The Effectiveness of Combined Appointments at Increasing Influenza Immunization Rates in a Rural WIC Population

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PURPOSE

The purpose of this descriptive retrospective study was to examine predictors of and barriers to influenza immunization receipt in a low-income WIC population.

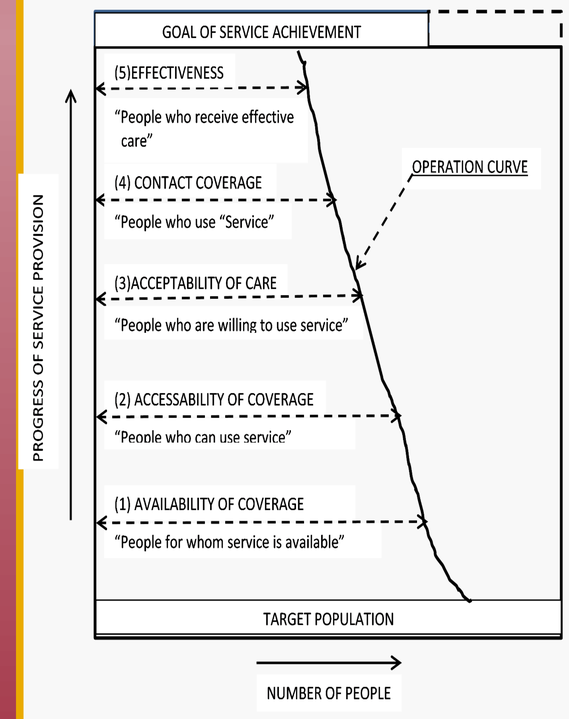
BACKGROUND

- Influenza is a highly infectious acute viral disease of the respiratory tract that continues to be responsible for illness and hospitalizations and is a major cause of childhood morbidity and mortality (CDC, 2013; CDC, 2015).
- Vaccination is the primary mode of influenza prevention, yet many children are not immunized (Dawood, et al., 2012).
- Vaccinating the majority of children results in herd immunity which protects the community (Monto, Davenport, Napier, & Francis, 1970).
- When designing a system of care for infants and children, it is important to recognize the needs of the parents/care-giver as well as a usable model for health care delivery (Bennett, Pumkam, & Probst, 2011; Cohen et al., 2013; Groom et al., 2015; Paskett et al., 2016).
- Tanahashi's (1978) Access to Care model examines elements of access to care and identifies barriers, ways to improve measurement of coverage programs, and strategies for improvement (Becart, 2014; Hongvivitana, 1984; UNICEF, 2013).

METHODS

A quality improvement project was conducted in October 2010 in which 129 caregivers of children having WIC appointments were randomly assigned to receive (a) influenza immunizations at the time of the WIC visit or (b) educational materials and a later opportunity for immunization.

- Caregivers completed a survey about their perceptions of influenza immunizations.



- Tanahashi's Access to Care model (1978) was used to identify predictors (acceptability, accessibility, availability, and effectiveness) of influenza immunizations.

RESULTS

IMPACT OF COMBINING INFLUENZA IMMUNIZATIONS AT THE TIME OF WIC APPOINTMENTS

- Participants who received only educational materials and an opportunity to receive an immunization at a later date were less than ½ as likely to get immunized (15.6%) as those who were offered a same day influenza immunization (39.3%).
- There was a significant association between whether or not influenza immunization was offered at the time of the WIC appointment and the rate of influenza immunization, $\chi 2$ (1)=7.905, p=.005.

IDENTIFIED PREDICTORS FOR INFLUENZA IMMUNIZATION

- The acceptability scale was a significant predictor (AOR = 2.261, p = .019) of immunization receipt but items measuring accessibility, availability, and effectiveness were not significant predictors.
- An additional logistic regression in which all model variables were combined with demographic variables and the experimental group variable resulted in acceptability remaining significant.

CONCLUSIONS

- These findings suggest that offering immunizations at the time of a WIC appointment may increase rates of childhood immunizations.
- This practice will maximize staffing and parental satisfaction, resulting in an overall cost savings.
- Parental acceptability of influenza immunizations is a significant predictor of receipt of childhood influenza immunization. Future research with Tanahashi's model is needed to help address bottlenecks in access to care and examine model predictors of health services.
- Counseling parents about the importance of receiving immunizations and offering them at the time of an encounter such as at schools, family health fairs, or emergency rooms may be beneficial in significantly increasing the rates of influenza immunization of children aged 6 months to 59 months.

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