



## Pandemic influenza A/H1N1 vaccination uptake among health care workers in Qatar: Motivators and barriers<sup>☆</sup>

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### ABSTRACT

Influenza A/H1N1 new vaccine helps control disease spread. Cross-sectional survey was conducted at PHC & Emergency Departments in Qatar to determine influenza A/H1N1 vaccination rate among HCWs and associated factors, 523 HCWs were enrolled. The study showed that 13.4% HCWs received vaccination. Feeling protected strongly influenced vaccination decision (OR = 14.5). Uncertainty about vaccine efficacy and fear of side effects strongly influenced decision to reject the vaccine (OR = 0.3 and 0.2 respectively). Vaccination coverage was very low. The most common barriers were uncertainty about vaccine efficacy and fear of side effects. Health authorities should build message highlighting how the benefit of vaccination outweighs risk.

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### 1. Introduction

Influenza is a major health problem, and a significant clinical and socioeconomic burden worldwide [1]. Influenza virus type A that is frequently subjected to antigenic and genetic variation that gave origin to novel subtypes of the virus which lead to several pandemics during the last century [2]. In May 2009, a new influenza A/H1N1 infected cases were reported in Mexico [3], and the WHO declared the disease to be pandemic on June 2009 [4]. As of 31 January 2010, worldwide more than 209 countries and overseas territories or communities have reported laboratory-confirmed cases of pandemic influenza A/H1N1. In addition, at least 15,174 deaths related to this infection have been recorded [5].

One of the main concerns related to the current pandemic H1N1 influenza 2009 is the overwhelming burden on medical structures and resources that it poses and the consequent negative impact

on mortality and morbidity. This situation puts healthcare workers (HCWs) in the unusual position of being both the main actors and one of the main targets of the prevention strategies against the pandemic H1N1 influenza 2009, and considering also their usual unavoidable risk of being an important vector for transmission [6,7].

The WHO and other international agencies identified vaccination as the most effective intervention in reducing pandemic influenza A/H1N1 morbidity and mortality [8]; and advised all countries to vaccinate their health care workers against A/H1N1 as a first priority in order to protect the vital health infrastructure and patients in addition, their behavior and attitude might be reflected on the public that look for advice from HCWs [6,7,9].

However, Seasonal influenza vaccination coverage among health care workers historically has consistently been low [10–13]. Efforts to vaccinate health care workers began when 2009 H1N1 vaccine first became available, but according to the behavioral risk factor surveillance system (BRFSS) survey, during December 2009, only 22% of health care workers reported having been vaccinated [14]. Unvaccinated health care workers who become infected risk transmitting the virus to their family members or patients, who often are at high risk for severe influenza. The current high percentage of unvaccinated health care workers highlights the need to strengthen measures to improve their influenza vaccination coverage [14].

It is a well-established fact that risk perceptions influence influenza vaccine uptake [15,16], and that there is a need to consider and understand factors underlying people's decision about

<sup>☆</sup> This is the first comprehensive study on pandemic influenza A/H1N1 vaccination among HCWs conducted in Qatar and to the best of our knowledge one of the first studies that assess personal use of pandemic influenza vaccination in HMC and PHC as well as physicians and nurses.

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