hand, this Q & A brochure became an effective practical tool because the actual experience in the epidemic had clarified various problems. It should be of great assistance to those people who may have to combat a possible second wave of pandemic, and enable schools to react calmly.

The trust relationship between the Board of Education and the Association has been built on the high motivation of the people from both sides and a sense of comradeship among individual members. We should try to maintain this trust relationship even after the staff is replaced with new people.