



Text4baby Childhood Immunization Pilot Module: Preliminary Findings

In March 2013, text4baby collaborated with the California Department of Health and Immunize Nevada to launch a pilot childhood immunization module as part of the text4baby service. The goal of the module is to encourage timely well-baby visit attendance and childhood immunization at birth, 2, 4, 6 and 12 months and gain insight around self-reported visit attendance and childhood immunization among text4baby participants.

Module Design

The module is comprised of educational and reminder messages, prompts to set up specific appointment reminders, and follow-up/feedback questions. All data collected as part of this module are self-report and are not validated using medical records and/or claims data which are most commonly used to assess immunization status and appointment attendance. The design of the module is summarized below:

Hepatitis B: Educational message before birth and follow-up question after birth asking if baby received hepatitis B vaccine
Well-baby Visits & Immunization: Informative well-baby visit reminder 2 weeks prior to baby's 2, 4, 6 and 12 month birthdays Opportunity to set up text message appointment reminder at two points Follow-up question 2 weeks after baby's 2, 4, 6 and 12 month birthdays asking if a participant went to their well-baby visit, and for those who attended, if they got their baby vaccinated (note: the follow-up question did not ask about specific vaccinations and only asked generally if baby received vaccinations at their visit)
Feedback: Evaluation question 3 weeks after 6 or 12 month birthday asking if text4baby messages helped to get baby vaccinated

Sample

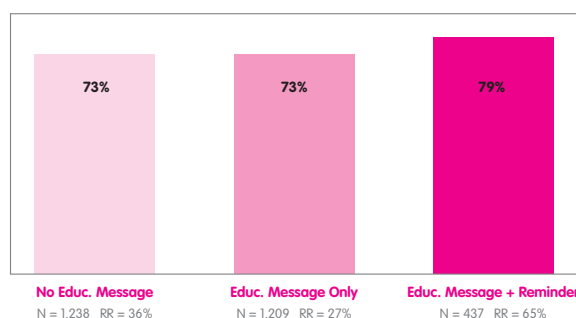
A total of 11,117 participants provided one or more responses to module questions asked from 3/5/13 – 5/23/13. The majority of the sample was from California (85% California, 15% Nevada) and signed up to receive text4baby messages in English (85% English, 15% Spanish). Over 40% responded to at least one question and 10% responded to every question they received.

Results

Well-baby Visit Preliminary Findings

- **High Appointment-Making Rates:** At least 80% of text4baby respondents (n=2,761) reported they made a well-baby visit appointment as of 1 week before their baby's 2, 4, 6 or 12 month birthday.
- **SMS Appointment Reminder Use:** 11.7% of text4baby respondents (n=1,102) set up an appointment reminder for their well-baby visit.
- **High Self-Reported Appointment Attendance:** At least 69% of respondents (n=2,884) reported attending their well-baby visit appointment as of 2 weeks after their baby's 2, 4, 6 or 12 month birthday.
- **Well-baby Visit Attendance Higher Among Participants Who Receive Educational and Reminder Messages:** Self-reported well-baby visit attendance was 6 percentage points higher across all visits among respondents who received education and appointment reminder messages compared to those who received neither (n=2,884) (see Figure 1). This relationship was stronger among respondents receiving messages in Spanish (9 percentage points higher, n=477).

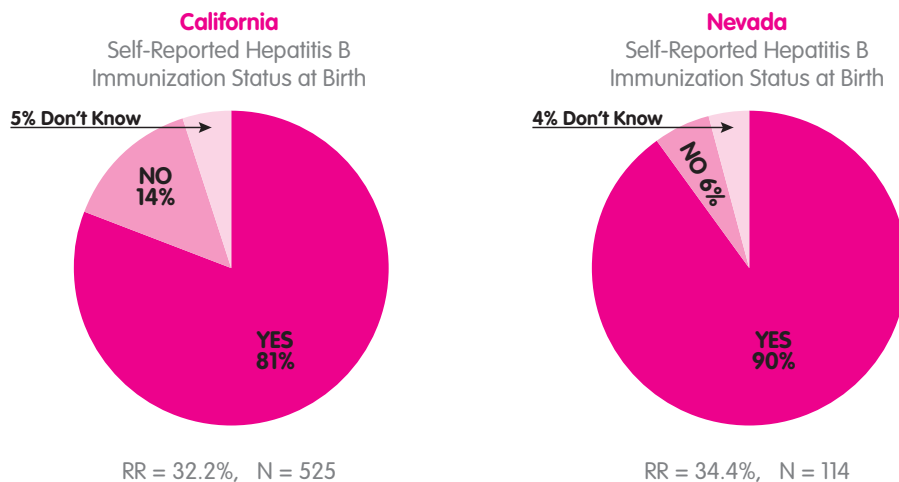
Figure 1. Differences in Self-Reported Well-baby Visit Attendance by Educational Message and Appointment Reminder Status (RR = response rate)



Immunization Preliminary Findings

- **High Self-Reported Hepatitis B Vaccination:** 81% of CA respondents (n=525) and 90% of NV respondents (n=114) reported baby was vaccinated against hepatitis B at birth (see Figure 2).
- **High Self-Reported Rates of Infant Vaccination at Well-baby Visits:** At least 92% of CA (n=1,575) and 91% of NV respondents (n=312) who attended their well-baby visits reported their baby received at least one vaccination.
- **Infant Immunization Higher Among Participants who Receive Educational Message Reminder:** Self-reported infant immunization at well-baby visits was 5 percentage points higher across all visits among respondents who received an education message two weeks prior compared to those who did not (n=1,886).
- **Respondents Find Messages Helpful:** 72% of respondents (n=1,014) reported text4baby messages were helpful in remembering to get baby vaccinated; 90% of Spanish respondents reported the messages were helpful.

Figure 2. Self-Reported Hepatitis B Vaccination: California & Nevada



Conclusions & Further Research

- Preliminary findings show a positive relationship between appointment reminders and well-baby visit attendance for text4baby participants.
- Preliminary findings also show higher rates of self-reported hepatitis B vaccination in both California and Nevada compared to rates available from the National Immunization Survey.
- Appointment reminders and educational messaging appear to be more effective for participants who sign up to receive Spanish messages compared to the overall sample.
- Further research should validate the impact of appointment reminders on well-baby visit attendance using medical record/claims data; explore the accuracy of self-reported childhood vaccination, particularly for hepatitis B; and explore receptivity and impact of the module, particularly appointment reminders, on well-baby visit attendance and vaccinations for English and Spanish speaking participants.

*Results from this analysis of the pilot immunization module cannot be generalized to the entire text4baby population.