



Feedback from ~ a thousand BC physicians about immunizations

Dr. Meena Dawar
Dr. Paul Hasselback
Ms. Tamsin Morgana

8 December 2011



Presentation overview

- Context
- Research questions
- Methods
- Results, phase 2-3
- Discussion



Research investigator team

- C Badenhorst
- J Buxton
- A Derban
- S Dobson
- P Hasselback
- J Kaczorowski
- M Lem
- M Linekin
- S Machin
- J McCrea
- T Morgana
- B O'Briain
- D Scheifele



Research implementation team

- G Bjornson
- J Catterson
- S Fan
- E Grove
- C Jankowski
- C Lajeunesse
- K Lajeunesse
- J Li
- K Marty
- C Melenberg
- W Zhang



Project funded by

- Michael Smith Foundation for Health Research
- BC Immunization Committee
- Public Health Agency of Canada



Immunization schedule 2000

Age	Vaccines
2 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib
4 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib
6 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib
On or after 1st birthday	MMR
18 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib MMR



Immunization schedule 2001

Age	Vaccines
2 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib Hepatitis B
4 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib Hepatitis B
6 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib Hepatitis B
On or after 1st birthday	MMR
18 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib MMR



Immunization schedule 2003-04

Age	Vaccines
2 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib Hepatitis B Pneumococcal conjugate Meningococcal C conjugate
4 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib Hepatitis B Pneumococcal conjugate Meningococcal C conjugate (<i>at-risk infants only</i>)
6 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib Pneumococcal conjugate (<i>at-risk infants only</i>) Influenza (during the influenza season)
On or after 1 st birthday	MMR Meningococcal C conjugate Varicella Pneumococcal conjugate Influenza (during the influenza season)
18 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib MMR Influenza (during the influenza season)



Background

- Increasing complexity of schedule
- Several changes to schedule
- New MSP billing codes
- New WorkSafeBC regulations requiring safety needles



Purpose

- To examine the experience of primary care physicians with immunization delivery in British Columbia:
 - In particular, why some physicians continue to vaccinate
 - Identify factors that would encourage non-immunizers to start vaccinating
 - Identify supports for immunizing physicians



Primary objective

- To explore challenges faced by primary care physicians in providing a quality immunization program to children and adults.



Secondary objectives

1. Attitudes towards immunization
2. Knowledge and system needs in providing immunizations
3. Describe factors that impact decision to provide vaccines
4. Describe relationship with public health
5. Explore use of evidence-based practice strategies
6. Explore the acceptance and employment of MSP billing codes



Methods

- Qualitative: Exploration of themes using open ended questions
 1. Stakeholder interviews: 8 physicians
 2. Focus groups: 58 physicians in 10 groups

- Quantitative and Qualitative: Development / administration of a survey questionnaire to explore representativeness of findings
 3. Survey administered to all eligible BC docs



Timelines

- **Stakeholder interviews:** March-April 2009
- **Focus groups:** July-September 2009
- **Survey:** September-October 2010
 - Closed Dec 2010



Results: Phase 2 & 3

- Physicians overwhelmingly support immunizations
 - *You know, I look at vaccinations as being a part of your overall standard of care. ...we should be recommending and giving them as part of good, all 'round full service care.*
 - 1135/4552 physicians responded
 - Of respondents, 946 were eligible
 - People wrote all over survey forms
 - 0/167 non vaccinators indicated “immunizations are not an effective medical intervention”



Section 1: Demographics



Survey respondents (946 eligible)

- Response rate similar by Health Authority (HA)
- Median age 52 years (29-84 years)
- 53.6% male, median 22 years in practice
- Type of practice:
 - 24% solo, 66% group, 8% interprofessional
- 7.6% (72) pediatricians, 89.6% family docs (17% focused practice)
- 82% immunizers with median 20 yrs immunization delivery
- 4 children and 6 adults immunized per month



Section 2: Immunization delivery



Immunization profile by HA

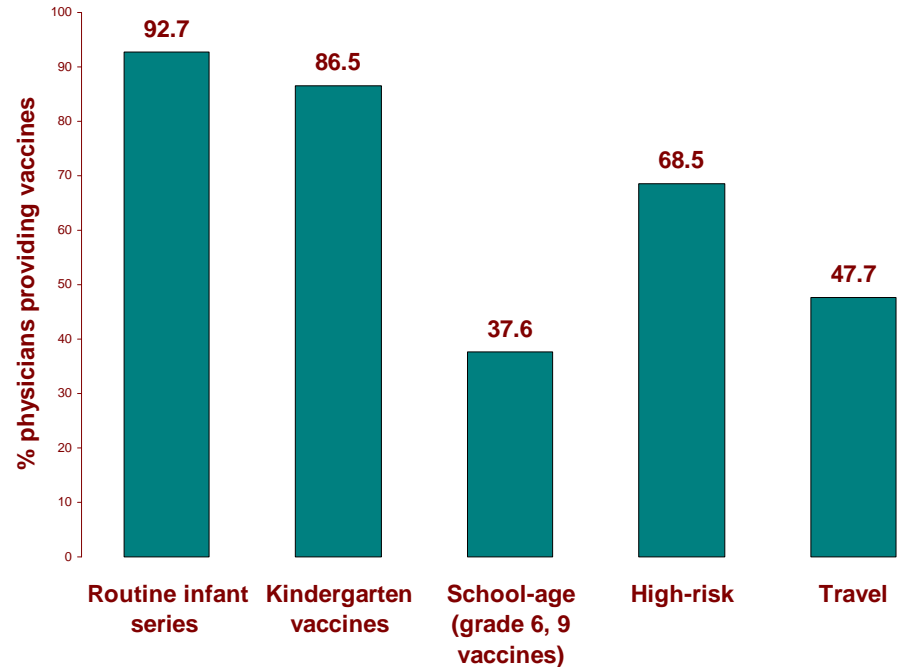
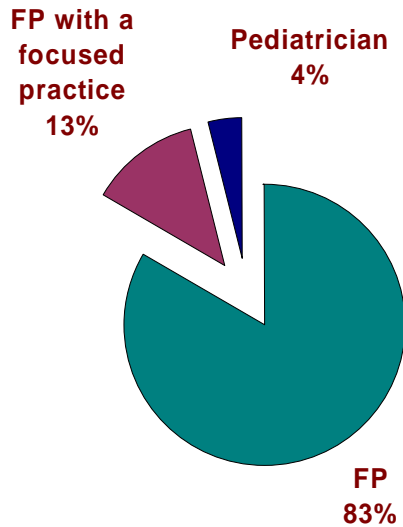
	Total	HA1	HA2	HA3	HA4	HA5
Eligible respondents	946	166	200	271	163	46
	%	%	%	%	%	%
Non immunizer	17.7	16.9	12.0	15.1	19.0	30.4
Immunizing physicians:	82.0	83.1	87.5	84.9	80.4	69.5
• Full scope immunizer	34.6	3.1	51.5	65.3	9.2	4.3
• 1° Adult immunizer	47.5	80.1	36.0	19.6	71.2	65.2



Immunization profile by HA

	Total	HA1	HA2	HA3	HA4	HA5
Eligible respondents	946	166	200	271	163	46
	%	%	%	%	%	%
Non immunizer	17.7	16.9	12.0	15.1	19.0	30.4
Immunizing physicians:	82.0	83.1	87.5	84.9	80.4	69.5
• Full scope immunizer	34.6	3.1	51.5	65.3	9.2	4.3
• 1° Adult immunizer	47.5	80.1	36.0	19.6	71.2	65.2
• Adult immunizers (%)	80.9	83.1	86.0	82.3	80.4	69.6

Physicians who provide routine immunizations to children* (n = 327)



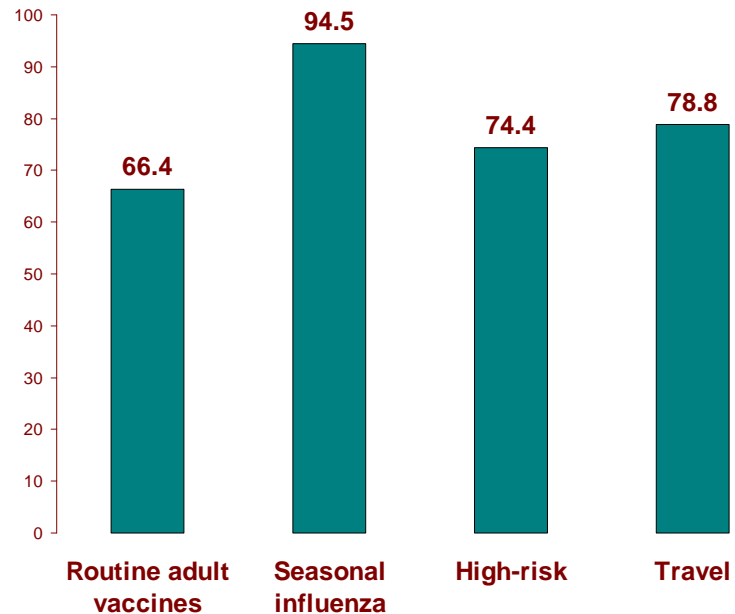
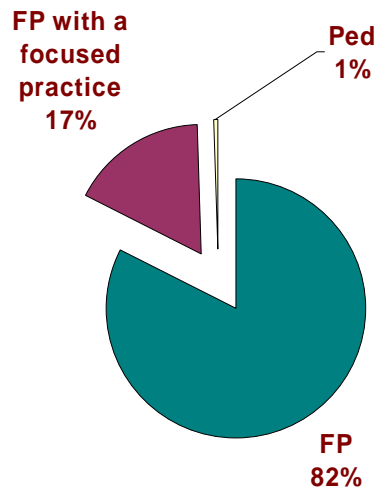
*86% (280) operate in HA 2 & 3



Opinions about the adult program

- *I think the adult immunization program is **extremely fragmented**. They're pretty much exclusively **relying on patients to present themselves** and keep track of their own stuff as opposed to there being anything more structured.*
- *And there probably should be **more public information campaigns directed at adults**, informing them about things like having their tetanus boosted every ten year....*
- ***Nobody ever has a record of their vaccinations** when they're an adult. Nobody ever seems to know what they need or don't need. There's just a vacuum there.*

Physicians who immunize adults (n = 771)



What program? I mean, there is one?... I'm not aware of a program.



Section 3: Attitude



Why do physicians vaccinate?

I think the reason we like to... do immunizations is because it tends to keep a bond between the family doctor and the family and the kids.



Why do physicians vaccinate?

- Full-scope immunizers
 - 'immunization delivery builds relationship with families' (n=84.7%)
 - 'easier for parents to have their child immunized in a physician's office' (n=86.2%)
- Primarily adult immunizers
 - 'easier for adults to get vaccinated in a physician's office' (n=83.1%)
 - 'Integral part of care' (n=90.6%)



In-office support for immunizing docs

	Total
# responding physicians	781
Any support to vaccinate or manage vaccines (%)	66.5
Types of support:	
Manage vaccine inventory (%)	62.6
Pick up vaccines (%)	62.0
Monitor cold chain (%)	60.8
Deliver shots (%)	2.4



What challenges do physicians face?

- *... when they come with the immunization it's-- bit of a **chaos** or **time consuming process** because not only do you have to do all the immunization preparation, you have to give the shot, you have to check the kid, you have to answer all the parents' questions about the child because, you know, the parents made a special visit and their other kids are there.*

So it's a very sort of a time consuming -- process to go through.



Challenges

- *I spend much more time filling out the bloody form, listing the patient and where I gave the shot and the lot number and all of that sort of stuff, which is important. I'm not knocking that. But it is **time consuming**.*

You spend more time doing that than actually giving the shot to the patient.



Challenges

Immunizer profile	Full-scope	1° adult
	%	%
Difficult to keep up with schedule	41	40
Takes too much time	48	25
Adequate payment	55	33
Proposed payment per shot	10	



Section 4: Immunization practices



Reported immunization practices

Immunizer profile	Full-scope	1° adult
# responding physicians	327	449
	%	%
Use every encounter to offer necessary vaccines	52	27
Provide benefit-risk info before giving shots	62	71
Give routine shots in the presence of minor illness	63	41
Discuss non-publicly funded vaccines	47	47
Give all recommended imms at a clinic visit	88	
Practice bills MSP for immunization delivery	90	59



Vaccine recommendations

	Total
# respondents	898
	%
MMR*	94.4
Influenza	98.6
HPV	86.4
Rotavirus	32.6
Shingles**	58.7

* Full scope immunizer

** 1° adult immunizer



Vaccine recommendations

	HPV	Rotavirus	Shingles
	%	%	%
Unimportant disease	4.9	11.4	6.2
Cost	45.9	27.3	42.3
Vaccine safety	12.3	7.1	3.0
Vaccine efficacy	14.8	7.1	19.9
Patient resistance	18.9	7.8	7.3
Inadequate information	15.6	53.4	38.8
Total	122	605	371



HPV vaccine

- *What frustrates me, however, is the fact that there are many young women that should get it but, ..., that providing it for now 12 years old that's free of charge and there's a lot of women in between 12 and, say, 26 that can't afford the \$400.*

It's pretty pricey and that's my biggest problem with Gardasil.



MSP billing codes



Employment of MSP billing codes

- *I don't have a clue what it is. And I don't bother worrying about it.*
- *Well, in fact, the vaccination of children is well remunerated and it can be done in conjunction with a visit. ... For all other vaccinations there is no fee if you're seeing the patient on the same day.*



Employment of MSP billing codes

Immunizer profile	Full-scope	1° adult
# of respondents	327	449
	%	%
Practice 'occasionally' to 'never' bills MSP for immunization delivery	8	34
Billing type:		
• Visit fee	73	36
• Precise immunization code	69	14
• General immunization code	18	40
• Don't know	9	19



Organizational strategies



Use of organizational strategies to find eligible patients

- *Yeah, **I don't have a good system** so I have to rely on the patient... and I ask them, you know, when was the last time you had your pneumo vaccine. Did you get your flu shot this year? So if I don't remember to ask them **usually they forget.***



Use of organizational strategies to find eligible patients

	All docs	Non immunizer	1° adult	Full scope
# respondents	891	147	425	319
	%	%	%	%
Actively identify patients who need immunizations	52.7	61.2	51.8	50.2
Contact due patients to come in for immunizations	22.9	16.6	23.6	24.8
Contact overdue patients to come in for immunizations	17.2	11.9	15.2	22.2



Keeping up to date



Primary sources of immunization information

- *Again, **commercial industry sources** comes to my office regularly, in fact, I had someone in today who was updating me on the shingles vaccine and the Gardasil vaccine.*
- *I have to admit **I use the pharmaceutical--** they have great handouts. We usually confirm it with our sites first but we do use those a lot because they're very splashy. They're easy to give out. No one else gives this information to provide patients. So I think that's even more important.*



Primary sources of immunization information

	Total	FP	FP with focus	Pediatrician
# of respondents	862	629	147	67
Pharmaceutical company (%)	31	32	30	27
CME sessions (%)	64	64	60	64
Peer reviewed journals (%)	32	28	35	55
Colleagues (%)	33	32	37	33
Local public health resources (%)	67	70	62	49
Medical organization resources (BCMA, CPS, etc) (%)	42	39	38	73
Canadian Immunization Guide (%)	58	59	56	54
BC CDC Immunization Manual (%)	30	30	33	19



Preferred mode of receiving information

- Paper 50%
- Electronic 40%
- In person 3.5%
- Paper and electronic 2.7%



Supports requested



Immunization supports requested

- *One is **electronic recordkeeping** so it can be easily searchable and it would be available to other providers to know that certain immunizations have been covered.*
- *Yeah, **updated information**. Things that are **concise** and you have maybe **one sheet** that gives you an update on all the things, so if you looked at it you're pretty much up to date.*



Immunization supports requested

*I think one of the things that's missing ...is **educating of the public by the public health system**. And that they don't provide enough information via communication such as television ...*

And they should bring out the facts about, you know, the diseases that occurred back then and how much was occurring at that time, how much is occurring now, why was the cause of that...

*And I think that's one of the downfalls of the government is that they do not spend time talking about prevention enough and educating the general public. I don't know why. But **I think that has to be done as well...** You can have programs that-- for the general public because we all look at-- a lot of people look at television.*

	Total	Non-immunizer	Primarily Adult	Full-scope immunizer
Increased \$ for childhood immunizations	60	35	48	84
Increased \$ for adult immunizations	66	28	63	84
Easier access to vaccines*	37	28	41	35
Subsidized injection supplies	55	32	53	66
New vaccine updates	74	62	72	81
Updates about changes to provincial program	70	57	69	78
Information on cold chain management	21	18	23	20
Information on adverse event reporting	29	28	30	28
Immunization tools for record keeping	39	28	37	46
Patient handouts	60	48	61	63
New vaccine posters	35	23	35	39
CME sessions on vaccines	64	53	65	68
Easier access to imms records for clients	73	64	74	74
Consultation with public health re imms	36	25	38	37
Fewer vaccines per visit	22	17	18	31



Immunization supports requested

	Total	Non-immunizer	Primarily Adult	Full-scope immunizer
	%	%	%	%
Increased \$ for childhood immunizations	60	35	48	84
Increased \$ for adult immunizations	66	28	63	84
Easier access to vaccines	37	28	41	35
Subsidized injection supplies	55	32	53	66
New vaccine updates	74	62	72	81
Updates about changes to provincial program	70	57	69	78



Immunization supports requested

	Total	Non-immunizer	Primarily Adult	Full-scope immunizer
	%	%	%	%
Immunization tools for record keeping	39	28	37	46
Patient handouts	60	48	61	<u>63</u>
New vaccine posters	35	23	35	39
CME sessions on vaccines	64	53	65	<u>68</u>
Easier access to imms records for clients	73	64	74	74
Consultation with public health re imms	36	25	38	37



Other supports requested

- Info on adverse event reporting 29%
- Fewer vaccines per visit 22%
- Information on cold chain management 20%



Doctors and Public Health



View of public health

- ***The public health community health units are very good. When we call them up, say we need to get the shots, they get them ready right away so we can send somebody to pick them up. So I think in that sense, they're partnering with us. If we have questions about how to catch up with somebody,... we can call the community health and they help us ...figure out the schedule. So I think we work well with them.***
- ***I think as assisters of delivering of flu vaccine... that's a huge role that we help public health with 'cause there's just not the manpower for them to do that, you know, all those people in that very short amount of time. So I think they look for our assistance with that and I don't know what else they expect of us.***



View of public health

# respondents	946
	%
PH provides a quality immunization program for children	90.2
PH communicates changes to the immunization program	75.9
PH is available for immunization consult	78.2
Time required to pick up vaccines is reasonable	68.2
I am supportive of reporting immunizations delivered by me to PH	73.0
PH provides me with enough vaccines for children	52.5
PH provides me with enough vaccines for adults	67.9



Hard to get publicly funded vaccines

# of respondents	946
	%
Routine infant series	3.7
Influenza	15.0
Pneumococcal	11.1
Hepatitis A	15.8
Hepatitis B	7.1
Td	8.5
TdaP	7.5
Any vaccine	34.0



Limitations

- Broad overview, depth limited
- Data in white space
- A few questions lacked clarity
- Docs didn't follow directions
- Limited generalization to the wider BC physician community



On the upside

- Excellent overview of physicians' experience
- Results provide strategic priorities for public health and Ministry's attention
- Highlight areas that can benefit from further consultation



Thank you



Extra slides

Immunization delivery by physicians (943)

	N	Immunizer profile for analysis of attitude & practice
Any vaccinations to ADULTS only	170	Primarily Adult immunizer 449
Any vaccinations to ADULTS + non-routine vaccines to children	279	
Both (routine vaccines to) CHILDREN + (any vaccines to) ADULTS	322	Full Scope Immunizer 327
Routine vaccinations to CHILDREN (0-18yrs) only:	5	
Non-routine vaccines to children Only	8	Non Immunizer 167
None of the above	159	

Immunization delivery by physicians (943)

	N	Immunizer profile for analysis of vaccinations given
Any vaccinations to ADULTS only	170	<div style="border: 1px solid yellow; padding: 5px;"> All physicians who immunize adults = 771 (82%) </div>
Any vaccinations to ADULTS + non-routine vaccines to children	279	
Both (routine vaccines to) CHILDREN + (any vaccines to) ADULTS	322	
Routine vaccinations to CHILDREN (0-18yrs) only	5	
Non-routine vaccines to children Only		Non Immunizer 167
None of the above		

All physicians who provide routine shots to children = 327 (35%)



Previous immunizers (44/167)

- Median 8 years since stopped vaccinating
- Top reasons:
 - PH prefers/does a better job
 - Current practice/ don't want patients to associate MD with shots
 - Takes too much time to discuss/give shots
- Fee level at which they will restart vaccinations (n=3)



Previous immunizers

It does not cover the actual costs of what we're doing. So as usual, the family doc is screwed.

	Total	Non-immunizer	Primarily Adult	Full-scope immunizer
Increased \$ for childhood immunizations	60	35	48	84
Increased \$ for adult immunizations	66	28	63	84
Easier access to vaccines*	37	28	41	35
Subsidized injection supplies	55	32	53	66
New vaccine updates	74	62	72	81
Updates about changes to provincial program	70	57	69	78
Information on cold chain management	21	18	23	20
Information on adverse event reporting	29	28	30	28
Immunization tools for record keeping	39	28	37	46
Patient handouts	60	48	61	63
New vaccine posters	35	23	35	39
CME sessions on vaccines	64	53	65	68
Easier access to imms records for clients	73	64	74	74
Consultation with public health re imms	36	25	38	37
Fewer vaccines per visit	22	17	18	31