

SmartMom: Teaching by Texting to Improve Perinatal Outcomes



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MOVES 22

SmartMom

- In Canada, less than one third of parents attend prenatal education classes.
- Barriers include geography, socioeconomic status, age, education, and Indigenous status

PRENATAL EDUCATION

Attendance at prenatal education classes has been associated with positive health behaviours:

- appropriate weight gain
- attendance at prenatal care
- acceptance of routine screening tests
- smoking and alcohol cessation or decreased consumption
- breastfeeding

Adoption of these behaviours has been associated with reduced rates of:

- cesarean birth
- preterm birth
- low birthweight

GAPS IN PRENATAL KNOWLEDGE

- A 2009 study in Toronto reported that 80% of survey respondents believed that an influenza vaccine given during pregnancy caused birth defects.
- Ontario population-based survey with a 93.6% response rate indicated that only 25% of respondents had been informed that there are risks associated with inappropriate weight gain during pregnancy.
- An overview of 370 apps found through the Google Play Store reported that only three apps documented having a scientific board.

WHAT IS SMARTMOM?

SmartMom is Canada's first prenatal education program that sends women text messages to:

- Provide information
- Link to evidence-based sources of online information
- Suggest topics of conversation with providers
- Direct women to local resources

Have you started taking a prenatal vitamin? Folic acid protects against birth defects. Ask your health unit if you qualify for free vitamins.
<http://bit.ly/1WhfnjL>

Do you know why eating deli meats or soft cheese is not advised?
<http://bit.ly/1gL8Fm5>

Your body knows how to nourish and grow your baby. Keep up the good work! You are giving your baby the best start to life!

LINKS IN MESSAGES



The Greenwoods: "I want my kids to make good choices for their whole lives", says Michelle.

Written by Elaine O'Connor

Great beginnings

14/04/2016 9:00:00 AM | 0 comments | 5

10 TIPS TO GROW HEALTHY KIDS

Give your child the gift of health for life. Start them on healthy habits early. Here's how to make it easy.

- LIVE 5-7-1-0**
Live the 5-2-1-0 rule: Each day eat 5 fruits and vegetables, limit screen time to 2 hours, get 1 hour of exercise and drink 0 sugary drinks.
- MAKE EXERCISE FUN**
Get your family outdoors to play. Sign up to soccer five days 5-2-1-0 playground with sports gear at Abbotsford, Chilliwack, Hope, Lake British, etc.
- EAT WELL**
Make good nutrition a priority. Ensure your family has a routine set their plates. Eat whole foods and follow Canada's Food Guide.
- GET MOVING**
Get expert advice and access an action plan for becoming more active at any age by visiting BC's New Physical Activity Link.
- CONSULT THE EXPERTS**
Review a family physician, dentist, optometrist and other key health care providers for your child and follow preventative education.

Putting your child on the path to health for life: from their first years to their golden years.

Chilliwack's Michelle Greenwood always considered herself the picture of health. The 40-year old mother of two hits the gym regularly, started running 10Ks in her 20s and enjoys boot camp fitness classes. Since childhood, she'd eaten an apple a day with lunch and rarely had a meal without fruits or vegetables.

So when Michelle was diagnosed with gestational diabetes while carrying her second child, it came as a shock. Her high blood sugar levels – a precursor to diabetes – persisted after the birth. Her family doctor cautioned her to pay even closer attention to her diet and exercise. "It was definitely a big reality check for me," she recalls. "I always thought I was pretty healthy, but it made me realize that some of the things I thought were healthy, like white bread and rice, were

WHY DID WE DEVELOP SMARTMOM?

SmartMom was developed in response to a request from the Northern Health Perinatal program to develop an accessible means of providing prenatal education.

Messages are based on current peer-reviewed research. They are tailored to week of pregnancy and include links to websites, phone numbers and videos on topics such as fetal growth and development, options for screening in pregnancy, and preparation for labour and delivery.



SmartMom has been endorsed by the SOGC

HOW DOES SMART MOM CHANGE PRENATAL EDUCATION?

SmartMom is delivered **free**. It costs nothing to sign up and messages are sent to clients free of charge.

Prenatal education is **available to everyone**. More women have access to text messages than the internet.

SmartMom is **interactive**. . Women take quizzes, learn to count calories and calcium intake, and practice position changes and labour and coping strategies with videos.

SmartMom can be **tailored to individual needs**. Women can opt to receive supplemental messages for individualized concerns, e.g. smoking cessation.

HOW IS SMART MOM BEING IMPLEMENTED?

Northern Health

Tear off sheets in clinics and public health settings



SmartMom

To Enroll:
Text "Northern" to 12323
or visit
www.smartmomcanada.ca

SmartMom

- Texts you information to help guide you through every week of your pregnancy.
- Texts are tailored to your due date.
- All information is free and from health sources you can trust.

Texts link you to websites and videos on:

- How your baby is growing
- The important choices you'll face
- How to manage your labour



Local care providers receive enrollment guides



SmartMom

Enrollment Guide

Tips for Supporting Enrollment

- Draw attention to the SmartMom poster (Document Source #10-030-6116) and provide this key information:
 - SmartMom is a prenatal education program that texts you information to help guide you through each week of your pregnancy.
 - All of the information is free and from health sources that you can trust, such as the Ministry of Health.
 - Messages will include links to websites, phone numbers and videos on topics, including how your baby is growing, the important choices you'll face, and how to manage your labour.
 - With SmartMom in your pocket, you'll have an information guide, a prenatal cheerleader, and a record of topics you might want to discuss with your care provider.
- Provide clients with a SmartMom tear off sheet (Document Source #10-030-6116D) or include one in all client prenatal information packages.





SmartMom is a free text messaging program that sends you information timed to your stage of pregnancy to help you achieve healthy pregnancy and birth.

SmartMom is also your local and online guide to services and programs available to support you.

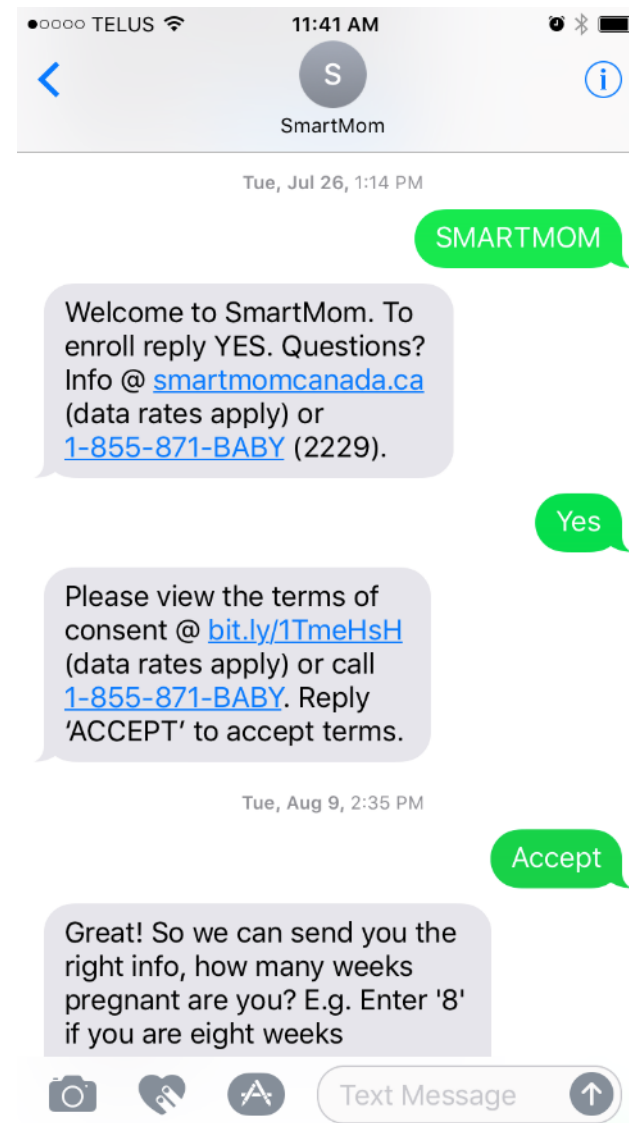


Contact Us



HOW TO ENROLL ON THE PHONE

- 1) Text “SmartMom” to 12323
- 2) Reply “Yes” to enroll
- 3) View Terms of Consent or call the toll-free number. Reply “Accept”
- 4) Enter gestational age



HOW TO ENROLL ON OUR WEBSITE

The screenshot shows a web browser window with the URL www.smartmomcanada.ca. The page features a green header with the "SmartMom" logo and social media icons for Facebook and Twitter. Below the header are navigation links: "Learn More | Enroll Now | Sign In". The main content area is a collage of four images: a pregnant woman holding a smartphone, a woman holding a baby, a family walking in a field, and a woman kissing a baby. Two text boxes are overlaid on the images:

SmartMom is a free text messaging program that sends you information timed to your stage of pregnancy to help you achieve healthy pregnancy and birth.

SmartMom is also your local and online guide to services and programs available to support you.

At the bottom of the page, there is a green footer containing copyright information: "© 2016 SmartMom Mobile Health Education. All rights reserved. SmartMom™ is a registered trademark in Canada." and navigation links: "FAQ | About Us | Terms of Consent | Contact Us".



CONNECTING TO COMMUNITY RESOURCES

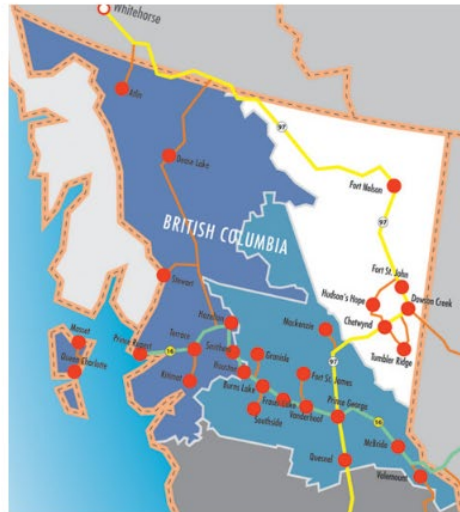
SmartMom



[Learn More](#) | [My Profile](#) | [Resource Locator](#) | [Messages](#)

Resource Locator

Click anywhere on the image for local pregnancy and baby resources near you.



Community Contacts

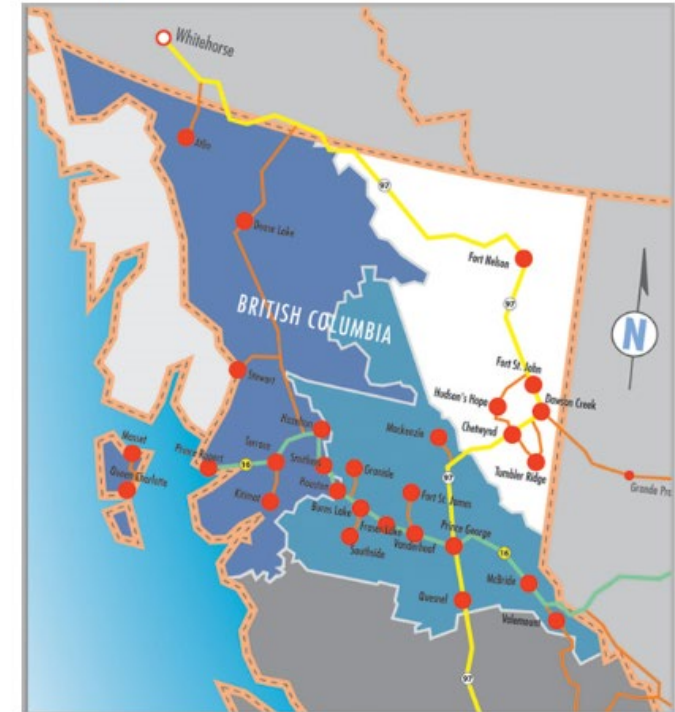
Contact Us > Community Contacts

Community Contacts

- Atlin
- Burns Lake and Granisle
- Chetwynd
- Dawson Creek
- Dease Lake
- Fort Nelson
- Fort St John
- Fraser Lake, Fort St. James and Vanderhoof
- Haida Gwaii
- Hazelton
- Houston
- Hudson's Hope
- Kitimat
- Mackenzie
- McBride
- Prince George
- Prince Rupert
- Quesnel
- Smithers
- Stewart
- Terrace
- Tumbler Ridge
- Valemount

Facilities

Community Contacts



SUPPLEMENTAL MESSAGES

- Smoking
- Alcohol/Substance use
- Depression
- Planning a vaginal birth after a previous cesarean delivery
- Weight management/Nutritional support
- Pregnancy loss
- New Immigrants
- > 35 Years
- Exposure to Violence

Do you have questions about smoking and pregnancy? Join the discussion @ bit.ly/1LDLTqQ

Mood swings are normal during pregnancy – how mild or intense are your symptoms? Find out if depression is beginning @ bit.ly/1OGWcil

WHY WOULD TEXT MESSAGES CHANGE BEHAVIOUR?

Social Cognitive Theory

Modeling healthy behaviours through messages promotes self-efficacy

Health Belief Model

Text messages serve as a cue to action with salient information providing just-in-time tips

The Theory of Planned Behavior

Beliefs and attitudes change when messages are received at the point of decision-making.



WHAT DO WOMEN SAY?

“The information from SmartMom is better than any other baby app I’ve signed up with. You get very localized information to read versus mass amounts of tips. I like that I can sit down and read just one tip. I am a busy mom with a busy toddler so simple messaging is important for me.”

”[SmartMom] is a reliable source and you can trust that. When you go to Google, you can find anything. It [the Internet] is very scary sometimes. But if you have a reputable text and you know where it’s coming from and you trust the source, then you’re more likely to go to that resource and believe it and seek it out.”

“I like that the one text was about making a list [of questions]. Because when you do have your prenatal appointments you maybe would feel a bit more prepared with some questions, things that had been brought up in the text messages. As opposed to trying to think of all the things that you want to ask your doctor at your one appointment. Because it’s not easy to just go in and ask a question, right?”

WHAT DO CAREGIVERS SAY?

“I see a lot of prenatal women in early pregnancy, and many are already using a variety of pregnancy phone apps. While I know that some of that information is accurate, it’s helpful for me to have an evidence-based resource to offer these moms!” **Stephanie Cardinal, RN, BSN, Primary Care Nurse, Vanderhoof BC**

“SmartMom is a great service! It has clear messaging for moms to share with their families. With everyone...using smartphones, it is very convenient. Since it is portable, women are not dragged to a computer to look up information. As a nurse, I am pleased with this option for self-education. It is empowering for women to get the information on their own.” – **Pene Bethelsen, Primary Care Nurse in Fort St. James**

SmartMom Evaluation

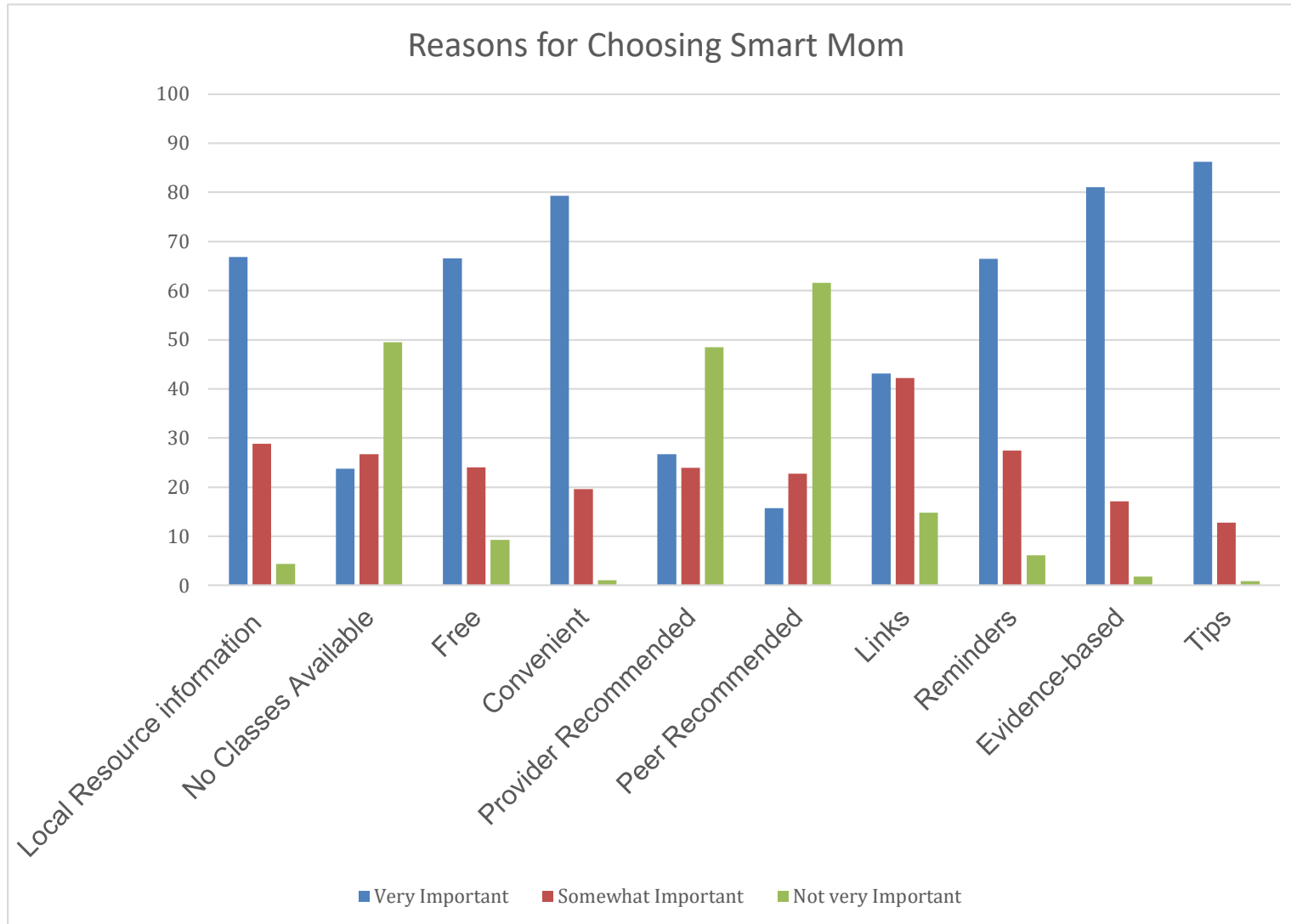
Maternal Age	%
15-18	0.8
19-24	7.2
25-29	24.1
30-34	40.9
35-39	27

Ethnicity	%
European	51.1
Indigenous	5.0
East Asian	14.3
South Asian	16.1
Other	19.5

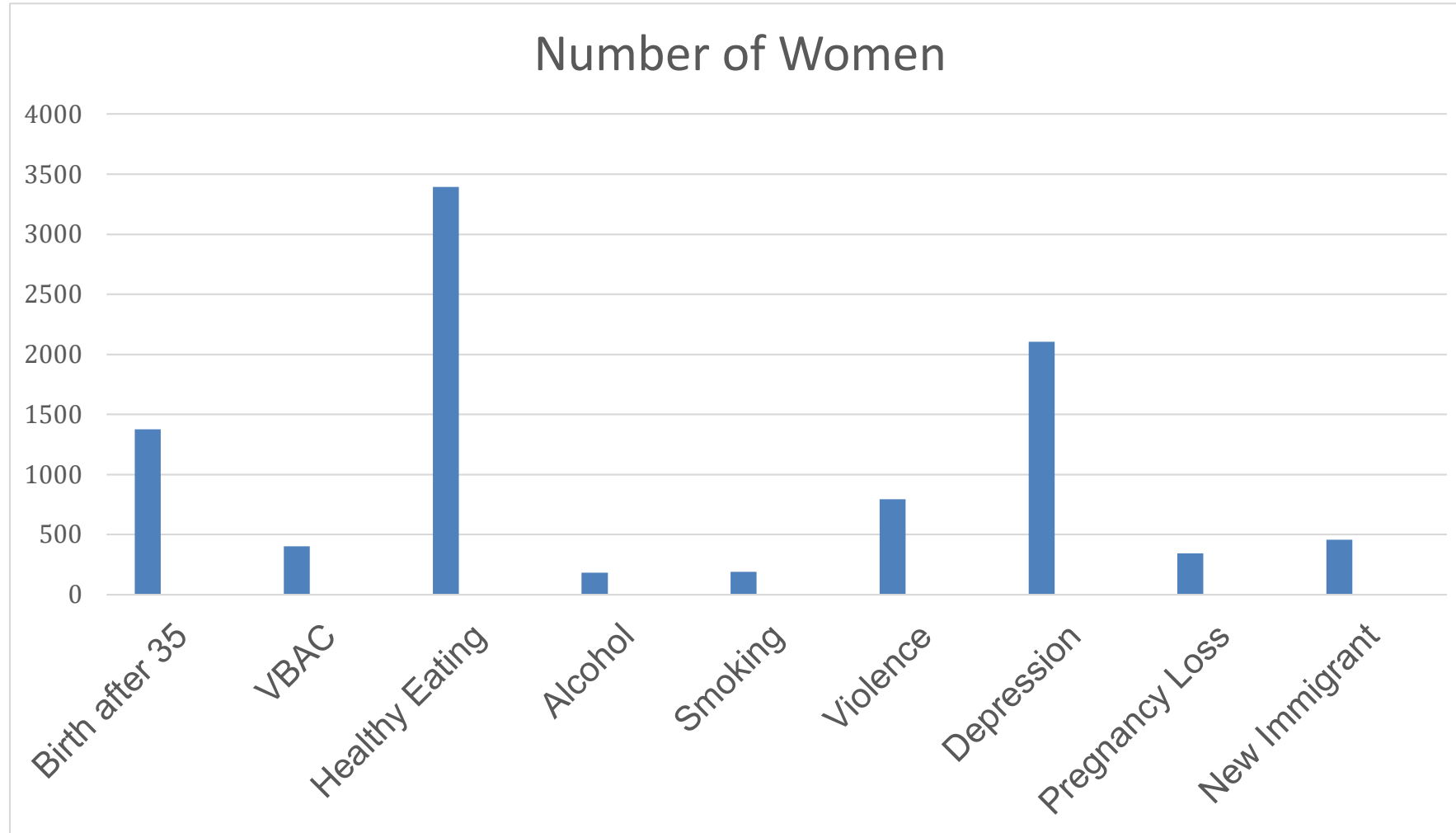
10,000 participants have enrolled
4,000 have completed surveys
75.6% of respondents were nulliparous.
5.2% were single parents.

Education	%
Less than Grade 12	2.2
Grade 12	8.2
Technical/Trades or College Diploma	18.9
Some University	8.7
University Degree or Higher	62.0

SmartMom Evaluation

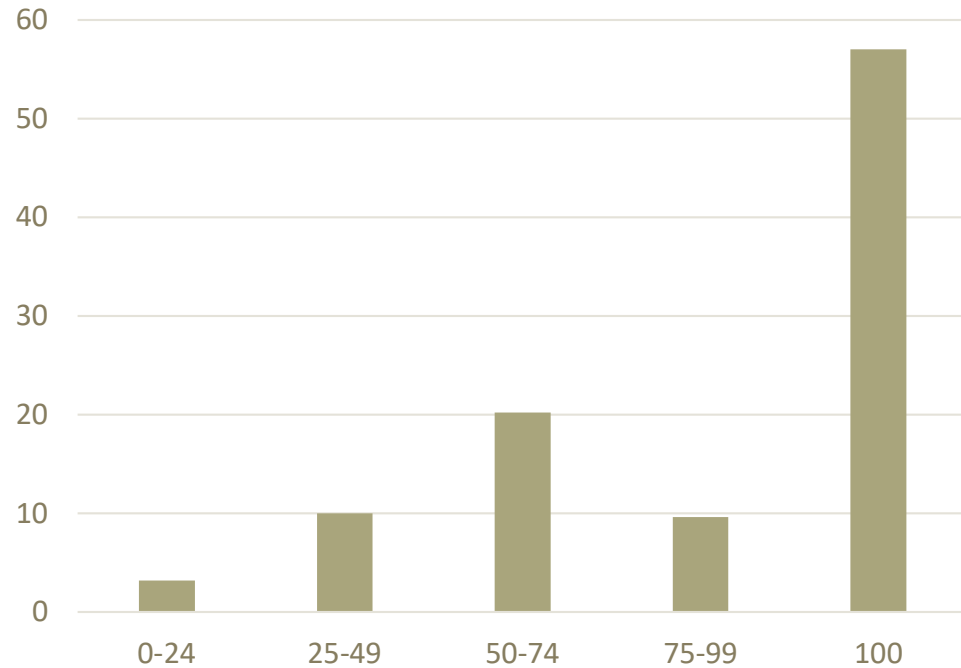


Supplemental Streams

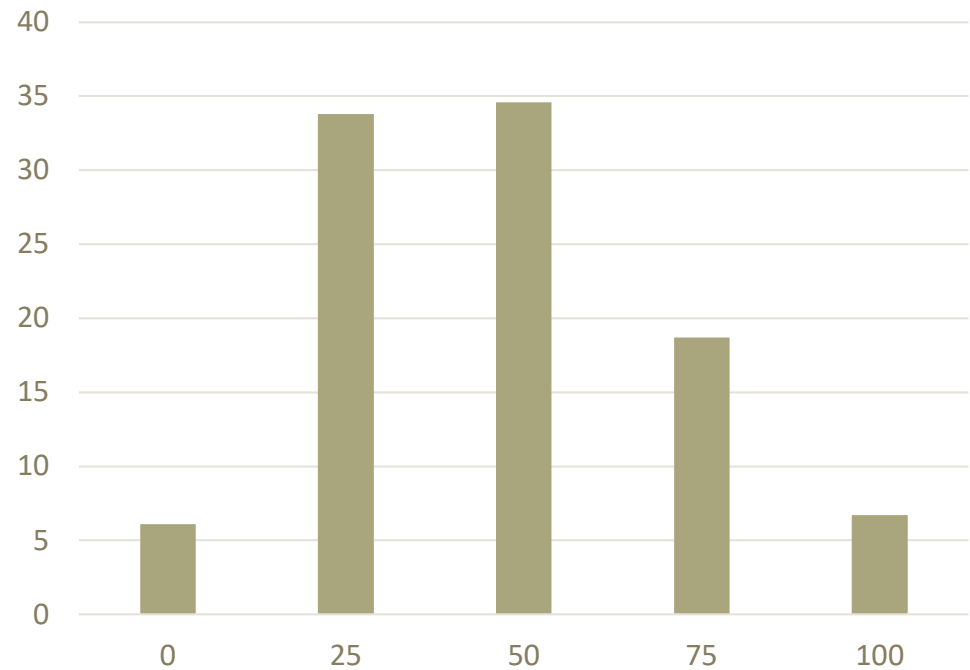


SMARTMOM EVALUATION

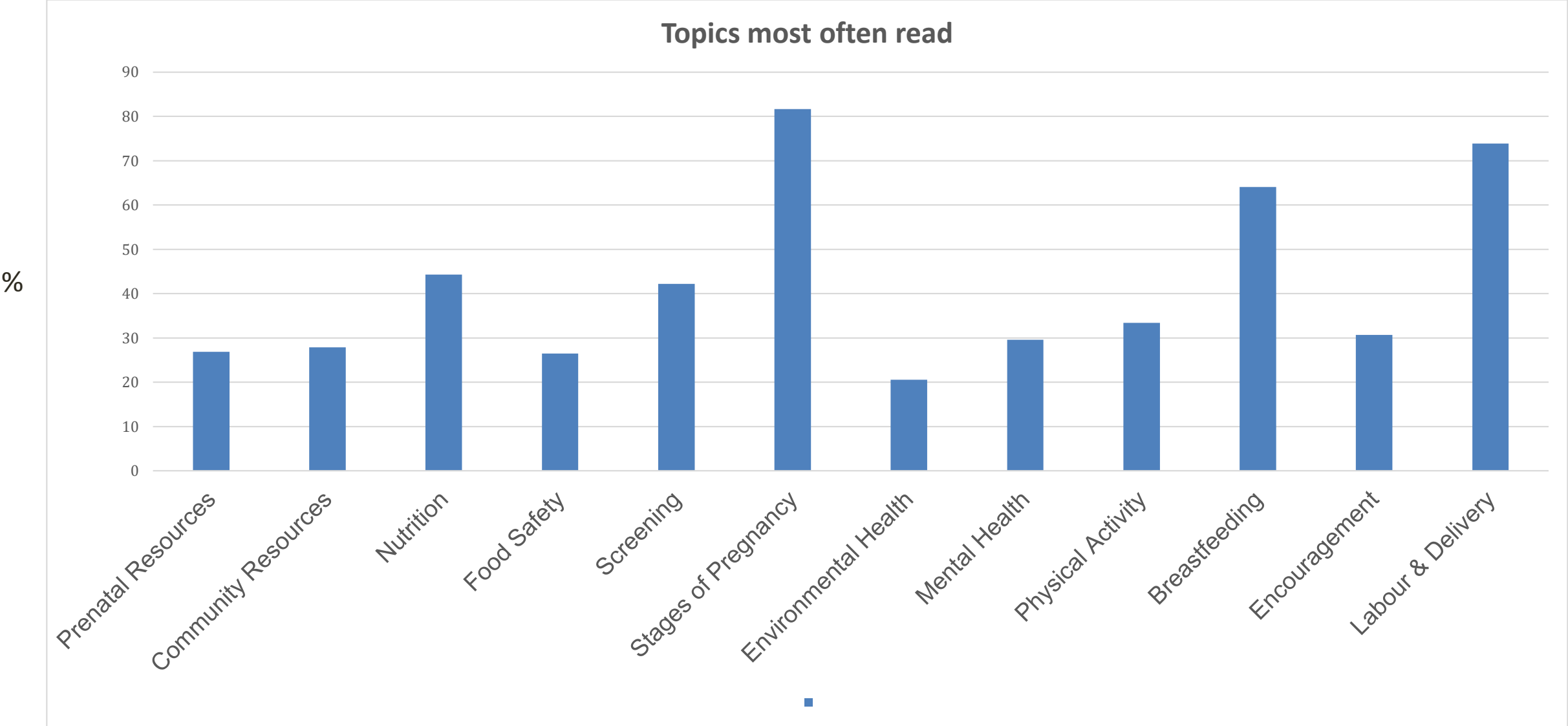
Messages Read (%)



% of Messages Containing New Information



SmartMom Evaluation



SmartMom Evaluation

	Enrollment	Completion	P-value
	mean (sd)	mean (sd)	mean (sd)
Knowledge test (10 items)	7.6 (1.3)	8.4 (1.2)	<.001
Fear of Childbirth (12 items – score 0-60)	29.4 (7.4)	27.6 (7.7)	<.001
EPDS (depression) (10 items- score 0-30)	6.8 (4.5)	5.8 (4.5)	<.001

Paired t-tests, n= 700

OUTCOMES PILOT

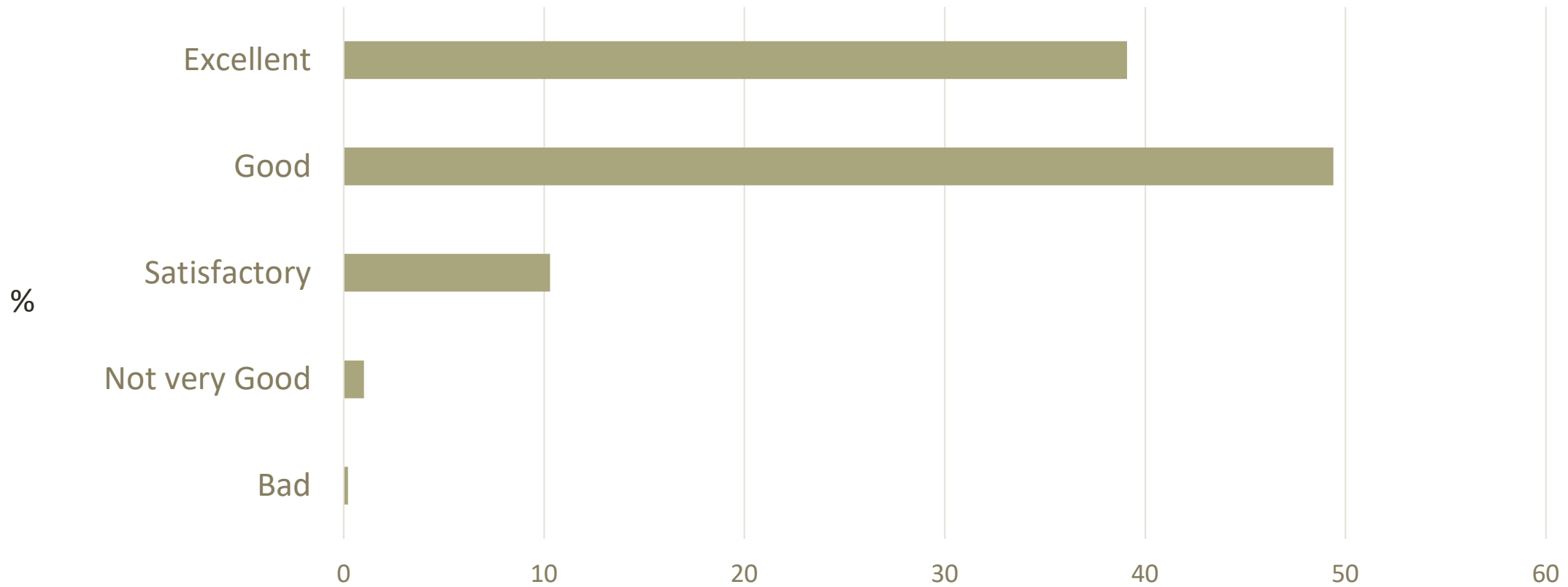
	SmartMom Enrollees n= 137	Non-enrollees n= 200
Less than 6 prenatal visits	8.9%	13.8%
Wt gain > 16 kg	35.1%	57.2%
Intrauterine Growth Restriction	2.9%	4.0%
Gestational Diabetes – non-insulin dependent	12.4%	18.0%
Gest Diabetes – Insulin dependent	8.0%	13.5%
Cigarette smoking	1.5%	2.5%
Apgar <7 @1 minute	9.8%	11.3%

OUTCOMES PILOT

Among 104 users of Cannabis, 13, (12.5%) indicated that they modified their use because of SmartMom messages.

Among 107 respondents, 43 (40.1%) indicated that they changed their exercise regime in response to SmartMom messages.

HOW WOULD YOU RATE THE QUALITY OF MESSAGES?



SmartMom Evaluation

Source of Info in Pregnancy	Enrollment	End of Pregnancy
SmartMom		55.1
Class	49.5	30.7
Books	57.6	21.8
TV	12.1	0.8
Family	60.5	16.4
Friends	59.6	15.0
Nurse	26.9	5.0
Midwife	30.5	26.8
Doctor	64.2	62.5
Baby's Best Chance	33.7	25.9
Healthy Families BC Website	44.6	9.8
Google	52.6	24.9
Other websites (MotherRisk, Kellymom)	2.5	3.3
Telephone Apps (Baby Centre, Baby Bump, What to Expect, Ovia, Pregnancy Plus)	18.7	12.5

SmartMom Evaluation

98.9% responded that messages were easy to read.

93.9% would recommend the program to a friend.

SO, WHY ARE WE DEVELOPING SMARTPARENT?

- The Canadian Maternity Experiences Survey reported that there are significant gaps in parent's access to health education and health care for their infants.
- Just under half (48.8%) saw a doctor for non-routine care. 13.1% of those parents indicated that they had difficulty accessing a health care provider.
- Parents are using too many online sources of information for infant care, but most have been developed for commercial interests or by consumers with potentially inaccurate information.

WHAT IS SMARTPARENT?

SmartParent is Canada's first parenting education program via text messaging that sends parents text messages to:

- Provide information
- Link to evidence-based sources of online information
- Suggest topics of conversation with providers
- Direct parents to local resources

Remember: Back to sleep!
Put your baby on their back
to sleep. Learn about this
and other sleeping safety
tips @ _____

Have you had the baby
blues for 2+ weeks?
Depressed mood is
common - consult a
healthcare provider and
learn more

@ _____

ENROLLMENT SURVEYS

- Demographic information
- Informational preferences
- Knowledge test
- Parenting confidence
- Parenting competence
- Infant health outcomes
- Health services outcomes

SmartParent

Babies should sleep on their backs.

True

False

It is okay to jog with 3-month-old baby in a stroller.

True

False

Parents should use a rear-facing car seat for babies under 12 months.

True

False

Baby bath seats put babies at risk of drowning.

True

False

The SmartMom Team

Development Partners



Prenatal Health Experts



Patient Advocate

Technology Partners



Swift Aggregation Services



Funded by:



The Alva Foundation



SmartMom

ADVISORY COMMITTEE

- Health Authorities in BC
- First Nations Health Authorities
- BC Women's Hospital
- Child Health BC
- Perinatal Services BC
- FASD Canada
- BC Association of Outreach Pregnancy Programs

CONTACT INFORMATION

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