### Online Appendix. Difference in responses between pre- and post-training questionnaires (n=122)

| Statements                                                                 | Pre-training questionnaire | Mean change from pre- to post-training questionnaire | p-value* |
|----------------------------------------------------------------------------|----------------------------|------------------------------------------------------|----------|
| **Attitudes**                                                              |                            |                                                      |          |
| I would like to become a qualified pharmacist immunizer.                   | 5                          | 0.01                                                 | 0.70     | 0.984    |
| I would like to administer (inject) vaccinations during my intern year.   | 5                          | 0.14                                                 | 0.73     | 0.042*   |
| I would like to administer (inject) vaccinations when I am a pharmacist.  | 5                          | 0.06                                                 | 0.66     | 0.330    |
| I see value in a pharmacy delivering immunization services.               | 5                          | 0.12                                                 | 0.65     | 0.002*   |
| It is valuable to integrate immunization training into the pharmacy degree.| 5                          | 0.17                                                 | 0.46     | <0.001*  |
| It is valuable to include immunization training in the final year of the pharmacy degree. | 5                          | 0.23                                                 | 0.54     | <0.001*  |
| All pharmacy students should learn how to administer (inject) a vaccine.  | 5                          | 0.13                                                 | 0.81     | 0.072    |
| All pharmacy students should learn how to set up and operate an immunization service. | 5                          | 0.30                                                 | 0.74     | <0.001*  |
| I am fearful of injecting a vaccine to a patient.                         | 3                          | 0.53                                                 | 1.49     | <0.001*  |
| All pharmacists should undergo immunization training.                     | 5                          | 0.23                                                 | 0.81     | 0.003*   |
| Community pharmacy is an appropriate location for implementation of an immunization service. | 5                          | 0.16                                                 | 0.76     | 0.002*   |
| Providing an immunization service in a community pharmacy could improve career satisfaction for pharmacists. | 5                          | 0.40                                                 | 0.73     | <0.001*  |
| Providing an immunization service in a community pharmacy improves relationships between pharmacists and patients. | 5                          | 0.43                                                 | 0.69     | <0.001*  |
| In my opinion, there is public demand for a pharmacist-administered immunization service in community pharmacies. | 5                          | 0.37                                                 | 0.90     | <0.001*  |
| **Confidence**                                                            |                            |                                                      |          |
| I feel confident to administer (inject) vaccinations to adults.            | 2                          | 1.66                                                 | 1.40     | <0.001*  |
| I feel confident to administer (inject) vaccinations to children aged 10 to 18 years. | 2                          | 1.48                                                 | 1.41     | <0.001*  |
| I feel confident to administer (inject) an intramuscular injection to another person. | 2                          | 1.79                                                 | 1.40     | <0.001*  |
| I feel confident to administer (inject) a subcutaneous injection to another person. | 2                          | 1.73                                                 | 1.34     | <0.001*  |
| I feel I need training in implementing and delivering an immunization service in the pharmacy. | 5                          | 1.60                                                 | 1.43     | <0.001*  |
| I feel I need training in injection techniques.                           | 5                          | 1.84                                                 | 1.43     | <0.001*  |
| I feel confident in communicating with, and screening, patients for their suitability for vaccinations. | 3                          | 1.12                                                 | 1.34     | <0.001*  |
| Statements                                                                 | Pre-training questionnaire | Mean change from pre- to post-training questionnaire | p-value<sup>a</sup> |
|---------------------------------------------------------------------------|----------------------------|-----------------------------------------------------|-------------------|
|                             | Median | IQR | Mean | SD |                           |
| **Self-Perceived Knowledge**                                             |                    |            |      |               |                          |
| I am confident in my knowledge of vaccine-preventable diseases.           | 3      | 2   | 1.05 | 1.02 | <0.001*           |
| I am knowledgeable about how the vaccines pharmacists can inject work.   | 4      | 1   | 1.07 | 1.13 | <0.001*           |
| I am knowledgeable about the effectiveness of those vaccines.            | 4      | 1   | 0.8  | 1.22 | <0.001*           |
| I am knowledgeable about the contraindications and precautions for use of those vaccines. | 3      | 2   | 1.41 | 1.30 | <0.001*           |
| I am knowledgeable about the common adverse reactions which may occur following vaccinations. | 4      | 1   | 1.11 | 1.06 | <0.001*           |
| I am knowledgeable about the clinical information within the *Australian Immunisation Handbook* on vaccinations pharmacists can administer. | 3      | 1   | 1.74 | 1.21 | <0.001*           |
| I am knowledgeable about Western Australia’s legislation in relation to pharmacist-administered vaccinations. | 2      | 1   | 1.88 | 1.11 | <0.001*           |
| I am aware of, and know the content of, the *Western Australian Immunisation Strategy 2016-2020*. | 2      | 1   | 1.26 | 2.05 | <0.001*           |
| I am knowledgeable about the procedures and protocols for infection control. | 3      | 2   | 1.55 | 1.08 | <0.001*           |
| I am knowledgeable about the procedures and protocols for safe handling of biohazard waste. | 3      | 2   | 1.27 | 1.10 | <0.001*           |
| **Self-Perceived Skills**                                               |                    |            |      |               |                          |
| I have the skills to implement and deliver an immunization service.      | 2      | 2   | 2.32 | 1.22 | <0.001*           |
| I have the skills to administer (inject) a vaccine.                      | 2      | 1   | 2.55 | 1.17 | <0.001*           |
| I know how to recognise an anaphylactic reaction.                        | 4      | 1   | 1.04 | 1.08 | <0.001*           |
| I know how to recognise and manage a vasovagal (fainting) reaction.     | 3      | 2   | 1.24 | 1.78 | <0.001*           |
| I have the skills to handle other adverse reactions from vaccinations.   | 2      | 1   | 2.05 | 1.21 | <0.001*           |
| I have the skills to handle an emergency situation following vaccinations, including adrenaline injection following anaphylaxis. | 3      | 2   | 1.74 | 1.34 | <0.001*           |
| I know how to screen patients for suitability for vaccinations in the pharmacy. | 2      | 2   | 1.97 | 1.25 | <0.001*           |
| I know when to refer a patient to a general practitioner for vaccinations. | 3      | 2   | 1.28 | 1.88 | <0.001*           |
| I can communicate effectively with patients regarding immunizations.     | 3      | 2   | 1.45 | 1.08 | <0.001*           |
| I can communicate effectively with other healthcare professionals regarding immunizations. | 3      | 2   | 1.60 | 1.17 | <0.001*           |
| I know how to obtain informed consent from a patient.                    | 4      | 2   | 0.84 | 1.07 | <0.001*           |

<sup>a</sup> p-values obtained from the Wilcoxon Signed Rank test.

<sup>b</sup> Questions were reverse coded (eg 1 = strongly agree recoded to 5 = strongly agree).