Making a SmartStart for peanut introduction to support food allergy prevention guidelines for infants

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Background: Food allergy affects up to 10% of Australian infants. It was hypothesized that if parents follow the Australasian Society of Clinical Immunology and Allergy guidelines, Australian food allergy rates may stabilize or decline.

Objective: This project aimed to determine whether SmartStartAllergy influenced parental introduction of peanut by age 12 months, including in high-risk infants.

Methods: SmartStartAllergy integrates with general practice management software to send text messages to parents via participating general practices. The intervention group participants were sent text messages when their child was aged 6, 9, and 12 months; the control group participants were parents of 12-month-old infants. When their child was aged 12 months, all participants completed a questionnaire regarding eczema and family history of atopy. Infants with severe eczema and/or a family history of atopy were considered high-risk.

Results: Between 21 September 2018 and 26 April 2022, a total of 29,092 parents were enrolled in SmartStartAllergy as intervention (n = 18,090) and control (n = 11,002) group members The intervention group was more likely to introduce peanut by 12 months (crude odds ratio = 5.18; $P < .0001$; 95% CI = 4.35-6.16). After adjustment for the infants' level of risk and family history of atopy and food allergy, the intervention group was more likely to introduce peanut by 12 months of age (adjusted odds ratio = 5.34; $P < .01$; 95% CI = 4.48-6.37).

Conclusion: SmartStartAllergy appears to be an effective tool for encouraging parental introduction of peanut. The ability to provide parents with credible allergy prevention information, along with the capacity to collect simple responses via text along with additional information via an online questionnaire, make this a useful public health tool. (J Allergy Clin Immunol Global 2023;2:100102.)

Key words: *Peanut allergy, public health intervention, food allergy, prevention*

Food allergy affects up to 10% of infants in Westernized countries.[1] Although peanut allergy tends to be lifelong, allergies to egg and milk are also becoming more persistent.[2] Food allergy is more common in children than in adults, and its prevalence has been increasing over the past 2 to 3 decades.[1] In Australia, admission rates for food-related anaphylaxis increased 9-fold between 1998-1999 and 2018-2019.[3] Although infants with a family history of atopy are at higher risk, infants without a family history of atopy can also develop food allergies.[4]

In 2015, several landmark randomized controlled studies[5-7] and meta-analyses[8] on food allergy prevention were published, leading to changes in infant feeding advice for food allergy prevention worldwide.[9] In 2016, the Australasian Society for Clinical Allergy and Immunology (ASCIA) Guidelines for Infant Feeding and Allergy Prevention (ASCIA guidelines) were updated to align with this evidence.[10] The 2016 ASCIA guideline recommend regular inclusion of common food allergens, including peanut and cooked egg, in the infant's diet by age 1 year.[10]

It was hypothesized that if parents follow the ASCIA guidelines, the rates of food allergy in Australia may stabilize or even decline.[4,11] The ASCIA guidelines state that infants with

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Abbreviations used
ACT: Australian Capital Territory
ASCIA: Australasian Society of Clinical Immunology and Allergy
LEAP: Learning Early about Peanut Allergy
NAITB: Nip Allergies in the Bub
NSW: New South Wales
NT: Northern Territory
QLD: Queensland
SA: South Australia
SMS: Short Message Service
TAS: Tasmania
VIC: Victoria

eczema, particularly severe eczema, and/or a family history of atopy are considered at increased risk of developing food allergy.[10] There is good evidence to indicate that infants at increased risk of developing a food allergy are more likely to benefit from early introduction of peanut.[6] However, several barriers to the implementation of updated guidelines for infant feeding for food allergy prevention have been acknowledged, including education of health professionals and health professional support of the guidelines, parental awareness and hesitancy, and existing infant feeding resources.[12-14]

The ASCIA guidelines have not previously been actively promoted to parents or health professionals. In 2018, the National Allergy Strategy (a partnership between ASCIA and Allergy & Anaphylaxis Australia) actively promoted the ASCIA guidelines through the Nip Allergies in the Bub (NAITB) project, using a public health approach.[15,16] To encourage the introduction of peanut and other common food allergens by age 1 year, a novel public health tool, SmartStartAllergy, was developed. SmartStartAllergy is a smartphone-based Short Message Service (SMS) system[17] that was developed to work as an SMS reminder tool and also directs parents to the NAITB website for practical, evidence-based information on infant feeding and allergy prevention.

This project aimed to (1) determine whether SmartStartAllergy influenced parental introduction of peanut by age 12 months and (2) determine whether SmartStartAllergy influenced parental introduction of peanut by age 1 year in infants considered at increased risk of developing food allergy.

METHODS

SmartStartAllergy

SmartStartAllergy is a smartphone-based application based on the SmartVax infrastructure[18] that was designed to monitor adverse reactions to vaccines. Like SmartVax, SmartStartAllergy integrates with general practice management software to send SMS messages (text messages). SmartStartAllergy sends SMS messages to parents of infants up to age 12 months. The intervention group participants were parents of 6-month-old infants (to allow 6-, 9-, and 12-month repeat surveys), and the control group participants were parents of 12-month-old infants. As the Learning Early about Peanut Allergy (LEAP) study[6] showed benefits of peanut introduction by age 11 months, interventions at 6 and 9 months were chosen to allow at least 2 opportunities to encourage peanut introduction before age 11 months. A text message was sent to parents when their child was aged 12 months to determine whether peanut was introduced in the first year of life.

As previously reported,[17] SmartStartAllergy comprises 2 data collection components: text messages and an online questionnaire. The text messages are designed to collect information about the timing of peanut introduction, and the questionnaire collects information about introduction of common food allergens, parent-reported reactions to food, eczema, family history of allergy, and country of birth.

SmartStartAllergy text message and questionnaire data are collected locally by the general practice, and identifiable data are available only to the corresponding general practice.[17] This is important to enable the general practice to be alerted by the SmartStartAllergy program if a reaction to a food with symptoms likely to be allergy based is reported by a parent.

Text message (SMS message) protocol. The text message protocol for parents in the intervention and control groups is outlined in Fig 1.[17] Up to 5 automated text messages were sent to parents in the intervention group at each time point (6, 9, and 12 months), and up to 3 automated text messages were sent to parents in the control group (at 12 months). The additional text messages sent to the intervention group parents related to whether their child had started eating solid foods and provided a link to the NAITB website to encourage introduction of common food allergens. Parents were able to opt out at any stage by replying STOP. This study examines responses to SMS message 1, SMS message 3, SMS message 6, and SMS message 7 (described in Fig 1), focusing on the introduction of peanut at the 3 different time points in the intervention group and compares them with the responses to SMS A in the control group.

Online questionnaire. The intervention group parents were provided with the questionnaire link at each time point (6, 9, and 12 months), whereas the control group parents were provided with a link to the questionnaire when their child was aged 12 months, as outlined in Fig 1. The questionnaire contains 4 sections: sections 1 and 2 (provided at 6, 9, and 12 months) are related to the introduction of common allergens and parent-reported reactions. These sections of the questionnaire are dynamic, which is to say that the questions asked are dependent on the responses provided to earlier questions (ie, if the allergen had been consumed or if an adverse reaction to food had occurred), and as well as on responses provided at previous time points, as shown in Fig 2. Sections 3 and 4 are related to the child's history of eczema, family history of atopy, and country of birth; are not response driven; and are provided only at 12 months. The content of the questionnaire was determined by known risk factors for the development of food allergy in infants and aimed to elicit information about parent-reported allergic reactions to enable assessment of whether the reactions were likely to be immediate allergic reactions. The questionnaire was reviewed by Allergy & Anaphylaxis Australia, the national patient support organization for consumer suitability.

Recruitment

Participants were recruited by SmartStartAllergy via the participant's usual community general practitioner. Recruitment was sought through general practices already using SmartVax (n = 282) and promoted to new general practices across Australia from September 21, 2018 to April 26, 2022. The study aimed to recruit 6000 participants in both the intervention and control groups, which is a sufficient sample size required for greater than 90% statistical power for comparison of outcomes between groups (and subgroups). Of the 282 SmartVax enrolled practices, 59 were participating in this SmartStartAllergy study as of April 2022, including 30 practices in Western Australia (WA), 10 in New South Wales (NSW), 9 in Queensland (QLD), 3 in Victoria (VIC), 2 in South Australia (SA), 2 in the Australian Capital Territory (ACT), 2 in the Northern Territory (NT), and 1 in Tasmania (TAS). All WA sites were included in the intervention group owing to the piloting of the NAITB project and resulting active promotion of the ASCIA guidelines, in WA. All sites in the remaining regions (NSW, VIC, ACT, NT, TAS, SA, and QLD) were assigned either as intervention or control sites. All sites in SA and QLD were allocated as control sites because at the time of implementation, there was no known active promotion of the ASCIA guidelines in these states. All sites in the remaining states and territories were alternately assigned as intervention or control.

Definition of high-risk infant

For the purposes of this study, the definition of an infant at high-risk of developing food allergy was an infant with severe eczema and/or a first-degree relative with a history of atopy, consistent with the ASCIA guidelines.[19] Severe eczema was defined as using either prescribed or over-the-counter topical

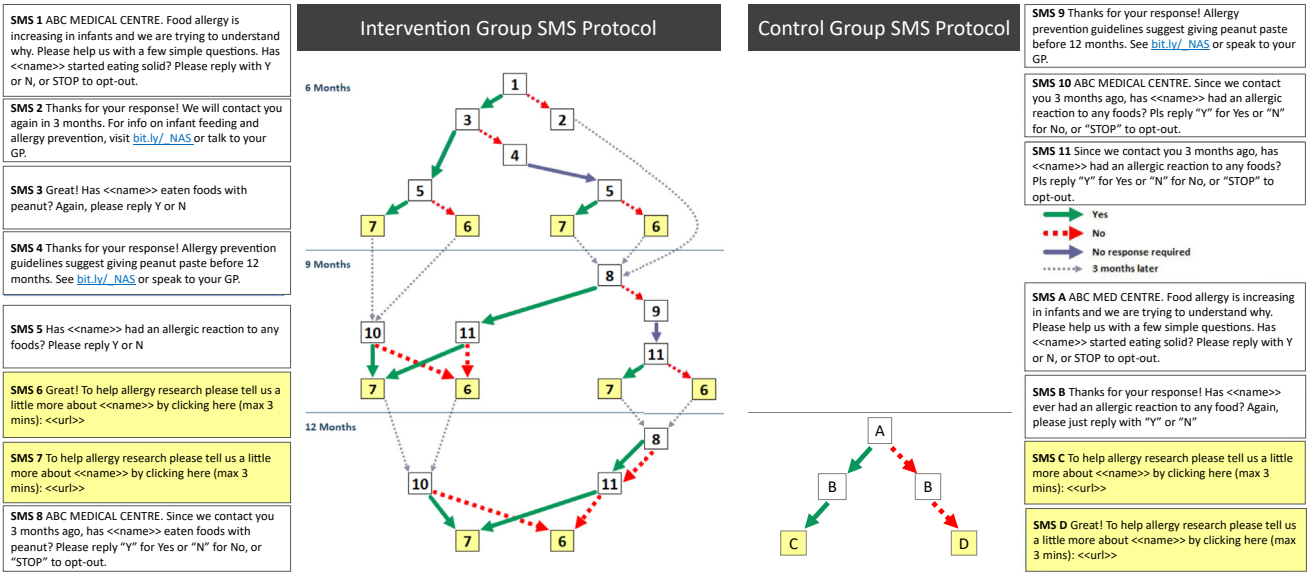

FIG 1. The SmartStartAllergy SMS message protocol for both the intervention and control groups, including the SMS message wording.

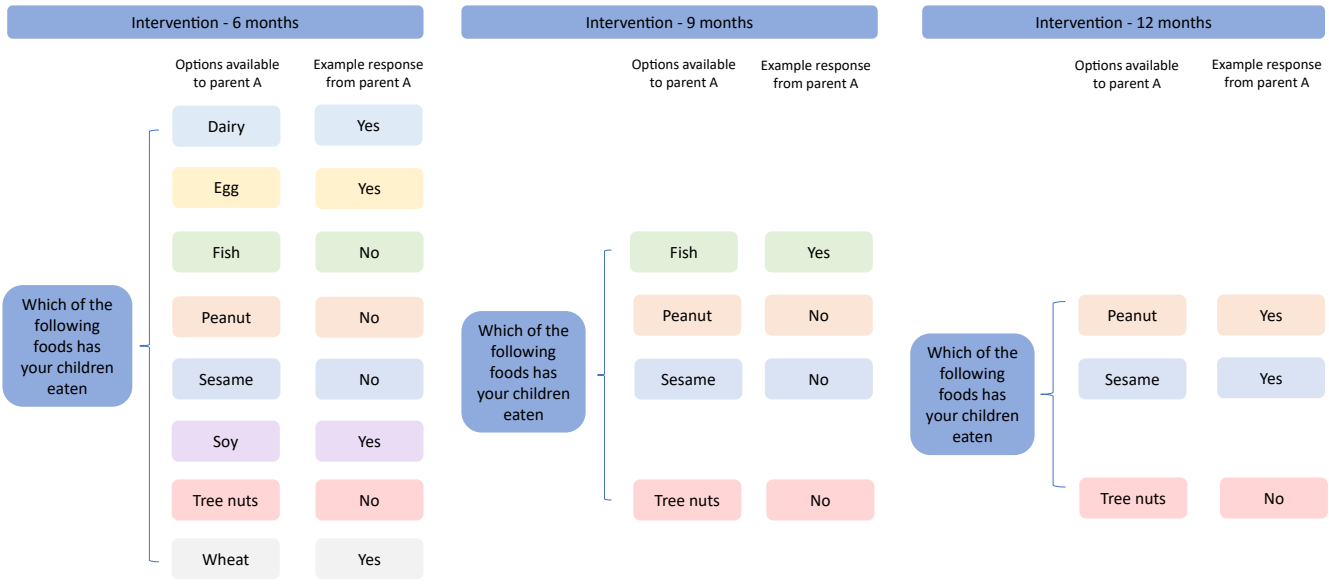

FIG 2. Example of the dynamic nature of the SmartStartAllergy questionnaire to avoid parents having to respond to questions that have previously been answered.

corticosteroids for the treatment of the eczema, consistent with the LEAP study criteria.[6] For the intervention group, eczema information was collected at 6 months and hence used. For the control group, eczema information was collected only at 12 months.

Definition of hesitant parent

For the purposes of this study, a parent was considered hesitant if he or she had not introduced peanut by age 9 months.

Data analysis

This study used a subset of the SmartStartAllergy data: SMS message data specifically investigating the responses to peanut introduction and questionnaire data relating to eczema in the child and a family history of atopy. Descriptive analysis and logistic regression analysis of the SMS message and questionnaire data were undertaken. Logistic regression was used to estimate the odds ratio and 95% CI for SMS responses relating to peanut introduction by intervention or control. Logistic regression analysis to estimate the odds ratio and 95% CI for peanut introduction by intervention and control was also undertaken, with adjustment for high-risk infant status and family history of food allergy. Sensitivity analysis regarding peanut introduction for the control group versus for the intervention group was undertaken at different time points during the course of the study (at 6, 12, and 18 months after implementation). All analyses were performed using SAS software, version 9.4 (SAS Institute, Inc, Cary, NC).

Data from the SMS message and questionnaire responses received from parents of infants between September 21, 2018, and April 26, 2022, were included in the analysis. Completed questionnaire responses about eczema

TABLE I. Regions of recruitment, response rates and peanut introduction rates at each age of the intervention group and control group

Group	WA	All other regions	Total	Response rate to the SMS message "eaten peanut" at 6 mo (SMS data), no. (%)	Response rate to SMS "eaten peanut" at 9 mo (SMS data), no. (%)	Response rate to SMS message "eaten peanut" at 12 mo (SMS data), no. (%)	Responded yes to "eating solids" at 6 mo (SMS data), no. (%)	Responded yes to "introduced peanut by 12 mo of age" (SMS data), no. (%)	HRI : responded yes to "introduced peanut by 12 mo of age" (SMS and questionnaire data), no. (%)*	Non-HRI: responded yes to "introduced peanut by 12 mo of age" (SMS and questionnaire data), no. (%)*
Intervention	10,900	7,190	18,090	9,883 of 10,343 (94.72%)	5,177 of 7,057 (73.36%)	584 of 824 (70.87%)	10,319 of 11,263 (91.62%)	6,470 of 6,635 (97.51%)†	2,982 of 3,208 (92.96%)	607 of 652 (93.10%)
Control	0	11,002	11,002	N/A	N/A	5,990 of 10,998 (54.46%)	N/A	5,291 of 5,990 (88.33%)	1,282 of 1,415 (90.60%)	392 of 434 (90.32%)
Total	10,900	18,090	29,092	10,343	7,059	11,822	11,263	12,625	2,187	652

HRI, High-risk infant; *N/A*, Not available.
*Complete responses only.
†The result of the comparison between the intervention and control groups by using logistic regression analysis is statistically significant.

and family history in sections 3 and 4 of the questionnaire were included in a subanalysis investigating responses from parents of infants considered to be at high-risk of developing a food allergy. A subanalysis of parents considered hesitant was also undertaken.

Ethics approval was obtained from The University of Western Australia Human Research Ethics Committee (approval reference no. RA/4/20/4580).

RESULTS

A total of 18,090 parents were included in the intervention group; 10,900 in WA and 7,190 in other regions. A total of 11,002 parents were included in the control group, as outlined in Table I.

Intervention versus control: SMS message data

Overall, the SMS message response rate was higher in the intervention group at 6 months (9,883 of 10,343 [94.7%]), 9 months (5,179 of 7,059 [73.4%]), and 12 months (584 of 824 [70.9%]), respectively, than in the control group at 12 months (5,990 of 10,998 [54.5%]), as outlined in Table I and Fig 3.

Of the 9883 parents in the intervention group who responded to the text messages, 6635 parents provided responses that enabled determination of whether peanut had been introduced by age 12 months. The responses obtained from the 6635 parents in the intervention group and 5990 parents in the control group were analyzed. A comparison of the intervention and control groups for peanut introduction by 12 months of age revealed that 97.51% of the intervention group members (6470 of 6635) had introduced peanut compared with 88.33% in the control group (5291 of 5990), with a crude odds ratio of 5.18 ($P < .0001$; 95% CI = 4.35-6.16) (Table I). Sensitivity analyses undertaken at different time points of the study yielded the same results.

Subanalysis of intervention group: SMS message data

In the intervention group, 91.6% of the parents who responded (10,319 of 11,263) had introduced solid foods at age 6 months. Fig 4 shows the percentage of parents in the intervention group who reported having introduced peanut when contacted at each time point (ie, at 6, 9, and 12 months). Of those parents who responded to the text message when their child was aged 6 months, 21.2% (2,094 of 9,883) reported they had introduced peanut. Of those parents who responded to the text message when their child was aged 9 months, 76.4% of those who had not introduced peanut by 6 months (3,957 of 5,177) reported that they had introduced peanut by 9 months, and of those parents who responded to the text message when their child was aged 12 months, 71.8% of those who had not introduced peanut by 9 months (419 of 584) reported introducing peanut by 12 months.

Subanalysis of high-risk infants: SMS message and questionnaire data

Table II provides an overview of the proportions for eczema, severe eczema, family history of atopy, and high-risk infant in the intervention and control groups. For the intervention group and control group combined, of those who responded to the questions about eczema, 29.80% (2069 of 6942) reported that their infant had eczema, and of those who responded to the questions about eczema and eczema treatment, 6.31% (328 of 4873) reported responses consistent with severe eczema. Of those who responded to the question about family history of atopy, 77.65% (3175 of 4089) reported a family history, and of those who responded to both questions relating to eczema and family history of atopy, 83.14% (3214 of 3866) of infants met the definition of being high-risk (severe eczema and/or family history of atopy), with a slightly higher proportion in the intervention (86.28% [1371 of 1589]) and the control (80.94% [1843 of 2277]) groups. The variation in denominators is due to the removal of incomplete responses that would not enable the determination of whether the child was considered high-risk.

Logistic regression analysis indicated that regardless of the infants' level of risk, the intervention group members were more likely to introduce peanut by age 12 months, with an odds ratio of 5.33 ($P < .01$; 95% CI = 4.48-6.35) with adjustment for high-risk infant status. Furthermore, with adjustment for high-risk status and family history of food allergy (including family history of peanut allergy), the intervention group members were more likely

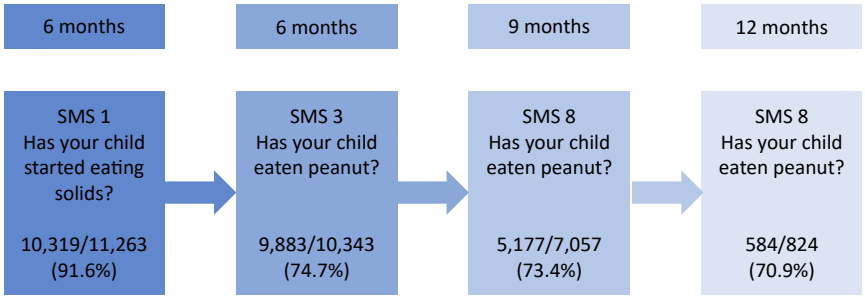

FIG 3. Response rates to text messages about peanut introduction in the intervention group.

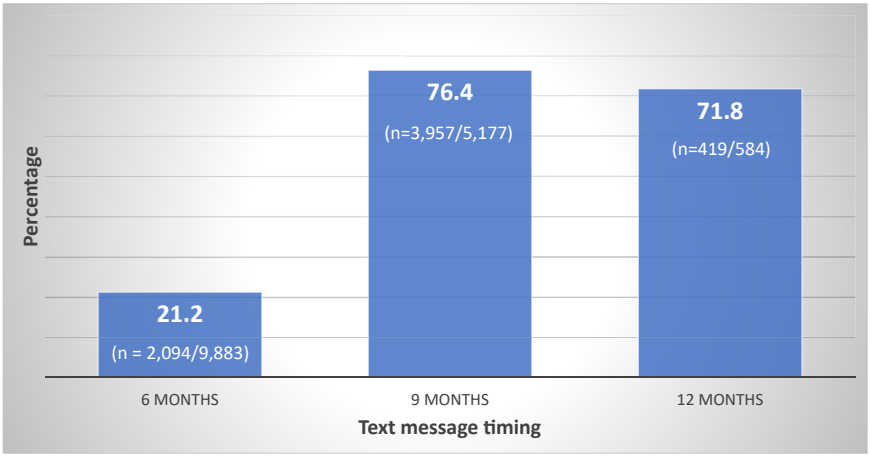

FIG 4. Percentage of parents who had introduced peanut in the intervention group in response to text messages received when their child was aged 6, 9, and 12 months.

TABLE II. Overview of responses to the online questionnaire relating to risk factors for increased risk of food allergy development

Risk factor	Intervention group, no. (%)*	Control group, no. (%)*
Eczema	1310 of 4516 (29.0%)	759 of 2426 (31.3%)
Severe eczema	104 of 3310 (3.1%)	224 of 1891 (11.8%)
Family history of atopy	1362 of 1737 (78.4%)	1813 of 2352 (77.1%)
High-risk infant†	1371 of 1589 (86.3%)	1843 of 2277 (80.9%)

*The intervention group reported eczema status when the children were aged 6 months; the control group reported eczema status when the children were aged 12 months.
†Based on severe eczema response.

to introduce peanut by age 12 months, with an adjusted odds ratio of 5.34 ($P < .01$; 95% CI = 4.48-6.37).

Analysis of hesitant parents in the intervention group

When their children were aged 12 months, 824 parents in the intervention group were considered hesitant parents (ie, they had not introduced peanut by the time their child was aged 9 months). Of the 824 who were messaged, 584 responded to the SMS message at 12 months and 71.75% (419 of 584) indicated that they had introduced peanut. Of those respondents who were considered hesitant (584), 54 were considered to have a high-risk infant, with 76.27% of them (45 of 59) indicating that they had introduced peanut.

DISCUSSION

This study showed SmartStartAllergy to be an effective tool in influencing parental introduction of peanut, including parents of infants considered to be at the highest risk of developing peanut allergy.

We found that 88.3% of parents in the control group had introduced peanut by the time their child reached age 12 months, which was similar to the findings of a previous SmartStartAllergy study, which reported a corresponding rate of 86.2%,[17] and the EarlyNuts study, which reported a rate of 88.6%.[20] However, this study suggests that intervention with SmartStartAllergy is effective as a public health tool in further encouraging peanut introduction, with 97.5% of parents in the intervention group introducing peanut by the time their child was aged 12 months.

According to the LEAP study, high-risk infants are more likely to benefit from peanut introduction in the first year of life.[6] Furthermore, infants who develop moderately severe eczema by age 6 months are more likely to develop food allergy.[21] Hence, it was important to determine whether SmartStartAllergy had any impact on the parents of high-risk infants. Our study shows that being in the intervention group increased parental

introduction of peanut by age 12 months regardless of the infant's level of risk. Furthermore, even where there was a family history of food allergy, parents in the intervention group were more likely to increase introduction of peanut by age 12 months. This is encouraging, as SmartStartAllergy has the potential to influence large numbers of parents, making it a useful public health tool communicating the message of early introduction of common food allergens to prevent food allergy.[17,22] A recent Australian study of 7209 infants comparing 2 Australian cross-sectional samples has shown that the prevalence of peanut allergy has decreased from 3.1% to 2.6%.[23] Although this difference is not statistically significant, we can be encouraged by the fact that the incidence of peanut allergy is not continuing to rise, as well as by the fact that public health messaging to introduce peanut early through tools such as SmartStartAllergy may be helping to stem the rise of peanut allergy and, potentially, other food allergies in Australia.

An Australian study has shown that the risk of anaphylaxis on first-time ingestion of a food is low regardless of infant risk.[24] Despite the evidence, parental hesitancy remains.[24] Parents who had not yet introduced peanut when their child was aged 9 months were considered hesitant. With regard to those parents who were potentially hesitant to introduce peanut, we found that SmartStartAllergy influenced most of them to introduce peanut by the time their child was aged 12 months. In addition, hesitant parents of high-risk infants were also highly influenced by SmartStartAllergy, with the majority who had not introduced peanut at 9 months introducing peanut by 12 months.

A previous randomized control trial (BabyEATS study), which sent monthly text messages to an intervention group to promote early introduction of food allergens, did not report an increase in early introduction of food allergens versus in the control.[25] So why was SmartStartAllergy effective as a tool? The key features of the SmartStartAllergy tool that may explain this are as follows: it acts as a parental reminder to introduce peanut through the 3 main points of contact (6, 9, and 12 months); it sends text messages encouraging peanut introduction supported by research; it promotes a credible website to parents to support parental peanut introduction; it provides messages from a credible source; and it collects information about parent-reported reactions and alerts the general practice. The fact that SmartStartAllergy is a parental reminder to introduce peanut is unlikely to be a key contributing factor to its success, as monthly text messages to parents in the randomized control trial did not significantly influence parental introduction of common allergens.[25] When a parent responds that he or she has not introduced peanut, SmartStartAllergy sends a text message indicating that there is evidence to support peanut introduction to prevent development of peanut allergy and a link to the NAITB website is provided. A previous study reported that a website providing information about infant feeding for allergy prevention containing the ASCIA logo would be considered credible by parents[16] and that web-based information is a preferred method of accessing information.[16,26] A key difference between the weblink provided by SmartStartAllergy and the BabyEATS study[25] is that the link provided by SmartStartAllergy is a link to the NAITB website, which was developed specifically for parents.[16] Furthermore, general practitioners were considered a useful source of information by mothers and partners, with 83.2% reporting that information coming from a trusted and reliable source is very important.[26] This same study also reported that being able to always access information (69.0%) and for free (68.6%) was also considered very important,[26] which supports providing information via a website link, as is done by the SmartStartAllergy tool.

Although this study has not reported the findings related to parent-reported reactions, a feature of SmartStartAllergy is that an alert to prompt medical follow-up is sent to the general practice if a parent reports reaction information indicative of anaphylaxis. The EarlyNuts study reported allergic reaction rates of 4.0%,[20] indicating that medical follow-up of parent-reported reactions is warranted. Hence, SmartStartAllergy has the potential to act as both a public health messaging tool and a surveillance tool.[17]

Although SmartStartAllergy showed promising results, we need to consider its limitations. The greatest limitation is the incomplete questionnaire data. Although the response rate to the text messages was high, the overall response rate to the questionnaire was low, and even when parents chose to respond to the survey, the responses to some questions or components of questions were incomplete. Limiting analysis to complete responses reduces the number of responses included in the analysis, and this can affect the analysis on account of low power. Furthermore, because of the dynamic nature of the tool (ie, parents in the intervention group receive the SMS messages and sections 1 and 2 of the questionnaire at 3 time points [6, 9, and 12 months]), the denominators will change, as some parents will choose not to respond at some time points but respond at others.

The rate of eczema reported by parents in this study (29.8%) was similar to that reported in the HealthNuts study (28.0%)[27]; however, SmartStartAllergy did not collect information about nonresponders; hence, it was difficult to determine whether there was a participation bias in our study. Furthermore, the response rates to some questions were low, which might have resulted in selection bias. Potential factors that may have influenced parents to respond include being allergy focused and manifesting a desire to please their general practitioner, as messages came from their general practice; in addition, as practices using SmartStartAllergy were using SmartVax, parents with prior experience using SmartVax may have been more likely to respond to SmartStartAllergy.

It is important to note that SmartStartAllergy does not collect any information regarding whether the parents continue to include peanut in their infants' diets once introduced or how regular consumption was. A key outcome from the LEAP[6] study and a follow-up study[28] is that peanut should continue to be fed regularly for at least 5 years. The EarlyNuts and BabyEATS studies collected information regarding frequency of consumption, thereby providing valuable insight as to whether, peanut is kept in the infant's diet once it has been introduced.[20,25] The SmartStartAllergy program has the ability to collect follow-up information, and this would be a useful addition to the tool. Furthermore, SmartStartAllergy does not currently collect information about whether parents click on the weblink to the NAITB website that is provided in the text messages. Capturing information about what proportion of parents in the intervention group accessed the NAITB website and at what stage (6, 9, or 12 months) would provide greater insight into the factors influencing parental introduction of peanut. In addition, although the SmartStartAllergy tool collects information on parent-reported reaction, it does not collect information relating to nut introduction and choking. Given the reported increase in rates of peanut and tree nut aspiration since the LEAP study was published,[29] this would be a simple and valuable addition to the online questionnaire.

Other factors for consideration include the study design itself. How general practices were assigned as intervention and control

was based on the piloting and rollout of the NAITB project; however, having intervention and control cases randomly assigned nationally rather than only in specific states may yield different results. In addition, SmartStartAllergy relied on parents using a smartphone and their willingness to share their number with their general practice and respond to the SmartStartAllergy text messages, which may incur a cost to them. Another consideration is the cost of developing and implementing the SmartStartAllergy tool on a population level. SmartStartAllergy sent multiple text messages at each stage of the intervention, and to reduce costs, streamlining of the SMS message protocol may be required. Finally, the amount of scam text messages in the community has increased and may influence potential parental engagement.

Conclusion

SmartStartAllergy appears to be an effective tool for encouraging parents to introduce peanut by the time their child is aged 12 months. The ability to provide parents with credible information about infant feeding for allergy prevention, as well as the capacity to collect simple responses via text along with additional information through an online questionnaire, make this a useful public health tool. Further refinement and expansion of the SmartStartAllergy tool could assist with monitoring parental infant feeding practices in relation to common food allergens in addition to capturing information regarding utilization of the NAITB website.

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Key messages

- **A novel smartphone-based tool can help increase parental introduction of peanut in infants.**
- **After adjustment for family history of atopy and food allergy and the infant's risk of developing a food allergy, SmartStartAllergy can increase adherence with infant feeding for allergy prevention guidelines.**

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