

Effective Strategies to Increase Influenza Vaccination of Healthcare Workers in Saudi Arabia

Bassel Molaeb, MPH, CIC, FAPIC

Infection Control Director

Al-Moosa Specialist Hospital, Al-Ahsa, KSA

Nothing to disclose

Overview: AL-Moosa Specialist Hospital

Al-Ahsa, Saudi Arabia

- 200 bed tertiary care hospital
- 66 ICU beds (Adult + Pediatrics)
- >1800 staff
- Accredited by: Joint Commission International & Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI)
- Planetree designation

Website: www.almoosahospital.org; Facebook: @almoosahospital1; Twitter: @almoosahospital



Background

- Influenza Vaccination is recommended by WHO and Saudi Ministry of Health for healthcare workers (HCWs), however, coverage has been historically low:

Influenza Vaccination among Healthcare Personnel		
2014–15 season	2015-16 season	Annual target goal
77.3%	79.0%	90%

Source: Centers for Disease Control and Prevention, September 2016

- Influenza vaccination is the most effective method for reducing the risk of flu and absenteeism in HCWs as well as the risk of respiratory illness and mortality in their patients.
- This presentation discusses the most effective strategies applied to raise influenza vaccine coverage (IVC) rates in HCWs and the effect on sick leave (SL) rate due to influenza-like illnesses (ILI) during three flu seasons.

Material/Methods

- We retrospectively reviewed and analyzed **IVC rates** during the flu seasons from October 2014 to February 2017 through which several interventions were progressively implemented

2014-2015 season

2015-2016 season

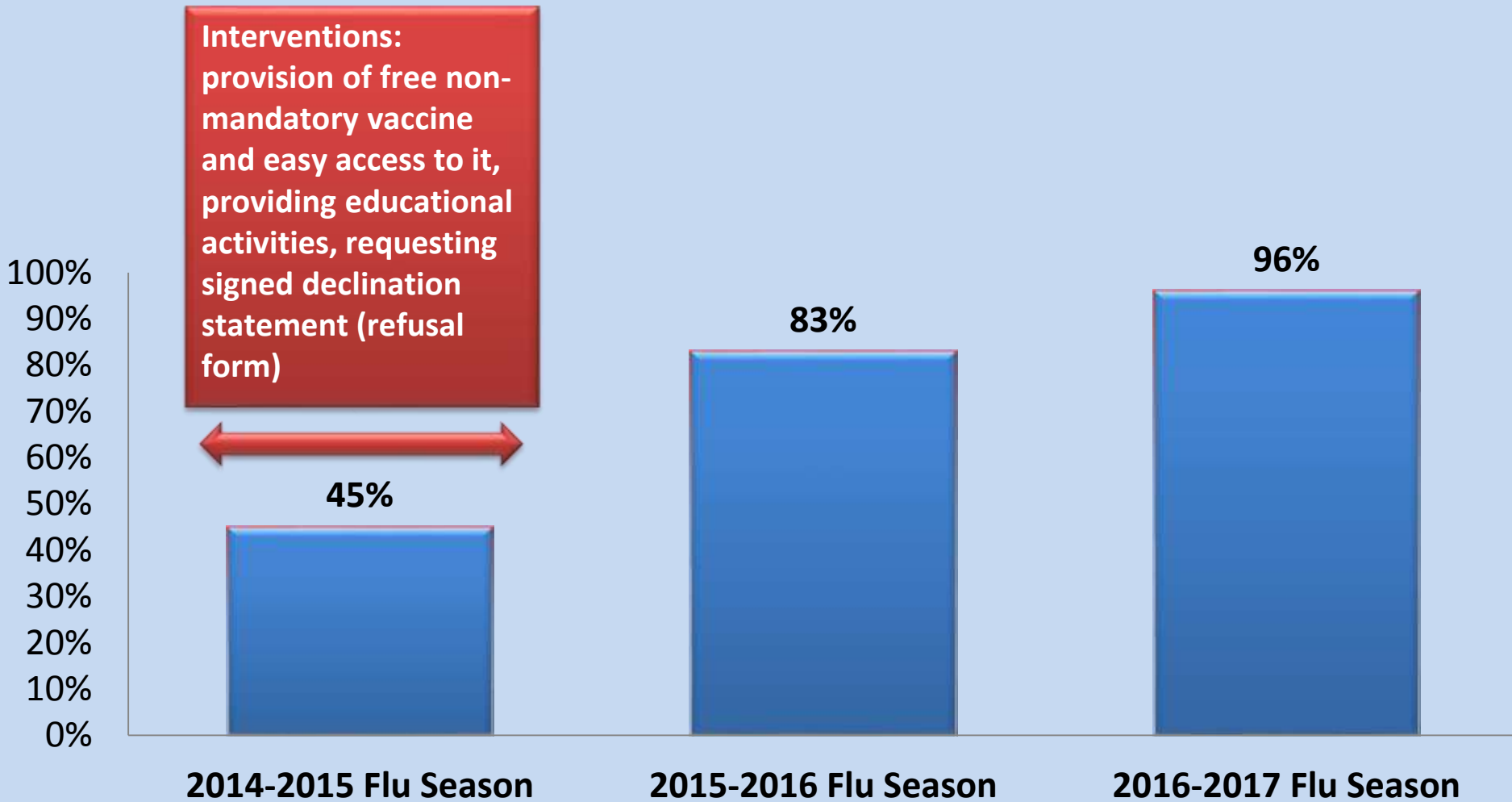
2016-2017 season

Flu season selected: October till February

- **SL rate due to ILI** calculation =
$$\frac{\text{Total number of SL due to ILI during the flu season}}{\text{Total number of SL during the flu season}}$$
- The impact of influenza vaccination on SL rate due to ILI was compared between **vaccinated** and **unvaccinated** HCWs during flu seasons

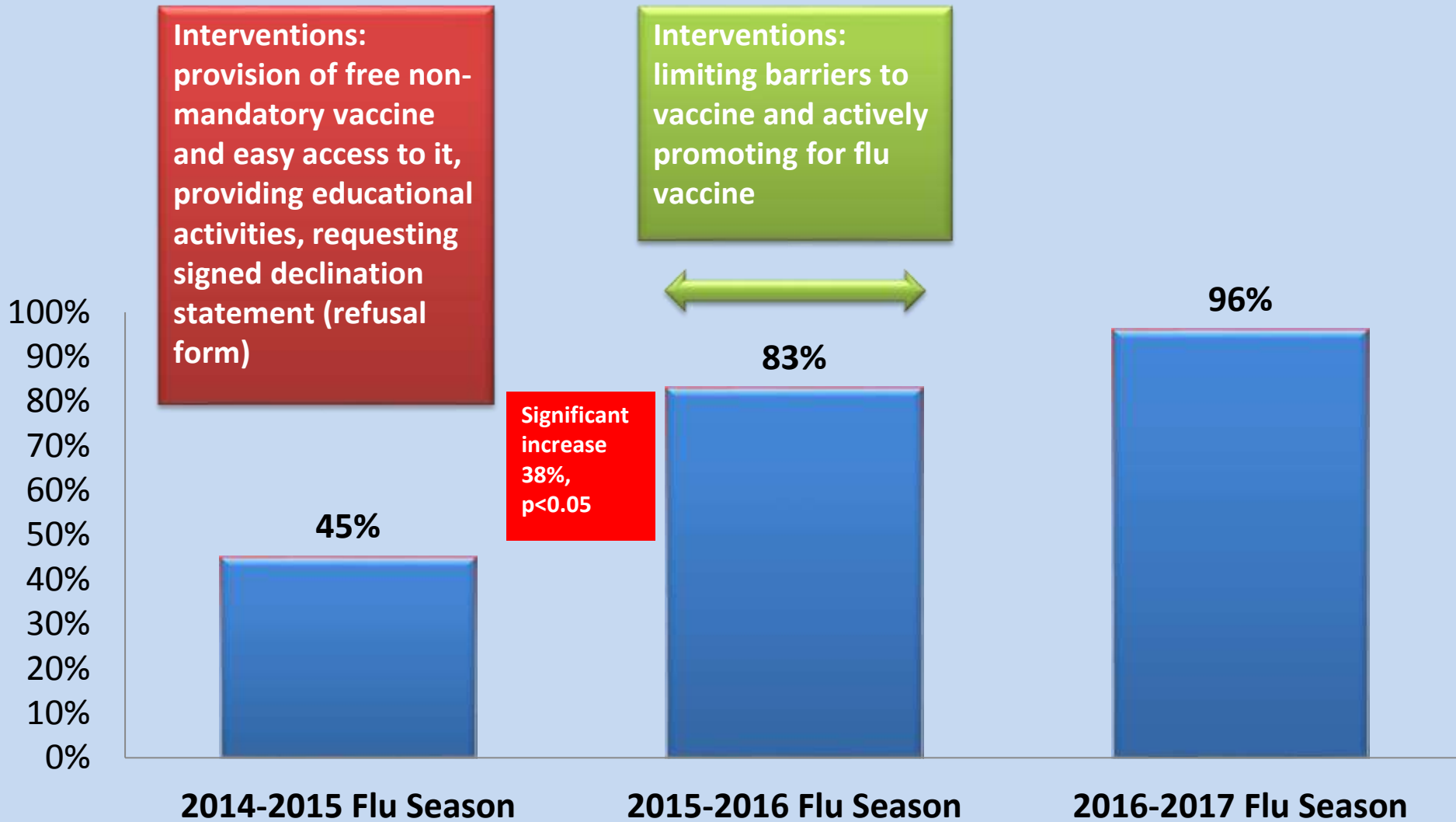
Results

Influenza Vaccine Coverage Rate from October 2014 – February 2017



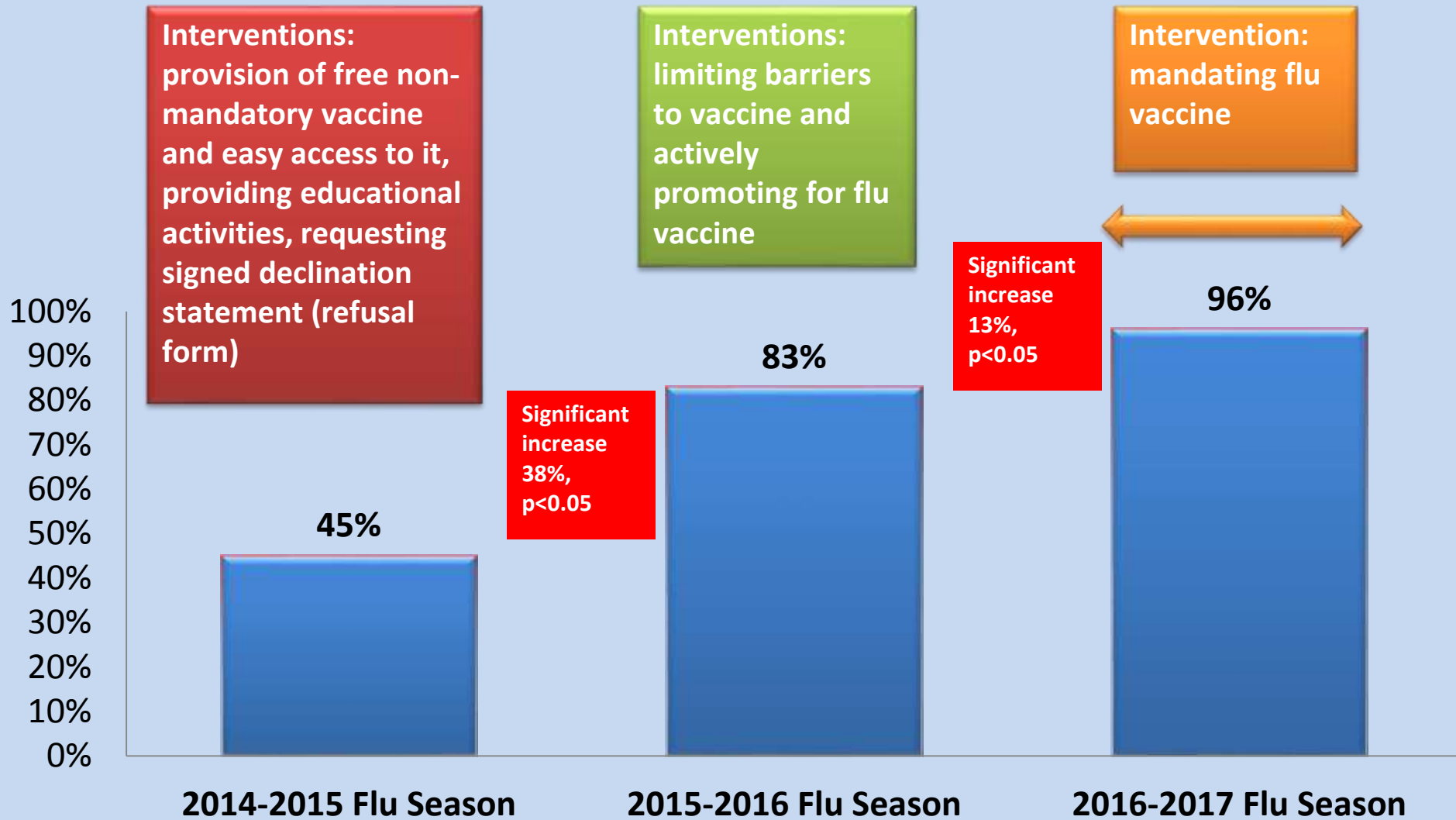
■ Influenza Vaccine Coverage Rate

Influenza Vaccine Coverage Rate from October 2014 – February 2017



■ Influenza Vaccine Coverage Rate

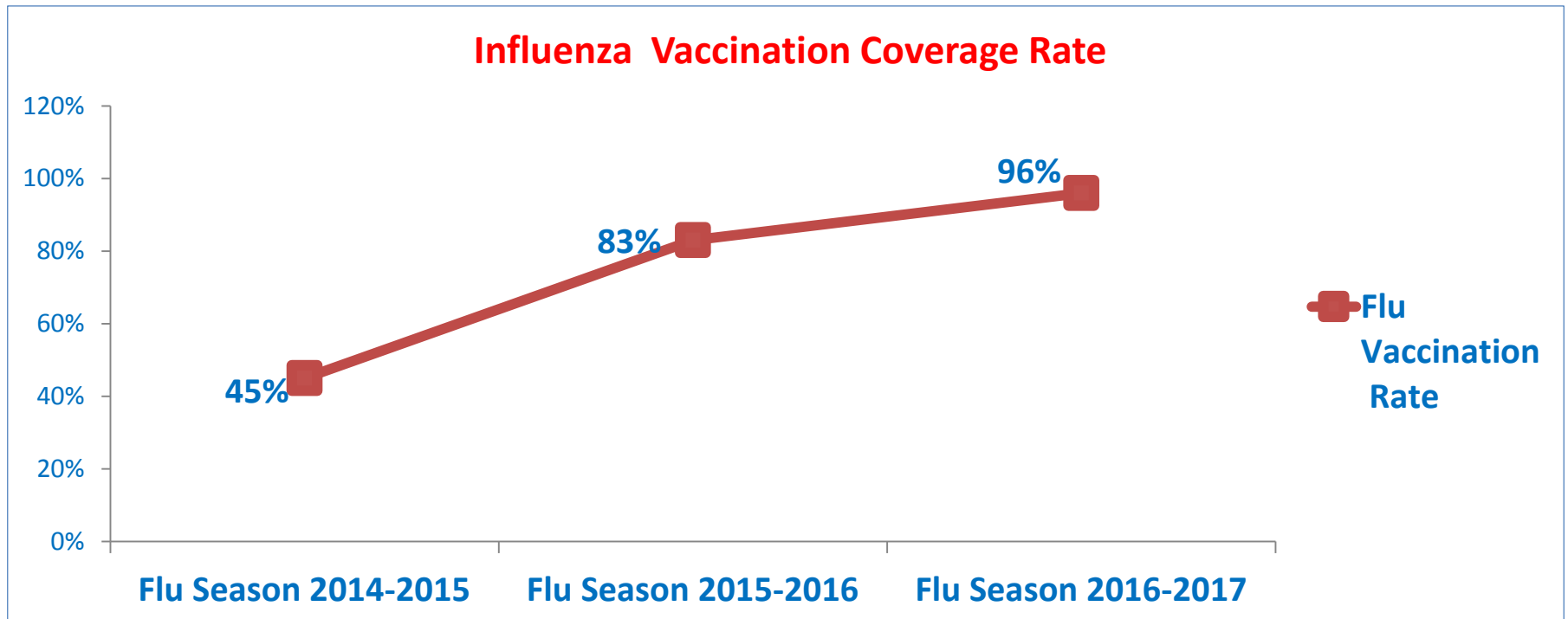
Influenza Vaccine Coverage Rate from October 2014 – February 2017



■ Influenza Vaccine Coverage Rate

Results (continued)

- With the use of multiple progressive interventions:
 - The overall Influenza Vaccination Coverage rate increased significantly by **51%** (p-value<0.05)



Sick Leave (SL) due to ILI in Vaccinated and Unvaccinated HCW

Flu Season	SL due to ILI in Unvaccinated HCW	SL due to ILI in Vaccinated HCW	Total SL
2014-2015	40	20	143
2015-2016	157	51	520
2016-2017	173	52	624
Total	370 (29%)	123 (10%)	1287

Significant decrease of 19% (p-value<0.05)

Throughout the three flu seasons, the increase in IVC rate was associated with 19% reduction (p-value<0.05) in SL rate due to ILI between vaccinated and unvaccinated HCWs

Conclusions

- Our findings confirm the importance of a comprehensive approach using combined interventions that have cumulative effect resulting in increased IVC rate
- A mandatory influenza vaccination program for HCWs is feasible and results in extremely high vaccination rates
- Influenza vaccination of HCWs is significantly associated with a fewer number of SL due to ILI
- Long-term well-designed programs are the key to sustainable improvement in IVC rate, leading to improved patient safety outcome



د. | مالك الموسى
CEO | Mr. Malek

ملك

Protect y

المرضى
تطعيم

“I call on
to get
vaccine

ونزا
T

12 للمرضى

خذها قبل
لا يجيك الدور



خذ لقاح الإنفلونزا
و احمي نفسك
و عائلتك .



www.almoosahospital.org



مستشفى الموسى التخصصي
Almoosa Specialist Hospital



References

- Centers for Disease Control and Prevention. Influenza Vaccination Information for Health Care Workers. <https://www.cdc.gov/flu/healthcareworkers.htm> Accessed February 6, 2017
- Lytras, Theodore, et al. "Interventions to increase seasonal influenza vaccine coverage in healthcare workers: A systematic review and meta-regression analysis." *Human vaccines & immunotherapeutics* 12.3 (2016): 671-681.
- Hollmeyer, Helge, et al. "Review: interventions to increase influenza vaccination among healthcare workers in hospitals." *Influenza and other respiratory viruses* 7.4 (2013): 604-621.
- Llupia, Anna, et al. "New interventions to increase influenza vaccination rates in health care workers." *American journal of infection control* 38.6 (2010): 476-481.
- Rakita, Robert M., et al. "Mandatory influenza vaccination of healthcare workers: a 5-year study." *Infection Control & Hospital Epidemiology* 31.09 (2010): 881-888.
- Music, Tamara. "Protecting patients, protecting healthcare workers: a review of the role of influenza vaccination." *International nursing review* 59.2 (2012): 161-167.

Thank you

For further communication, kindly contact:
bassel.molaeb@almoosahospital.com.sa