# "Thinking Outside the Pamphlet:

# An Amazing Story about Joey the Kangaroo Reaching America's Most Vulnerable Children"

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## Introduction

One in six children in the United States has a developmental disability,1 and less than half will be identified before they start school.<sup>2,3,4</sup> As a result, opportunities for early intervention are missed and future childhood development can be compromised.

Parents and pediatricians can play a crucial role in the early identification of developmental delays. Research has shown that parents' concerns about their children's development are generally predictive of developmental delays. Efforts to raise parents' and pediatricians' awareness of developmental milestones can increase

the likelihood that developmental disabilities are identified early and children are connected with appropriate services and support.<sup>5</sup>,

<sup>1</sup>Centers for Disease Control and Prevention (2012). Data and Statistics. Available at http://www.cdc.gov/NCBDDD/

<sup>2</sup> Mackrides, P and Ryherd, S., (2011). Screening for Developmental Delay. American Family Physician. 2011 Sep 1; 84(5):544-549. Available at http://www.aafp.org/afp/2011/0901/p544.html#afp20110901p544-b12 <sup>3</sup>Glascoe, F.P., (2005). Screening for developmental and behavioral problems. *Mental Retardation and Developmenta* 

<sup>4</sup>Brothers, K.B., Glascoe, F.P., Robertshaw, N.S., (2008). PEDS: developmental milestones—an accurate brief tool for surveillance and screening. Clinical Pediatrics (Phila). 2008; 47(3):271–279.

Developmental

n Appendix

Milestones included

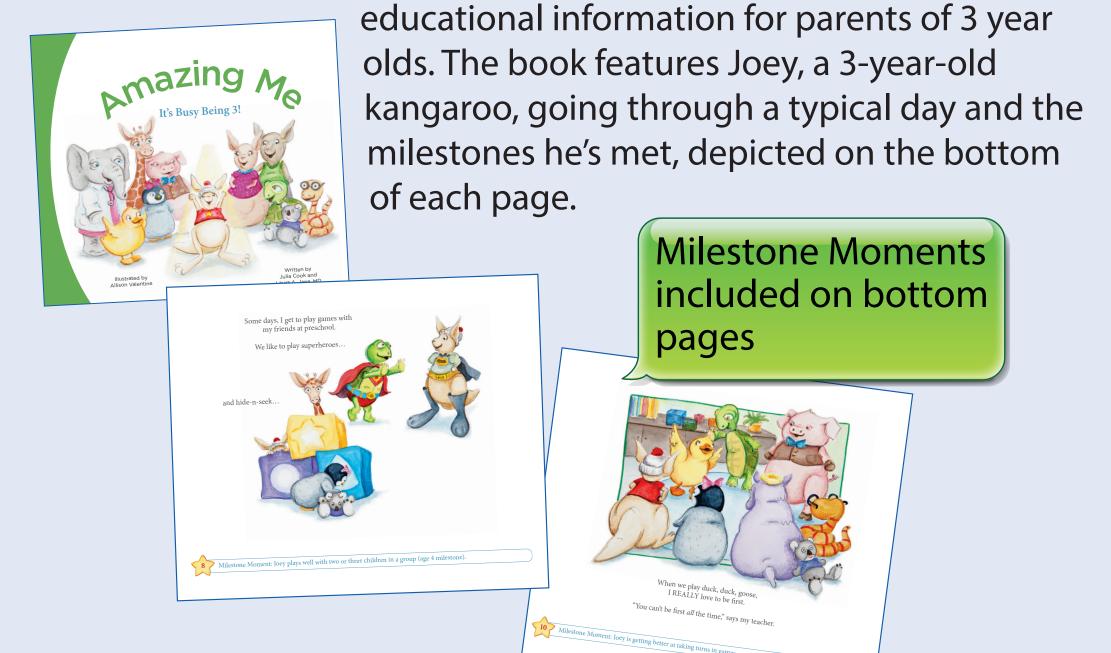
<sup>5</sup> Squires J, Nickel R, Eisert D. 1996. Early detection of developmental problems: Strategies for monitoring young children in the practice setting. Journal of Developmental and Behavioral Pediatrics. 17. 420-427. <sup>6</sup>Glascoe, F.P., (1997). Parents' concerns about children's development: Prescreening technique or screening test. Pediatrics 1997: 99: 522-528

## Background

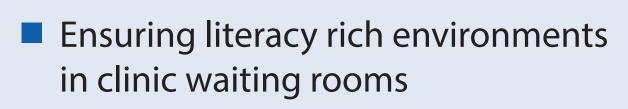
The Centers for Disease Control and Prevention's (CDC) "Learn the Signs. Act Early." campaign seeks to improve early identification of children with developmental disabilities. The campaign encourages parents to:

- Learn the signs of early childhood development
- Talk to their doctor about their child's development
- Act early if there is a concern

As part of this campaign, CDC developed Amazing Me: It's Busy Being 3! Amazing Me uses a children's picture book format to provide



In 2012, CDC partnered with Reckitt Benckiser (makers of Lysol®) to print 100,000 copies of Amazing Me and Reach Out and Read (ROR) to distribute 75,000 copies to parents. ROR promotes early literacy among low-income families by distributing children's books through its network of participating clinics. Participating clinics incorporate the ROR model into regular pediatric checkups by:



- Giving each child ages 6 months through 5 years a new book at each well-child checkup
- In exam rooms, having trained health care providers speak with parents about the importance of reading aloud.

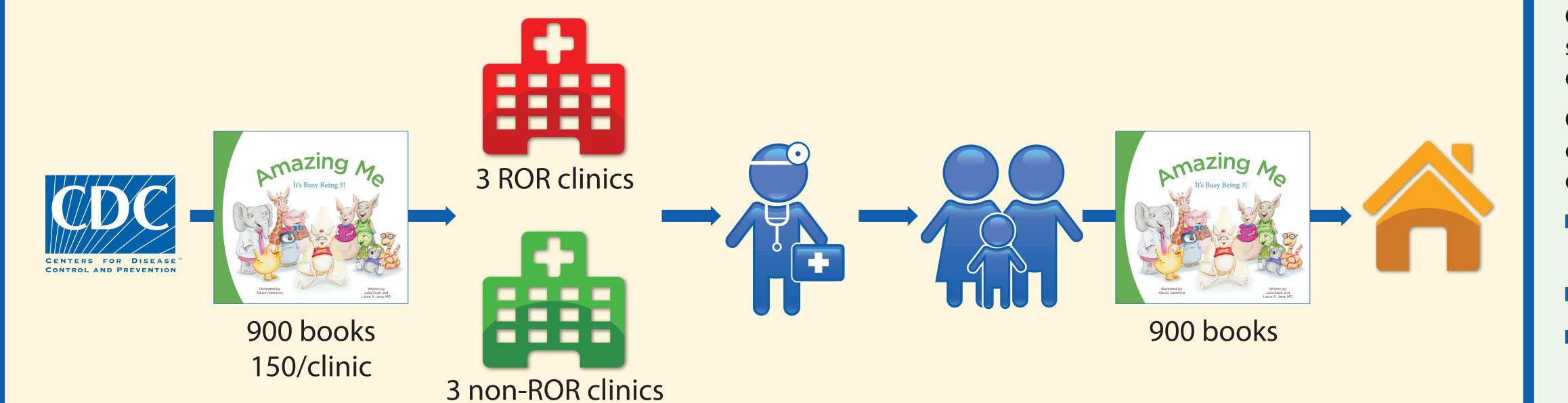
During Phase I of this study, ROR clinics that received Amazing Me books responded to an online survey to assess the feasibility of distributing the books through ROR. The survey found that Amazing Me books were successfully distributed and well received by parents and providers. These findings suggested that pediatric settings, such as ROR clinics, are a viable distribution channel.

## **Evaluation Methods**

Phase II of this study sought determine if Amazing Me books can be successfully distributed in non-ROR settings as well. Three ROR and 3 non-ROR clinics in Atlanta, GA and the Washington, DC area received 150 copies each to distribute to parents of 3-year-olds.

Using a model similar to ROR, providers were asked to review Amazing Me books with parents as part of the well-child exam and encourage parents to take the book home and monitor their child's development, using *Amazing Me* as a guide.

## 900 Amazing Me books given to 3 ROR and 3 non-ROR clinics to distribute to parents of 3-year-olds between January and August 2014



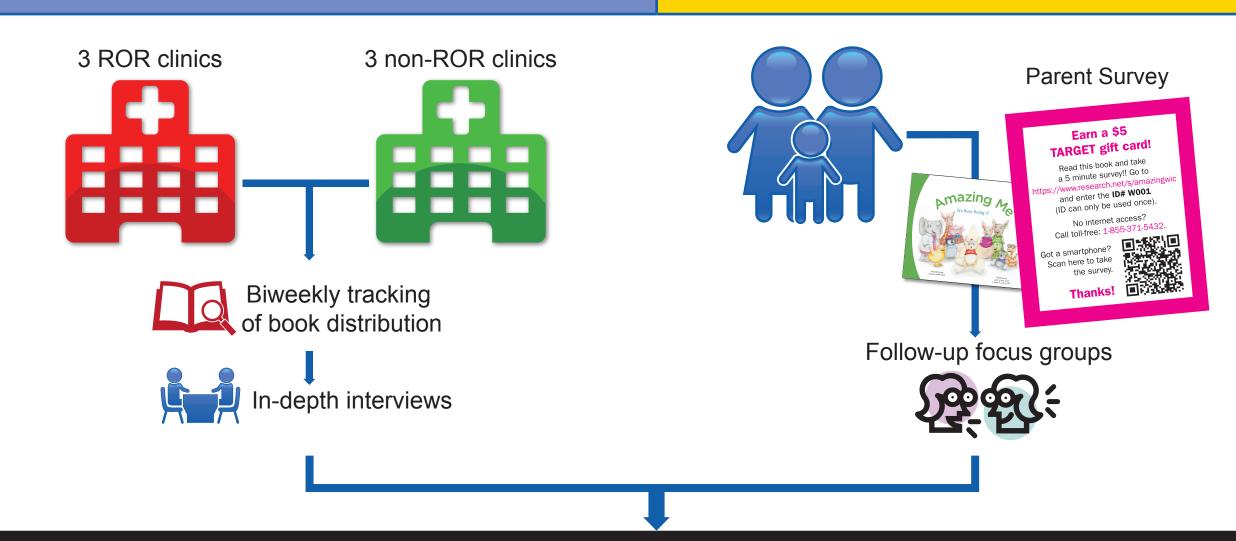
## **Data Collection**

Feedback gathered from clinics regarding their experiences distributing and sharing Amazing Me books and from parents regarding their experiences receiving Amazing Me as part of a well-child visit. Book's influence on parents' awareness, attitudes, and self-efficacy regarding monitoring developmental milestones also assessed.

#### Clinics Bi-weekly tracking of book distribution (January-August 2014) In-depth interviews with clinic administrators (N=6)

#### **Parents** 29-item survey, accessed using a URL or toll free number attached to each book distributed (N=900)

Sixty-minute follow-up focus groups (N=6; one per clinic)

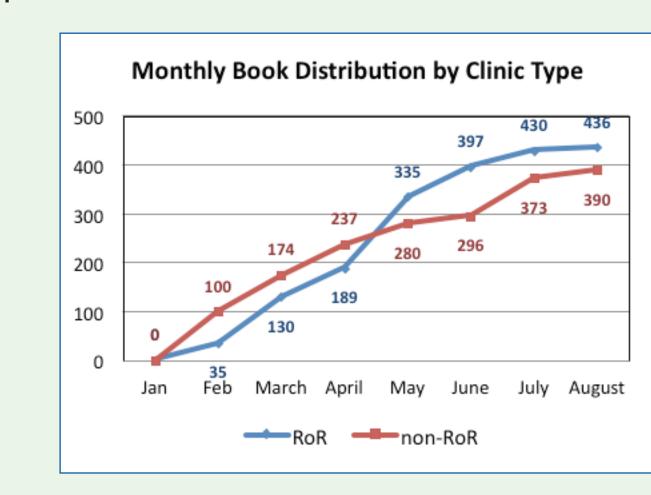


- 826/900 books distributed (92%)
- Six in-depth interviews with clinic administrators (5 of whom are physicians)
- 68/826 parent online surveys completed (8.2% response rate):
- ☐ Clinic Affiliation: 57% ROR, 43% non-ROR
- ☐ Gender: 95% female
- ☐ Race/Ethnicity: 44% Caucasian, 31% African American, 13% Hispanic, 6% Asian, 1.5% Asian Pacific Islander
- ☐ Age: Majority (87%) between ages 21 and 40
- Education: 13% high school diplorma or less; 27% some college; 49% college degree or higher
- ☐ Household Income: 32% <\$32,000, 21% \$25,000-\$50,000, 44% \$50,000+ Six follow-up focus groups (17 participants)

## Findings

## Do practices deliver Amazing Me to parents of 3-year-old children?

Across all clinics, 92% of the books received (826 out of 900) were distributed to age eligible children; ROR clinics outperformed non-ROR clinics.



## How do practices deliver Amazing Me to parents?

Clinics were successful in identifying age-eligible children to receive *Amazing Me* and used similar strategies: reviewing patient appointments each day and flagging the records of ageeligible children.

Clinics faced greater challenges **integrating** *Amazing Me* into the pediatric exam. Only 50% of parents received *Amazing Me* from their child's doctor. Three clinics (1 ROR and 2 non-ROR) deviated from the distribution guidelines:

- Clinics relied heavily on other staff (e.g., medical assistants and office managers) to distribute **and** discuss *Amazing Me* with parents.
- Clinics typically distributed Amazing Me prior to or near the end/after exams, to save time.
- Providers played a supporting role rather than a leading role in discussing Amazing Me with parents: followed-up with parents about *Amazing Me* but did not initiate discussion.

## What facilitates or prevents practices from delivering Amazing Me to parents?

## **Facilitating Factors:**

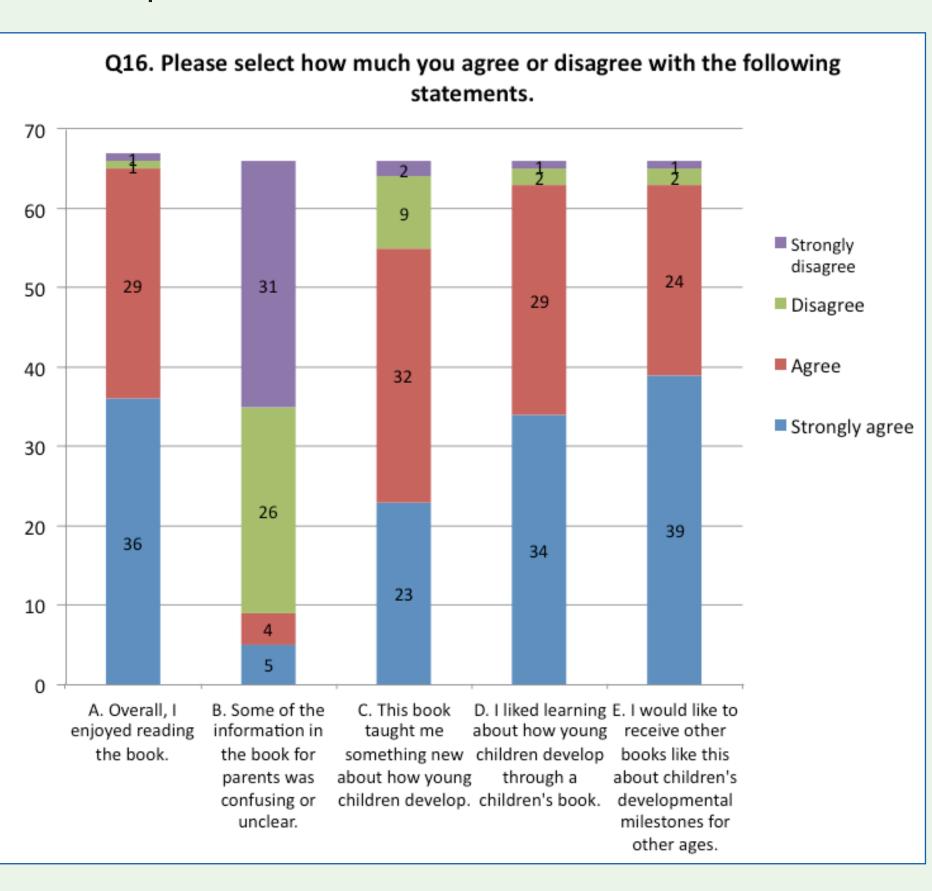
- ROR model: ROR clinics distributed *Amazing Me* as they do other ROR books, therefore, Amazing Me "fit well" in clinic operations.
- All clinics leveraged existing staff, often medical assistants, to facilitate book distribution. **Barriers:**
- Providers (especially in non-ROR clinics) sometimes forgot to discuss Amazing Me with parents during the exam, especially on busy clinic days.
- Lack of a consistent, onsite "champion" to support *Amazing Me*, ensure fidelity to distribution guidelines.

Do parents report receiving Amazing Me from their pediatric office? Do parents report bringing Amazing Me into their homes?

All parents confirmed on the online survey (N=68) that they received *Amazing Me* at their pediatrician's office and brought it home.

## Do parents report reading Amazing Me themselves and/or to their child/children?

All parents (N=68) read Amazing Me themselves and all but 2 read it to their child. Overall, parents and their children responded very favorably to Amazing Me and enjoyed receiving the book from their child's provider:



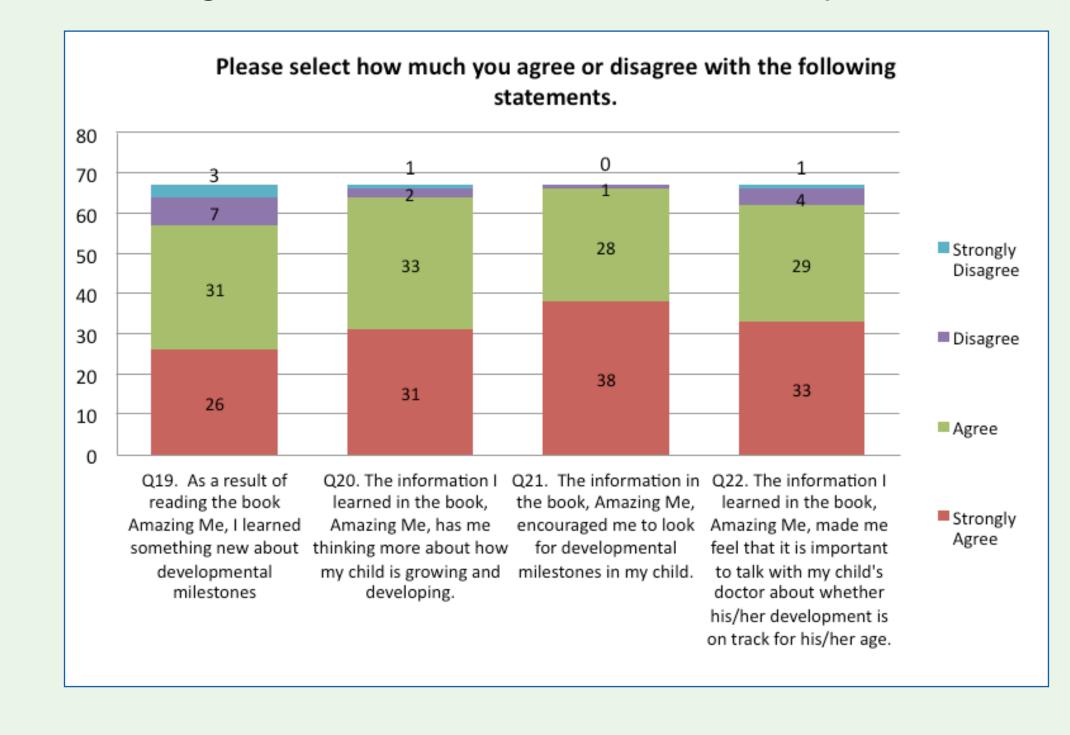
"I thought it was unique, because, I mean we look at a lot of books, and I hadn't seen one quite like this one, so I did like that part that to me it involved the kid and the parent. It was teaching the parent, too, what we could look for." —parent, Atlanta, GA (non-ROR clinic

"... normally when you go to the doctor's office, they will give you a sticker or lollipop and say 'Have a nice day.' But that was shocking when the actual nurse handed me the book and she said 'you need to read this to your child.' I'm like, oh, ok, something new."

—parent, Baltimore, MD (ROR clinic)

Does reading Amazing Me increase parents' awareness of developmental milestones? Does reading Amazing Me influence parents' attitudes about monitoring developmental milestones?

Parents overwhelmingly felt that *Amazing Me* raised their awareness about developmental milestones and encouraged them to monitor their child's development:



Parents also felt *Amazing Me* raised their awareness about developmental milestones they had not previously considered:

"I learned a couple of [new]things from it. One very specific thing, which I mean I feel a little ridiculous even saying it, one of the first pages was just talking about that your 3 year old should be able to dress them self, and that's something that we really hadn't worked on that much. And after getting the book we started working on that.

—parent, Atlanta, GA (ROR clinic)

## Do parents feel that reading Amazing Me improves their ability to monitor developmental milestones?

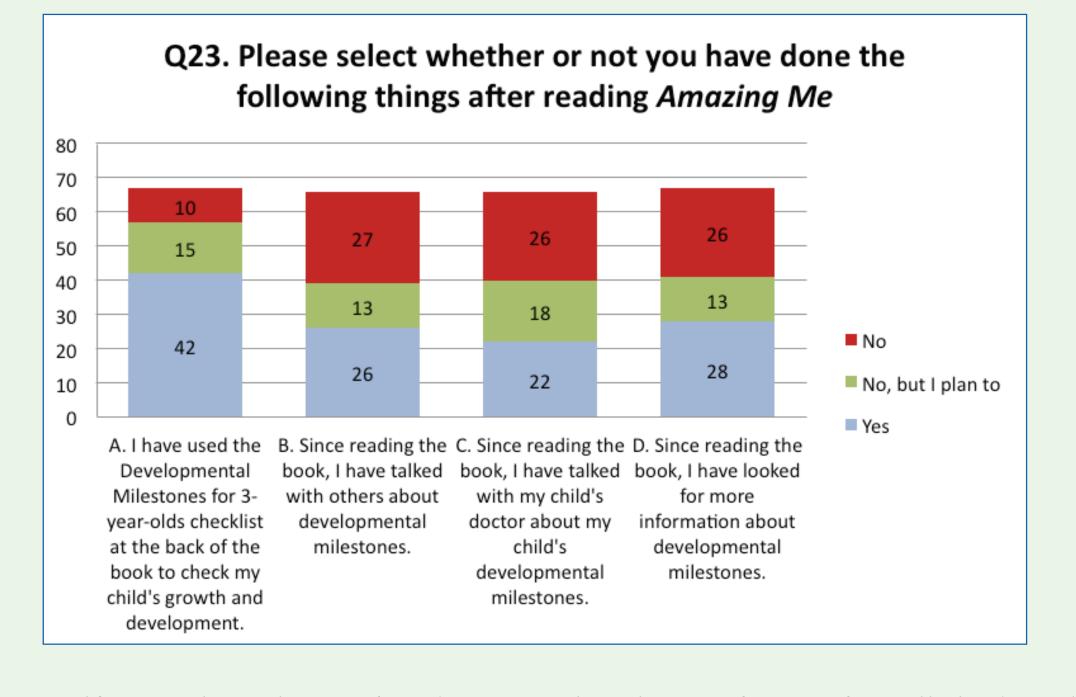
Sixty-three percent of parents used the Developmental Milestones checklist to assess their child's development. Parents also felt *Amazing Me* made them feel more confident in their ability to monitor their child's development:

"I think this book made me more confident, because there were some things that, because this is my first child, so I didn't know that I should be looking for, for someone her age. I'm just looking on page twenty seven, shows a section...'shows concern for a crying friend.' And I didn't know, that was kind of things that I should be looking for..."

—parent, Atlanta, GA (ROR clinic)

## Do parents take any action as a result of reading the book?

Amazing Me was most effective at encouraging parents to use the Developmental Milestones checklist provided and seeking additional information about developmental milestones.



"I actually saw myself going through it and making sure that she can do it and I will check it all when she did it. Some things she didn't do but I will go back to it later on... So as I've seen her do, I would check it all." —parent, Washington, DC (non-ROR clinic)

## **Implications**

- Phase I and II findings demonstrate that *Amazing Me* can be successfully delivered in pediatric settings. Both ROR and non-ROR clinics can utilize existing infrastructure and resources (e.g., medical assistants, office managers, and electronic health records) to deliver the book to parents.
- Amazing Me fits very well in the ROR model and CDC should continue, if not expand, its partnership with Reach Out Read to facilitate distribution. For non-ROR clinics, CDC should explore opportunities to partner with large health care organizations to provide the additional resources and support needed to help clinics deliver *Amazing Me* to parents.
- Amazing Me is well received by providers: "We absolutely would continue giving them [Amazing Me] books out. And like the parents, I would love to see them available for 18 months to two, two and a half, up to 3. That would be four visits [that we could give a book out]"

—physician, Atlanta, GA (ROR clinic)

- Clinics often distributed Amazing Me before the exam to save time and allow parents to read the book so they could ask questions during the exam. CDC should consider these changes if it will encourage more clinics to distribute Amazing Me.
- Amazing Me is well received by all parents, regardless of clinic setting (i.e., ROR vs. non-ROR). Parents enjoyed the book, found it useful, and would like providers to continue distributing Amazing *Me* to parents:

Giving out Mikestone Books are great. I think that these books should be given before or after the visit. ( when the doctor's is done) while the content waiting If a child is sick and waiting in the



