

Summer 2017

# CHILD Manitoba



Summer is well on its way and we are planning a lot of great things for the CHILD study's future. We have nearly completed ALL of the 5 year visits! This is incredibly exciting for us because with such a large amount of completed data, researchers can start presenting more and more cool findings!! Read further to see what new articles have come out recently and to discover some other ways you can take part in research!

As always, if you have any questions or concerns, feel free to send us an email, give us a call or connect with us on social media. And for those of you who have completed the 5 year visit, you are welcome to contact us anytime and let us know what's happening in your lives. We love keeping in contact and we will continue to reach out to you through social media and our quarterly newsletters.

**If you still need to do the 5 year visit, we want to see you!**  
**Call or email Ingrid at: 204-789-3475 or [iloewen@chrim.ca](mailto:iloewen@chrim.ca)**



Clockwise from bottom left: Connor, Connal, Isabella, Liam, Sophia, Talia, Huxley

Have you shared a photo of your CHILD yet?  
Feel free to mail or email us one !

## Inside this issue

Puppies and the Microbiome	2
CHILD in the Economist	2
Breastfeeding and Wheezing	3
Malcolm Sears	3
CHILD Focus Groups	4
Join a Parent Advisory Group	4

## Important Numbers

**1000** One Year Visits have been completed!

**962** Three Year Visits have been completed!

**855** Five Year Visits have been completed to date!

# Puppies and the Microbiome

Using data from 746 infants from the CHILD study, researchers have looked at the impact of exposure to pets in the womb and after birth on babies' gut bacteria.



exposure increased the amount of certain species of bacteria (*Oscillospira* and/or *Ruminococcus*) no matter what the mode of delivery was. The presence of these bacteria has been shown to relate to less

bacteria of infants. Although the research is still new, changes like these may have all sorts of effects on health outcomes of children, including a possible decrease in allergies and obesity.

*Nature Outlook*, which outlines the research, states that "it's premature, however, for

CHILD mothers reported on their household pet ownership during pregnancy and when their baby was 3 months old. The infants' gut bacteria were measured at 3 months old.

Over half of the infants were exposed to at least one furry pet either during pregnancy or after being born. 8% were exposed in pregnancy alone and 46.8% were exposed during both time periods.

Pre- and postnatal pet

## "Exposure to pets during and after pregnancy can alter the gut bacteria of infants"

childhood atopy (allergic disease) and obesity.

The relationships between pet exposure and gut bacteria were not impacted by whether the mother had asthma or allergies, whether the child had siblings or whether the child was breastfed.

This study shows that exposure to pets during and after pregnancy can alter the gut

doctors to start writing prescriptions for pooches." That being said, the goal of CHILD is to find out how to help families improve the health of their children and this may be one possibility.

The *Nature Outlook* article can be found here: [http://www.nature.com/nature/journal/v543/n7647\\_suppl/full/543S48a.html](http://www.nature.com/nature/journal/v543/n7647_suppl/full/543S48a.html)

## CHILD in The Economist

The CHILD Study was featured in a February 2017 issue of *The Economist*. The article explores the impact of cleanliness on risk of chronic diseases, such as asthma and allergies. Using CHILD samples, researchers have been able to start studying gut bacteria (a measure of cleanliness and environmental interaction) throughout early life development and relating this to outcomes such as wheezing and positive allergy tests. There is still much work to be done, but, so far, this type of research has pointed to interesting information including the fact that children were 20 times more likely to show wheezing and positive allergy tests if they were missing 4 types of bacteria (*Faecalibacterium*, *Lachnospira*, *Rothia* and *Veillonella*) compared to those who had these gut bacteria. To read the article follow this link: <http://www.economist.com/news/science-and-technology/21717349-four-good-bugs-certain-bacteria-protect-against-disease-growing-threat>

Have you had a change of address or phone number recently?

Update your information with Ingrid at 204-789-3475 and [iloewen@chrom.ca](mailto:iloewen@chrom.ca)

# Breast feeding and Wheezing

CHILD researcher Meghan Azad has published a new article looking at the relationship between breastfeeding and wheezing in the first year of life.

Meghan found that breastfeeding may provide protection against wheezing for babies born to mothers with asthma.

In this article, data from 2773 infants from CHILD were studied. Caregivers reported on infant feeding and wheezing



mented with food (rather than formula). These relationships were not seen in situations where mothers did not have asthma.

The article can be found at : <http://erj.ersjournals.com/content/49/5/1602019>

Beyond the issue of asthma in children, data from CHILD may be helpful in the prevention of other chronic diseases, such as COPD, a disease of lung deterioration, in the adult population. A recently published editorial in the *European Respiratory Journal* discussed the idea that abnormal lung growth patterns start early in life. This article outlines various research, including CHILD research, that has shown the impact of genetic and early environmental elements and their interactions on abnormal lung growth and faster lung decline.

Check out the article here: <http://erj.ersjournals.com/umclidm.oclc.org/content/49/5/1700105>

## **“Breastfeeding may provide protection against wheezing for babies born to mothers with asthma”**

episodes at 3, 6 and 12 months as well as whether breastfeeding was exclusive (no food or formula), partial (breast milk with formula or foods) or not done. Of this group, 21% of mothers had asthma, 46% breastfed for at least 12 months and 21% of infants experienced wheezing.

Among mothers with asthma, longer breastfeeding was

related to less infant wheezing. The mothers' education and whether or not she smoked did not influence this relationship.

At 6 months, wheezing was reduced by 62% with exclusive breastfeeding and by 37% with partial breastfeeding compared with no breastfeeding. However, partial breastfeeding was only protective when the breastmilk was supple-

## Malcolm Sears: CHR Researcher of the Month

CHILD Study Principle Investigator and Director, Dr. Malcolm Sears, was deemed “Researcher of the Month” by Canadians for Health Research (CHR) this past February. Dr. Sears has won many impressive awards including the prestigious 2016 J. Allyn Taylor International Prize in Medicine and the Award for Leadership in Health Research by the Asthma Society of Canada in 2015. Congratulations Dr. Sears!



## Contact Us!

CHILD Study Manitoba  
John Buhler Research  
Centre  
505-715 McDermot  
Avenue  
Winnipeg, Manitoba  
R3E 3P4

CHILD Manitoba  
Research Coordinator:  
Rishma Chooniedass

Phone: 204-789-3978  
Fax: 204-789-3986  
E-mail:  
rchooniedass@chrom.ca



[www.canadianchildstudy.ca/](http://www.canadianchildstudy.ca/)

### Follow us on:

**Facebook:**



[www.facebook.com/  
child.studywinnipeg](http://www.facebook.com/child.studywinnipeg)

**Twitter:**



[www.twitter.com/  
CHILDStudyMB](http://www.twitter.com/CHILDStudyMB)

## CHILD Focus Groups: Your Participation is Appreciated!

Over the last few months, CHILD Manitoba has conducted a series of focus groups with participating parents. Each session consisted of approximately 10 parents discussing what they liked and did not like about the study, and if the CHILD study were to continue, what they would be interested in learning more about. We received a lot of very valuable insight into what our CHILD families go through with their selfless participation. Thank you to all of our CHILD study families for your dedication and thank you to those parents who were able to make it out to a focus group and share their experiences with us!

## Influence Healthcare: Join a Parent Advisory Group!

The Developmental Origins of Chronic Diseases in Children Network (DEVOTION) is a team of people who study health, work in government, or live with a health issue and are interested in improving the health of Manitoban mothers and children. The CHILD study is an important element in this goal. DEVOTION is creating a Parent Advisory Group and would like to invite any CHILD participants who may be interested. Your input will help to:

Share your voice with health researchers who value your input

Share your stories in a safe space

Connect with other families involved in a healthcare study

Learn more about the research that is happening around maternal and child health

Work side by side with researchers in a way that may guide future research

Research that reflects the experience of people affected by a health issue may help to better meet the needs of people using the healthcare system.

If you wish to be a part of the Parent Advisory Group, you can contact Leanne Dunne (Knowledge Exchange Coordinator with DEVOTION) at:

Email: [ldunne@hsc.mb.ca](mailto:ldunne@hsc.mb.ca)

Phone: (204) 789-3995

To learn more about DEVOTION click this link: [www.devotionnetwork.com](http://www.devotionnetwork.com)