

CAIRE and PIPER - Developing a research agenda

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I am involved in research grants and funding from industry	Pfizer, Merck, GSK, VBI Vaccines	No vaccine trade names
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The PIPER Group

- Progressing Immunization in Pregnancy Evaluation in Research



Evolution of PIPER

Planning Committee	Dr. Manish Sadarangani – University of BC Dr. Julie Bettinger – University of BC Dr. Eliana Castillo – University of Calgary Dr. Eve Dubé – Institut national de santé publique du Québec Dr. Natasha Crowcroft – University of Toronto Dr. Joanne Langley – Dalhousie University Dr. Scott Halperin – Dalhousie University Dr. Karina Top – Dalhousie University Gordean Bjornson – University of BC
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- Initial meeting December 2016 at CIC
- Workshop May 2017 (34 participants)
 - Evidence gaps identified at May 2017 workshop
 - Focus on pertussis → 39 evidence gaps
- Cross-sectional survey → 153 stakeholders
 - Jan 19 – Feb 21
 - Each evidence gap ranked for importance/feasibility of **new research**
 - **1 low** → **5 high** importance/feasibility
 - Asked to self-report area and level of expertise

Results of pertussis survey

	Total, N	Researcher, N	End User, N	Decision- maker, N	Funder*, N	Other/Unknown/ Missing, N
Survey Invites sent	153	93	37	10	10	3
Completed & partially completed surveys	71	44	13	6	5	3
Respondents level of expertise	20	10	5	1	2	2
Beginner/Novice Expertise	22	14	3	3	2	0
Intermediate	29	20	5	2	1	1
Proficient/Expert						

*including industry or grant funders

- 35 physicians
 - 16 peds ID, 13 public health, 3 obstetric, 3 other
- 20 scientists/researchers
 - 9 epidemiology, 5 immunology, 2 social science, 4 other
- 6 allied health care providers
- 6 program managers
- 4 other/unknown

Results of pertussis survey

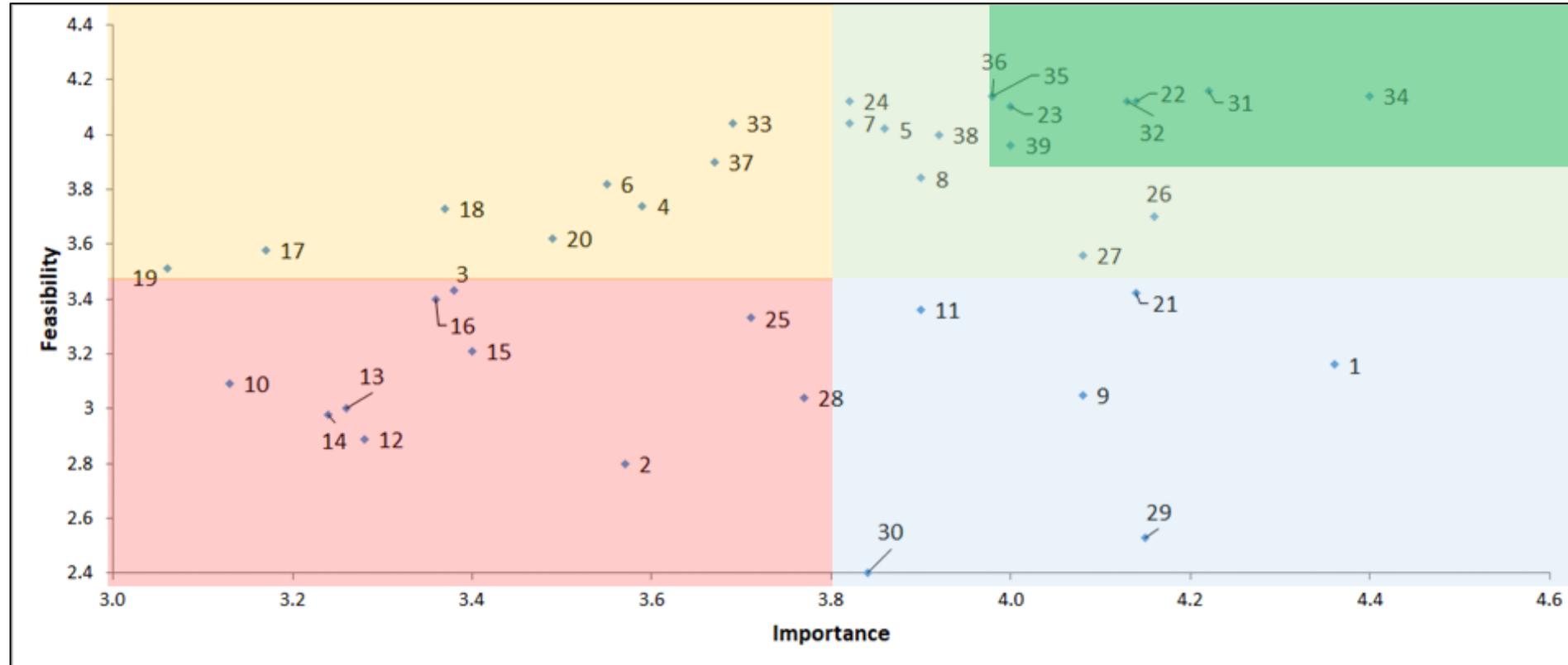
- Importance rankings

- Mean 3.1-4.4
- 12/39 (31%) mean ranking ≥ 4.0 (high/very high importance)

- Feasibility rankings

- Mean 2.4-4.2
- 12/39 (31%) mean ranking ≥ 4.0 (generally or very feasible)

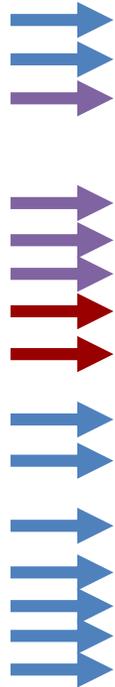
Results of pertussis survey



Results of pertussis survey

Question	Evidence Gap	All respondents (N=71)	Role in Immunization				Level of Expertise		
			Researchers (N=44)	End users (N=13)	Decision makers (N=6)	Funders (N=4)	Proficient/Expert (N=29)	Intermediate (N=22)	Beginner/Novice (N=20)
1	National safety surveillance in pregnancy								
5	Behaviour & intentions among pregnant women								
7	Opinion of pregnant women in optimizing Tdap acceptance								
8	Cost effectiveness of pertussis immunization in pregnancy								
15	National safety surveillance for all women of childbearing age								
21	National safety surveillance in infants								
22	Incidence of laboratory confirmed pertussis in infants								
23	Healthcare utilization data in infants								
24	Short term outcomes in infants								
26	Impact of mat Abs on infant vaccine responses vs pertussis								
27	Impact of mat Abs on other vaccine responses								
28	Role of breast milk								
31	Behaviour & intentions of maternity care providers								
32	Opinion of mat care providers in optimizing Tdap acceptance								
33	How to better support maternity care providers								
34	Opinion of mat care providers on integrating immunization								
35	Behaviour & intentions of frontline imm providers on recommendations								
36	Behaviour & intentions of frontline imm providers on delivery								
38	Opinion of frontline imm providers in optimizing Tdap acceptance								
39	Opinion of front line imm providers on integrating immunization								

Legend	
■	Highest ranked priorities for both importance and feasibility
■	High ranked priorities for both importance and feasibility
■	Priorities ranked lower for importance but with high feasibility
■	Priorities ranked high for importance but low for feasibility
■	Lowest ranked priorities for both importance and feasibility



- **Social science**
 - Frontline imm. providers
 - Maternity care providers
 - Pregnant women

- **Epidemiology/Programmatic**
 - Incidence, outcomes, healthcare utilization, cost effectiveness

- **Immunology**
 - Impact of mat. Ab

Results of pertussis survey

- Of 15 highest ranked overall
 - 9 social science
 - 7 research of healthcare providers
 - Epidemiology
 - Immunology
 - Cost effectiveness
- Higher expertise
 - Higher importance & feasibility: Role of breast milk
 - Higher feasibility: National safety surveillance
 - Lower importance: opinions of pregnant women, cost effectiveness, supporting maternity care providers

Next steps

- Manuscript with detailed results
- Detailed face-to-face discussion to focus on these gaps
- Identification of priorities beyond pertussis
- Bridging feasibility gaps



Progressing Immunization in Pregnancy Evaluation and Research (PIPER) Group Meeting
Tuesday-Wednesday, 4-5 December, 2018; 5.30-7.00pm
Shaw Centre, Room 205

Agenda

Meeting Objectives:

- Continue developing collaborations between individuals with expertise and/or interest in immunization in pregnancy across Canada, and determine the best mechanisms for ongoing collaboration.
- Understand how best to advance the pertussis research priorities identified from the previous workshop
- Finalize the next vaccine(s)/topic(s) to be focused on as priorities in Canada

Pre-Meeting Work

1. Consider different models for how PIPER is structured, including defining a 'PIPER Project'
2. Pertussis immunization in pregnancy – identify ongoing and funded projects
3. Determine priorities beyond pertussis, including developing specific project ideas

Meeting	Dr. Manish Sadarangani, Vaccine Evaluation Center, BC Children's Hospital & University of British Columbia
Co-Chairs	Dr. Eliana Castillo – Cumming School of Medicine, University of Calgary



Acknowledgements

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- Eliana Castillo
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- Michelle Mozel
- Suzanne Liu
- Canadian Association for Immunization Research, Evaluation & Education (CAIRE)





**5th International Neonatal & Maternal Immunization
Symposium (INMIS 2019)
September 15-17, 2019 in Vancouver, Canada
www.inmis.org**

Hear up-to-date information in maternal and neonatal immunization from vaccinology research laboratory science and clinical trials through to implementation and social science of immunization programs.



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Connecting Canadian Vaccinologists

The CAIRE membership represents over 140 researchers and stakeholders from more than 30 institutions across Canada that are involved in vaccine and program development, evaluation and training.



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Thank you



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