

Supplementary Material

Mapping the delivery of interventions for vaccine-preventable infections in pregnancy in Victoria, Australia

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Appendices

Attachment A

Birthing Hospitals Survey

Mapping the delivery of interventions for vaccine preventable infections in pregnancy

ABOUT THE PROJECT

This evaluation project aims to understand how perinatal services relating to vaccine preventable diseases (influenza, pertussis and hepatitis B) are delivered to Victorian women and their infants. Understanding health care providers' perspectives is essential for mapping current service provision, and to identify areas of potential improvement including better coordination between primary and tertiary care.

Vaccination against influenza, pertussis and hepatitis B during pregnancy and subsequent care for women with hepatitis B and their infants prevents poor outcomes for mothers and babies.

ABOUT THE SURVEY

You are invited to take part in this survey because you manage a service providing care to pregnant women in Victoria before, during or after pregnancy. This survey will take approximately 10-15 minutes to complete.

The first part of the survey is dedicated to influenza, pertussis and hepatitis B service delivery and the second part is dedicated to barriers and improvements.

You can download a summary of your responses at the end of the survey.

Your participation in this survey is voluntary. You can exit the survey at any time.

For more information on influenza, pertussis and hepatitis B, please visit:

- Australian Immunisation Handbook (Hepatitis B)
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/hepatitis-b>
- Australian Immunisation Handbook (Influenza)
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/influenza-flu>
- Australian Immunisation Handbook (Pertussis)
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/pertussis-whooping-cough>

CONFIDENTIALITY

Your survey answers will be submitted to a survey analytics service, Qualtrics.com where this data will be stored in a password protected electronic format. Qualtrics will not collect personal information such as your name, email address, or give your computer's IP address to researchers, and your survey responses will remain confidential and anonymous.

You can access the Qualtrics privacy statement here ([linked](#)). No individual names will be collected. No identifying service information will be included in any public reporting, publications or/and presentations and your individual responses to this survey will remain confidential. However, service information (including name of hospital) will be included in an internal report to the Victorian Department of Health and Human Services to improve services delivered to pregnant women in Victoria.

CONTACT

If you have any questions about this evaluation or survey, please contact Nafisa Yussf at nafisa.yussf@mh.org.au.

By beginning this survey, you indicate that:

- You have read and understood the above information and
- You voluntarily agree to participate and
- You are 18 years of age or older.

ELECTRONIC CONSENT: By clicking the 'I agree' button, you are consenting to participate in this survey.

I agree

I disagree

End of Block: Block 1

Start of Block: General

Page Break

**Please note some questions are combined for influenza and pertussis; and hepatitis B birth dose and HBIG administration for the purpose of this appendix. However, questions were asked separately in the survey*.*

General questions

1. What is the name of your main place of work? *(All questions asked in this survey will relate to your main workplace you identify in this question) (name drop down of all Victorian birthing hospitals)*
2. What is your current role at this service? (e.g., antenatal unit manager, postnatal unit manager etc.)
{Optional}

Service delivery: Influenza and pertussis

3. Does your hospital routinely provide **influenza/pertussis** vaccinations to pregnant women?
If no/don't know, skip to Q6)
4. Who administers **influenza/ pertussis** vaccines to pregnant women in your hospital? (Tick all that apply)
 - Midwife immuniser
 - Nurse immuniser (non-midwife)
 - Doctor
 - Hospital pharmacist
 - Other (please specify)
 - Don't know
5. Where and when are **influenza/ pertussis** vaccinations delivered to pregnant women within your hospital? (Tick all that apply)
 - Antenatal clinic (on the same day as clinic visit)
 - Dedicated immunisation clinic, same day as clinic visit (walk in service)
 - Dedicated immunisation clinic, separate visit/service appointment required
 - Hospital pharmacy, walk in service
 - Other (please specify)
 - Don't know
6. Where does your hospital refer pregnant women for their **influenza/ pertussis** vaccinations (if at all)? (Tick all that apply)
 - General practice
 - Community-based health centre
 - Aboriginal controlled health organisations
 - Local government immunisation service
 - Pharmacy (influenza only)
 - Other (please specify)

- Don't know
- We do not refer pregnant women for influenza vaccination

If no/don't know to Q3 – skip to Q11 next.

7. In the 2019, did your hospital have any **influenza/pertussis** vaccine stock outs (ran out of vaccine)? (for influenza during flu season – April to October).
- Yes/No/Don't know

If hospital routinely provides influenza/pertussis vaccination to pregnant women AND

In 2019, had any influenza/pertussis vaccine stock out:

8. Please quantify the longest period you were without **influenza** vaccine: (please select only one option)
- Hours (how many hours?)
 - Days (how many days?)
 - Weeks (how many weeks?)
 - Months (How many months?)
 - Don't know

If hospital routinely provides influenza/pertussis vaccination to pregnant women:

9. What procedures are used in your hospital to encourage maternal vaccination? (Tick all that apply)
- Checklists that prompt discussion of maternal vaccines with pregnant women
 - Provision of educational material about maternal vaccines to pregnant women
 - Other (please specify
 - None
 - Don't know

Communication between services: Influenza and pertussis

If hospital routinely provides influenza/pertussis vaccinations to pregnant women:

10. Is there a standard method for communicating with a woman's GP that an **influenza/pertussis** vaccination has been administered during pregnancy in your hospital? If so, what methods are used? (Tick all that apply)
- We rely on the woman to inform her GP practice
 - We note vaccine administration on the shared care record
 - We send information directly to the woman's nominated GP
 - We report all vaccinations to the Australian Immunisation Register (AIR)
 - Other (please specify)
 - We don't have a standard method for communicating with a woman's GP for the administration of influenza vaccination
 - Don't know

11. How does your hospital know if **influenza/pertussis** vaccinations have been administered to pregnant women in the community? (Tick all that apply)

- We rely on the woman to inform the hospital (verbal report)
- We rely on a letter from GP or community-based provider
- We routinely check the Australian Immunisation Register (AIR)
- We routinely contact the general practice
- We routinely contact the local government immunisation service
- We routinely check the antenatal record booklet (Victorian Maternity Record)
- Other (please specify)
- Don't know

If no/don't know to Q3, go to Q17 next

If hospital routinely provides influenza/pertussis vaccinations to pregnant women:

12. Where is maternal **influenza/pertussis** vaccination recorded in your hospital? (Tick all that apply)

- Birthing outcomes system (BOS)
- Other electronic health record
- Paper based record
- Other (please specify)
- Don't know
- We don't record maternal influenza vaccination in our hospital

13. Are maternal **influenza/pertussis** vaccinations that are administered in your hospital reported to AIR (Australian Immunisation Register)?

If no/don't know, skip to Q16.

14. How often are **influenza/pertussis** vaccinations data reported to AIR?

- Daily
- Weekly
- Monthly
- Greater than monthly
- Don't know

If hospital routinely provides influenza vaccination to pregnant women:

15. Who is responsible for reporting maternal **influenza/pertussis** vaccination data to AIR in your hospital? (Tick all that apply)

- Automatic electronic report to AIR
- Unit manager
- Health provider
- Hospital administrator
- Other (please specify)
- Don't know

Data recording and reporting: pertussis

If hospital routinely provides influenza/pertussis vaccinations to pregnant women:

16. Where are **refusal** of maternal vaccinations (influenza and pertussis) information recorded in your hospital? (Tick all that apply)

- Australian Immunisation Register (AIR)
- Birthing outcomes system (BOS)
- Other electronic health record
- Other (please specify)
- We do not record refusals
- Don't know

Hepatitis B service delivery: MOTHER

17. Is there an infectious diseases or gastroenterology/hepatology service in your hospital?

If no/don't know, skip to Q20.

18. What is the standard waiting time for general outpatient viral hepatitis review in your hospital?

- Less than 1 month
- 1 month
- 3 months
- 6 months
- 1 year
- More than 1 year
- Other (please specify)
- Don't know

19. Is there a system to ensure pregnant women with chronic hepatitis B are seen before 28 weeks in your hospital's specialised viral hepatitis service?

- Yes/No/Don't know

20. Where are pregnant women with hepatitis B referred to? (Tick all that apply)

- Internal referral to specialist in antenatal clinic
- Other medical specialist service within hospital (separate outpatient appointment)
- External public medical specialist service (e.g., at another hospital)
- External private medical specialist
- Other (please specify)
- No referral (women managed by midwives and obstetricians in antenatal clinic)
- Don't know

If no/don't to Q17, skip to Q22.

If there is an infectious diseases/gastroenterology/hepatology service in your hospital:

21. Who manages hepatitis B care for pregnant women in your hospital? (Tick all that apply)

- Midwife
- Obstetrician
- Infectious Diseases specialist

- Gastroenterologist
- Hepatologist
- Other medical specialist
- General Practitioner
- Other (please specify)
- Don't know

22. Is there a standard procedure to confirm a woman's hepatitis B status during admission for delivery at your hospital? If so, how does this occur? (Tick all that apply)

- Verbal report from the woman
- Paper record provided by the woman from community-based health service
- We contact the woman's community-based health service directly
- Check Birthing Outcome System (BOS)
- Check electronic medical record for laboratory results
- Other (please specify)
- No standard procedure to confirm a woman's hepatitis B status
- Don't know

Hepatitis B service delivery: CHILD

23. Does your hospital have a protocol for seeking consent from pregnant women during antenatal care for the administration of hepatitis B **birth dose** for their infant prior to presenting for delivery?

- Yes/No/Don't know

24. For pregnant women with hepatitis B, does your hospital have a protocol for seeking consent from women during antenatal care for the administration of hepatitis B **immunoglobulin (HBIG)** for their infant prior to presenting for delivery?

- Yes/No/Don't know

25. Where is hepatitis B **birth dose** vaccination and **immunoglobulin (HBIG)** administered in your hospital? (Tick all that apply)

- Delivery ward
- Neonatal care area
- Postnatal ward
- Other (please specify)

- Don't know

26. Who is responsible for ensuring timely hepatitis B **birth dose** vaccination (within 24 hours) and **immunoglobulin (HBIG)** are administered to infants born in your hospital? (Tick all that apply)

- Midwife
- Doctor on obstetric team
- Doctor on paediatric team
- Other (please specify)
- Don't know

27. In the last two years, did your hospital have any vaccine stock outs (ran out of vaccine) of hepatitis B **birth dose/ immunoglobulin (HBIG)**

If no/don't, skip to Q29.

28. If yes, please quantify the longest period you were without hepatitis B **birth dose/ immunoglobulin (HBIG)**:

- Hours (how many hours?)
- Days (how many days?)
- Weeks (how many weeks?)
- Months (how many months?)
- Other (please specify)
- Do not know

Hepatitis B data reporting and recording:

29. Where is hepatitis B **birth dose** vaccination / **immunoglobulin (HBIG)** recorded in your hospital?
(Tick all that apply)

- Birthing outcomes system (BOS)
- Other electronic health record
- Paper based record
- My Health, Learning & Development book (green baby book)
- Other (please specify)
- No standard procedure
- Don't know

30. In your hospital, is hepatitis B **birth dose** data reported to AIR (Australian Immunisation Register)?

If no/don't, skip to Q32.

31. If yes, how often is data reported to AIR?

- Daily

- Weekly
- Monthly
- Greater than monthly
- Don't know

32. Who is responsible for reporting hepatitis B **birth dose** vaccination data to AIR? (Tick all that apply)

- Automatic electronic report to AIR
- Unit Manager
- Health provider
- Hospital administrator
- Other (please specify)
- Don't know

33. Where are **refusal** of hepatitis B **birth dose** vaccination / **immunoglobulin (HBIG)** vaccination recorded in your hospital? (Tick all that apply)

- Birthing Outcomes System (BOS)
- Other electronic health record
- My Health, Learning & Development book (green baby book)
- Other (please specify)
- We don't record refusals
- Don't know

System gaps and improvements

If hospital routinely provides influenza/pertussis vaccinations to pregnant women:

34. What do you think are some of the barriers to the administration of **influenza/pertussis** vaccination to pregnant women in your hospital? (Tick all that apply)
- Lack of awareness for staff offering vaccination to pregnant women
 - Lack of adequately trained staff
 - No standardised procedures and/or policies
 - Women have to go to different internal service for vaccination
 - Women have to go to different external provider for vaccination
 - Pregnant women decline vaccination
 - No appropriate influenza/pertussis resources for pregnant women
 - Vaccine stock out
 - Inadequate access to vaccine storage facilities
 - Other (please specify)
 - All of the above
 - No barriers to the administration of influenza/pertussis vaccination for pregnant women in our hospital
 - Don't know
35. What do you think are some of the barriers for [guideline-based care](#) delivery for mothers with hepatitis B and their infants in your hospital? (Tick all that apply)
- No standardised procedures and/or policies for hepatitis B during pregnancy
 - Staff not adequately trained in hepatitis B care and delivery for pregnant women
 - No infectious diseases, gastroenterology or hepatology services available
 - Unclear recordings of woman's hepatitis B status in the health record
 - Lack of communication between services caring for pregnant women with hepatitis B
 - No appropriate resources for pregnant women with hepatitis B
 - Other (please specify)
 - All of the above
 - No barriers for guideline-based care delivery for mothers with hepatitis B and their infants in our service
 - Don't know

36. What do you think are the barriers for hepatitis B **birth dose/ immunoglobulin (HBIG) administration** in your hospital? (Tick all that apply)

- Lack of hepatitis B training for staff
- Lack of clarity on who is responsible for the administration of hepatitis B birth dose/HBIG
- No clear guidelines and/or procedures for hepatitis B birth dose
- Variation in individual staff attitudes to promoting hepatitis B birth dose vaccination /HBIG
- Perceived contraindication to administer hepatitis B birth dose/ HBIG (e.g., prematurity)
- Hepatitis B birth dose/HBIG vaccine stock out
- Women decline hepatitis B birth dose vaccination/ HBIG administration for their baby
- Inadequate access to vaccine storage facilities
- Short stay in hospital
- Transfer of baby from delivery suite to intensive care (NICU) and/or high dependency (HDU)
- Other (please specify)
- All of the above
- No barriers for hepatitis B birth dose delivery in our hospital
- Don't know

37. Has the Covid-19 pandemic had any impact on influenza, pertussis and/or hepatitis B service delivery for pregnant women and their infants at your service? (Free text) If no, skip to question 39.

- Yes/No

38. If yes, what was the impact? And what changes have been implemented to address these, if any? (Free text).

39. Has any non covid-19 related changes to influenza, pertussis and/or hepatitis B vaccination service delivery occurred in your hospital in the last few years? If so, what changes occurred and why? And what changes were implemented? (Free text).

40. Do you have other comments or recommendations on influenza, pertussis and/or hepatitis B care for pregnant women and their infants? If so, please comment below.

End of survey.

Thank you for your time completing this survey. For more information about influenza, pertussis and/or hepatitis B maternal vaccination, please visit:

- Hepatitis B pregnancy care guidelines: <https://www.health.gov.au/resources/pregnancy-care-guidelines/part-f-routine-maternal-health-tests/hepatitis-b#342-testing-for-hepatitis-b-infection-in-pregnancy>
- Australian Immunisation Handbook: <https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/hepatitis-b>
- Influenza – Australian Immunisation Handbook
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/influenza-flu>
- Pertussis – Australian Immunisation Handbook
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/pertussis-whooping-cough>

If you have any questions about the survey, please contact Nafisa Yussf at nafisa.yussf@mh.org.au.

Thank you!

Attachment B

Healthcare Providers Survey

Mapping the delivery of interventions for vaccine preventable infections in pregnancy

ABOUT THE PROJECT

This evaluation project aims to understand how perinatal services relating to vaccine preventable diseases (influenza, pertussis and hepatitis B) are delivered to Victorian women and their infants. Understanding health care providers' perspectives is essential for mapping current service provision, and to identify areas of potential improvement including better coordination between primary and tertiary care.

Vaccination against influenza, pertussis and hepatitis B during pregnancy and subsequent care for women with hepatitis B and their infants prevents poor outcomes for mothers and babies.

ABOUT THE SURVEY

You are invited to take part in this survey because you work within a service that provides care to pregnant women in Victoria before, during or after pregnancy. This survey will take approximately 10 minutes to complete. The first part of the survey is dedicated to influenza, pertussis and hepatitis B service delivery and the second part dedicated to barriers and improvements.

You can download a summary of your responses at the end of the survey.

Your participation in this survey is voluntary. You can exit the survey at any time.

For more information on influenza, pertussis and hepatitis B, please visit:

- Australian Immunisation Handbook (Hepatitis B)
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/hepatitis-b>
- Australian Immunisation Handbook (Influenza)
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/influenza-flu>

- Australian Immunisation Handbook (Pertussis)
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/pertussis-whooping-cough>

CONFIDENTIALITY

Your survey answers will be submitted to a survey analytics service, Qualtrics.com where this data will be stored in a password protected electronic format. Qualtrics will not collect personal information such as your name, email address, or give your computer's IP address to researchers, and your survey responses will remain confidential and anonymous.

Unidentified survey responses will be included in publications and/or presentations and reports to the Victorian Department of Health and Human Services to improve services delivered to pregnant women in Victoria.

You can access the Qualtrics privacy statement here ([linked](#)). No individual names will be collected. No identifying service information will be included in any public reporting, publications or/and presentations and your individual responses to this survey will remain confidential.

CONTACT

If you have any questions about this evaluation or survey, please contact Nafisa Yussf at nafisa.yussf@mh.org.au

By beginning this survey, you indicate that:

- You have read and understood the above information and
- You voluntarily agree to participate and
- You are 18 years of age or older.

ELECTRONIC CONSENT: By clicking on the 'I agree' button, you are consenting to participate in this survey.

I agree

I disagree

End of Block: Block 2

**Please note some questions are combined for influenza and pertussis; and hepatitis B birth dose and HBIG administration for the purpose of this appendix. However, questions were asked separately in the survey*.*

General questions

1. What is your age group?
2. What is your identified gender?
3. Do you mainly work at a **hospital** or a **community** service? *(All questions asked in this survey will relate to your main workplace you identify in this question)*
 - Yes/No

*If working in **Hospital** setting:*

4. Workplace: describe where you work most of your week:
 - Public hospital
 - Private hospital
 - Homebirth / private practice
 - Other (please specify)
5. What is your current role? (Tick all that apply)

*If working in **Community** setting:*

6. Where is your main place of work located?
 - Inner metropolitan
 - Outer metropolitan
 - Regional city
 - Rural Victoria
7. Workplace: describe where you work most of your week:
 - Local council Maternal and Child Health
 - General practice
 - Community health service
 - Aboriginal Community Controlled Health Services
 - Multicultural/Refugee health
 - Other (please specify)
8. What is your current role?

9. On a Likert Scale of 1-5 (or Not Applicable) (1= not confident at all, 5 =very confident). How confident are you that all pregnant women who do not speak English, receive an **appropriate interpreter** at your service?

Service delivery: Influenza and pertussis

10. Does your service routinely provide **influenza/ pertussis** vaccinations to pregnant women?

- Yes /No/ Don't know

If no/don't know: Skip to Q12.

11. If yes: who administers **influenza/ pertussis** vaccinations to pregnant women in your service? (Tick all that apply)

- Doctor
- Midwife immuniser
- Nurse immuniser (non-midwife)
- Pharmacist (influenza only)
- Other (please specify)

12. If no/don't know: where does your service refer pregnant women for their **influenza/ pertussis** vaccinations? (Tick all that apply)

- Local government immunisation service
- General practice
- Community health centre
- Aboriginal controlled health organisation
- Pharmacy (influenza only)
- Other (please specify)
- Don't know
- We don't refer women for vaccination

If routinely provide influenza/pertussis vaccinations to pregnant women:

13. What procedures are used in your hospital to encourage maternal vaccinations? (Tick all that apply)

- Checklists that prompt all discussion of maternal vaccines with pregnant women
- Provision of educational material about maternal vaccines to pregnant women
- Other (please specify)
- None
- Don't know

14. On a Likert Scale of 1-5 (or Not Applicable): How confident are you that all pregnant women in your care are **offered influenza vaccination** by the third trimester?

15. On a Likert Scale of 1-5 (or Not Applicable): How confident are you that all pregnant women in your care are **offered pertussis vaccination** between 20-32 weeks of gestation during their pregnancy?

16. How do you know if a pregnant woman accessing your service has already received **influenza/pertussis** vaccinations at another service? (Tick all that apply)

- We/I rely on the woman to inform me (verbal report)
- We/I routinely contact the other service
- We/I routinely contact the local government immunisation service
- We/I routinely check the antenatal record booklet (Victorian Maternity Record)
- We/I routinely check Australian Immunisation Register (AIR)
- Other (please specify)

17. **For community ONLY:** Where are maternal **influenza/pertussis** vaccinations recorded in your service? (Tick all that apply) –

- Electronic health record
- Paper based record
- Other (please specify)
- Don't know

Service delivery: Hepatitis B

18. The next part of this survey asks questions about hepatitis B management for mothers with hepatitis B and their infants. Do you provide clinical services to mothers with hepatitis B?

- Yes/No.

If NO: (working in HOSPITAL, skip to Q28) and (working in COMMUNITY, skip to Q32)

19. For a woman accessing your service, how do you confirm her hepatitis B status? (Tick all that apply)

- We/I rely on verbal report from the woman
- We/I check Birthing Outcome System (BOS)
- We/I check other electronic medical record
- We/I check the paper record provided by the woman from other health service
- We/I contact the woman's other health service directly
- We/I order a hepatitis B test
- Other (please specify)
- We/I don't confirm women's hepatitis B status
- Don't know

20. If a pregnant woman tests positive for hepatitis B, what are the next steps that occur in your service?
(Tick all that apply)

- We/I manage and provide consultation directly to the woman about her hepatitis B
- We/I refer to specialised physician/ infectious diseases clinic in a public service
- We/I refer to private specialist (infectious diseases or gastroenterology)
- We/I refer to General Practitioner with a special interest in hepatitis B
- We/I routinely refer to hospital antenatal clinic
- Other (please specify)
- We/I don't test pregnant women for hepatitis B
- No further action taken

Questions 21-25: On a Likert Scale of 1-5 (or Not Applicable):

21. How confident are you that all pregnant women in your service are **offered testing** for hepatitis B?
22. For women with hepatitis B attending your service, how confident are you to **discuss her hepatitis B status** with her?
23. How confident are you that all pregnant women with hepatitis B attending your service have hepatitis B **viral load (HBV DNA)** testing during the second trimester?
24. How confident are you that all pregnant women attending your service with hepatitis B and a high viral load (HBV DNA) are **prescribed antiviral therapy** in the third trimester?
25. How confident are you that all women with hepatitis B attending your service are linked to appropriate **ongoing care** for their hepatitis B during pregnancy or after delivery?

26. For women with hepatitis B, how is their hepatitis B status communicated to other services, (e.g., GP, MCHN, birthing services etc)? (Tick all that apply)

- We/I rely on the woman to inform the service
- We/I write on the shared care record
- We/I write on the discharge summary notes
- We/I note on the My Health, Learning & Development book (green baby book)
- We/I send information directly to the other service
- We/I write a referral letter to the other service
- Other (please specify)
- We/I don't communicate woman's hepatitis B status to other services
- Don't know

27. What resources or support do you provide pregnant women with hepatitis B about their hepatitis B care during pregnancy? (Tick all that apply)

- Written information in English
- Written information in a language other than English
- Recommend online resources
- Verbal discussion only
- Refer women to community health organisations (e.g., multicultural, Aboriginal, hepatitis organisations)
- Other (please specify)
- No resources or support provided

Hepatitis B: Child's vaccination

28. **For hospitals ONLY:** Does your hospital seek consent from pregnant women in antenatal clinic for the administration of hepatitis B **birth dose** vaccination for their infant prior to presenting for delivery?

- Yes /No/Don't know

29. **For hospitals ONLY:** *For pregnant women with hepatitis B*, does your hospital seek consent from pregnant women in antenatal clinic for the administration of hepatitis B **immunoglobulin (HBIG)** for their infant prior to presenting for delivery?

- Yes /No/ Don't know

Questions 30-33: on a Likert Scale of 1-5 (or Not Applicable):

30. **For hospitals ONLY:** How confident are you that hepatitis B **birth dose** vaccination is administered within 24 hours in your hospital to infants born to mothers with hepatitis B?

31. **For hospitals ONLY:** How confident are you that hepatitis B **immunoglobulin** is administered within 12 hours of birth in your hospital to infants born to mothers with hepatitis B?

32. **For community ONLY:** How confident are you that routine infant vaccinations including hepatitis B (**polyvalent vaccination at 2, 4 and 6 months**) are administered to children born to mothers with hepatitis B attending your service?

33. How confident are you that women with hepatitis B attending your service are **advised to test their children** for hepatitis B post vaccination?

System gaps and improvements

If service routinely provides influenza, pertussis and hepatitis B service to pregnant women:

34. What do you think are some of the barriers to the administration of **influenza/pertussis** vaccination for pregnant women in your service? (Tick all that apply)

- Lack of awareness for staff offering vaccination to pregnant women

- Lack of adequately trained staff
- No standardised procedures and/or policies
- Women have to go to different internal service for vaccination
- Women have to go to a different external provider for vaccination
- Pregnant women decline influenza vaccination
- No appropriate influenza resources for pregnant women
- Vaccine stock out
- Inadequate access to vaccine storage facilities
- Other (please specify)
- No barriers to the administration of influenza vaccination to pregnant women in our service
- Not applicable (outside of my scope of work)

35. What do you think are some of the barriers for [guideline-based care](#) delivery for mothers with **hepatitis B** and their infants in your health service? (Tick all that apply)

- No standardised procedures and/or policies for hepatitis B management during pregnancy
- Staff not adequately trained in hepatitis B care and delivery for pregnant women
- No infectious diseases, gastroenterology or hepatology services available
- Unclear recordings of woman's hepatitis B status in the health record
- Lack of communication between services caring for pregnant women with hepatitis B
- No appropriate hepatitis B resources for pregnant women with hepatitis B
- Other (please specify)
- All of the above
- No barriers for guideline-based care delivery for mothers with hepatitis B and their infants in our service
- Not applicable (outside of my scope of work)

36. **For hospitals ONLY:** What do you think are the barriers for hepatitis B **birth dose/immunoglobulin (HBIG)** administration in your hospital? (Tick all that apply)

- Lack of hepatitis B training for staff
- Lack of clarity on who is responsible for the administration of hepatitis B birth dose/HBIG
- No clear guidelines and/or procedures for hepatitis B birth dose/HBIG
- No standing orders
- Variation in individual staff attitudes to promoting hepatitis B birth dose vaccination/HBIG administration
- Perceived contraindication to administer hepatitis B birth dose/HBIG (e.g., Prematurity)
- Hepatitis B birth dose/HBIG stock out
- Women decline to hepatitis B birth dose/HBIG for their baby
- Inadequate access to vaccine storage facilities
- Short stay in hospital
- Transfer of baby from delivery suite to intensive care (NICU) and/or high dependency (HDU)
- Other (please specify)
- All of the above
- No barriers for hepatitis B birth dose delivery in our hospital
- Not applicable (outside of my scope of work)

37. Has the COVID-19 pandemic had any impact on influenza, pertussis and/or hepatitis B service delivery for pregnant women and their infants at your service?

- Yes/No

38. If yes, what was the impact? And what changes have been implemented to address these, if any? (Free text).

39. Has any non-COVID-19 related changes to influenza, pertussis and/or hepatitis B vaccination service delivery occurred in your service in the last few years? If so, what changes occurred and why? And what changes were implemented? (Free text).

40. Do you have other comments or recommendations on influenza, pertussis and/or hepatitis B care for pregnant women and their infants? If so, please comment below (Free text).

End of survey.

Thank you for your time completing this survey. For more information about influenza, pertussis and/or hepatitis B maternal vaccination, please visit:

- Hepatitis B: Hepatitis B pregnancy care guidelines: <https://www.health.gov.au/resources/pregnancy-care-guidelines/part-f-routine-maternal-health-tests/hepatitis-b#342-testing-for-hepatitis-b-infection-in-pregnancy>
- Australian Immunisation Handbook: <https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/hepatitis-b>
- Influenza: Australian Immunisation Handbook <https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/influenza-flu>
- Pertussis: Australian Immunisation Handbook <https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/pertussis-whooping-cough>

If you have any questions about the survey, please contact Nafisa Yussf at nafisa.yussf@mh.org.au.

Thank you!

Attachment C

Healthcare Providers Survey distributed to the following organisation

Jan-Jun 2021

#	Organisation/group
1.	Safer Care Victoria Newsletter
2.	Victorian Maternal and Child Health Service Newsletter
3.	Victorian Hepatitis B Alliance
4.	The Australian Nursing and Midwifery Federation
5.	The Australian Primary Care Nurses Association (APNA)
6.	Safer Care Maternity forum
7.	Utopia Refugee and Asylum Seeker Health
8.	Boroondara City Council Maternal Child Health
9.	Northwest Melbourne PHN VHHITAL program newsletter
10.	North Richmond Community Health
11.	Cancer Council Victoria Nurses & General Practitioners Newsletters
12.	Victorian Refugee Health Network
13.	Mercy Health (Werribee)
14.	Alpine Health (Myrtleford, Bright, Mt Beauty)
15.	Australasian Hepatology Association
16.	Eastern Melbourne Primary Health Network
17.	Gippsland Primary Health Network
18.	Murry Primary Health Network
19.	Southeast Melbourne Primary Health Network
20.	Western Victorian Primary Health Network