

Decision-making about seasonal influenza and HPV vaccinations among different ethnic groups in Arab and Jewish society in Israel

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Background: Parents in the Arab population of Israel are known to be “pro-vaccination” and vaccinate their children at higher rates than the Jewish population, specifically against human papilloma virus (HPV) and seasonal influenza. Arabs living in Western countries as minority groups tend to vaccinate their children less than the dominant national group. As opposed to the aforementioned Arab minority groups living in Western countries, parents in the Arab population of Israel are known to be “pro-vaccination” and tend to vaccinate their children at higher rates than the Jewish population, specifically against the human papillomavirus (HPV) and seasonal influenza.

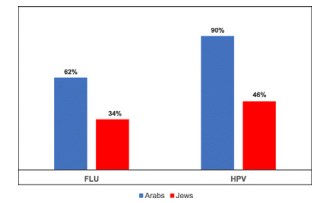
Objectives: This study seeks to identify and compare variables associated with mothers’ uptake of two vaccinations, influenza and HPV, among different subgroups in Arab and Jewish society in Israel.

Methods: A cross-sectional study of the entire spectrum of the Israeli population was conducted using a stratified sample of Jewish mothers (n=159) and Arab mothers (n=534) from different subgroups: Muslim, Christian, Druse and Northern Bedouins. From March 30, 2019 through October 20, 2019, questionnaires were distributed manually to eighth grade pupils (13–14 years old) who had younger siblings in second (7–8 years old) or third (8–9 years old) grades.

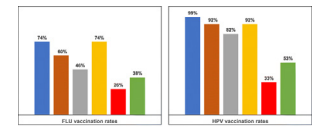
Results: Arab mothers exhibited a higher rate of uptake for both vaccinations ($p < .0001$, HPV – 90%; influenza – 62%) than Jewish mothers ($p = 0.0014$, HPV – 46%; influenza – 34%). Furthermore, results showed that HPV vaccination uptake is significantly higher than seasonal influenza vaccination uptake in both populations. Examination of the different ethnic subgroups revealed differences in vaccination uptake. For both vaccinations, the Northern Bedouins exhibited the highest uptake rate of all the Arab subgroups (74%), followed by the Druse (74%) and Muslim groups (60%). The Christian Arab group exhibited the lowest uptake rate (46%). Moreover, the uptake rate among secular Jewish mothers was lower than in any of the Arab groups (38%), though higher than among religious/traditional Jewish mothers, who exhibited the lowest uptake rate (26%). A comparison of the variables associated with mothers’ vaccination uptake revealed differences between the ethnic subgroups. Moreover, the findings of the multiple logistic regression revealed the following to be the most significant factors in Arab mothers’ intake of both vaccinations: school-located vaccination and mothers’ perceived risk and perceived trust in the system and in the family physician. These variables are manifested differently in the different ethnic groups.

Conclusion: This research shows that all Arabs cannot be lumped together as one monolithic group in that they exhibit major differences according to religion, education and access to information. Ranking of variables associated with uptake of the two vaccines can provide decision-makers an empirical basis for tailoring appropriate and specific interventions to each subgroup to achieve the highest vaccine uptake rate possible. Media campaigns targeting the Arab population should be segmented to appeal to the various sub-groups according to their viewpoints, needs and health literacy.

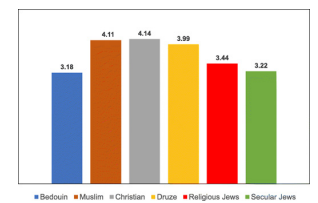
1. Differences in uptake between Arab and Jewish populations:



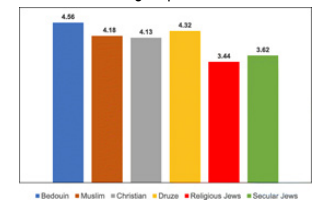
2. Differences in mothers’ uptake of the two vaccination types by ethnic group:



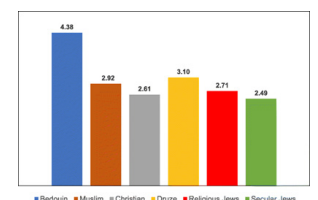
3. Variables associated with vaccination uptake according to ethnic subgroup:



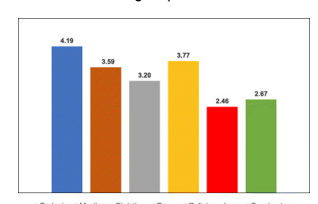
Means of trust the health system among different ethnic groups



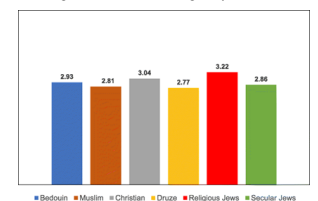
Means of trust the family doctor among different ethnic groups



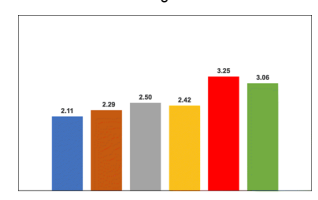
Means of low health literacy among different ethnic groups



Means of including vaccination in school program as a legitimization to vaccination among different ethnic groups



Means of perceived risk of influenza vaccination among different ethnic groups



Means of perceived risk of HPV vaccination among different ethnic groups