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Implementing Equitable and Efficient Measles Entry Screening to Reduce Exposure Risk

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Background

Measles facts and stats:

- It is a **highly contagious** pathogen and poses significant risk to healthcare patients and the community when not mitigated appropriately.
- When a patient with measles enters a healthcare facility, all others in that area who are not wearing sufficient respiratory protection are considered exposed.
- Transmission may occur for up to two hours after a patient has left a space, and **up to 90% of susceptible people who are exposed to the virus will develop measles**[1].

This poses a threat for spread in the hospital and community. Our objective is to create an **equitable screening process for measles exposure and symptoms prior to facility entry** without requiring extra staff.

Methods

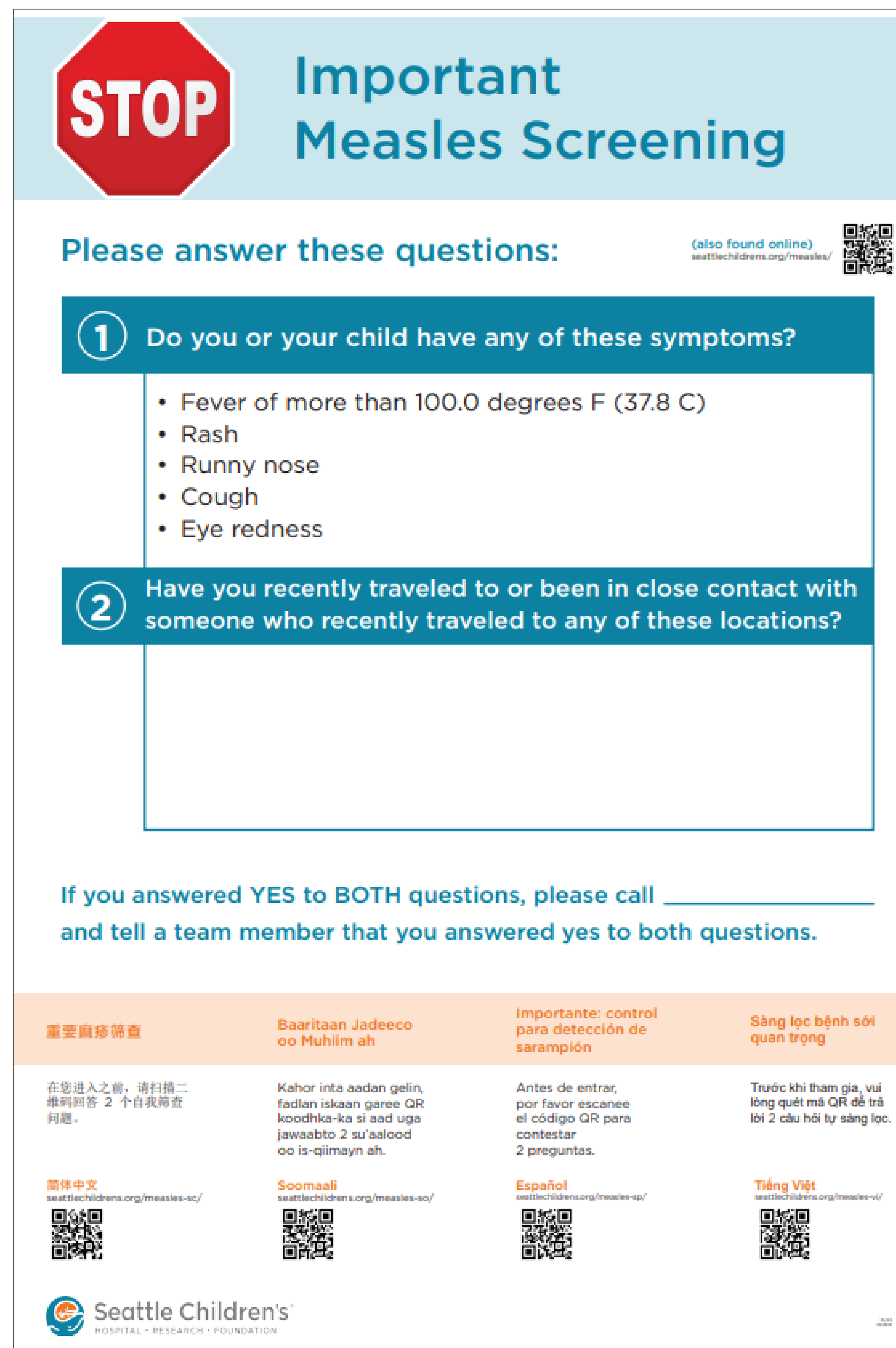
Due to a measles outbreak in the Seattle area in 2019, Seattle Children's posted signs to screen patients for measles exposure. The signs were:

- Written in English only.
- Posted outside all hospital entrances.
- Asked patients to self-screen for relevant symptoms and travel prior to entering the building.

After the outbreak concluded, the Infection Prevention, Special Pathogens Program, and Patient Family Communications teams collaboratively implemented Plan-Do-Study-Act (PDSA) cycles to review screening signs to ensure they **effectively and equitably communicated the need for patients, families, and visitors entering our facilities to self-screen for measles infection and exposure risk.**

[1] *For healthcare professionals - diagnosing and treating measles* (2020) *Centers for Disease Control and Prevention*. Available at: https://www.cdc.gov/measles/hcp/index.html (Accessed: 10 November 2023).

Figure 1. Measles Self-Screening Poster



Results

- Three iterations of signs to strengthen measles response.
- Incorporated **equity and inclusion principles.**
- Buy-in from **operational teams** to support phone calls from patients.

The final sign (see Figure 1) included:

- Content in English with QR codes to information translated into the top four languages other than English (**Simplified Chinese** (Mandarin and Cantonese combined), **Somali**, **Spanish**, and **Vietnamese**).
- Featured content including a list of **measles symptoms.**
- Space to include **locations** where an exposure had occurred.
- **Instructions** on what to do if a patient/family member screened positive
- Postings at every hospital and regional location entrance during measles outbreaks (internationally, nationally, and/or locally).
- Plans for internal teams to respond to positive self-screenings via a phone call.

Conclusions

We provide a **replicable framework** for screening potential measles patients before they enter a healthcare facility. The sign and processes supporting it are **equitable, accessible, and sustainable**. The plan offers an efficient way to identify potential measles cases before the person enters the healthcare setting and exposes others to the virus, strengthening the **identify-isolate-inform** response. This framework can be **adapted for other pathogens** and requires a small amount of resource to implement and maintain.

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