Immunisation in Shetland

Annual Report 2012-13

“The two public health interventions that have had the greatest impact on the world’s health are clean water and vaccines”

World Health Organisation

December 2013

Prepared by Dr Susan Laidlaw, Immunisation Co-ordinator for NHS Shetland
Executive Summary

Immunisation is one of the key public health measures to prevent infection and illness and death due to infectious disease. In Scotland, as in the rest of the UK, there are a number of national immunisation programmes including two population based programmes, the childhood immunisation programme and the annual influenza vaccination programme for over 65s. There are also a number of selective programmes which are targeted at groups or individuals at increased risk of certain infections such as TB and hepatitis B.

The Board’s Vaccination and Immunisation Group meets regularly and reports to the Control of Infection Committee on uptake rates, and on local actions to improve uptake and comply with national policy. Of note this year is the continued low uptake of MMR, although there is a gradual trend to children receiving their first MMR earlier and the uptake rates are slowly improving. There is also a relatively low rate of uptake of the pre-school booster by age of school entry which is being addressed through the Vacc & Imm Group and individual practices. The uptake of flu vaccine rose a little this year, but continues to fall slightly short of the target of 75% for people aged 65 and over. There was an increase in the uptake amongst pregnant women in Shetland compared to last year, although still not as high as the rest of Scotland.

During the first quarter on 2013, work started on planning the local implementation of an ambitious programme of changes to the national immunisation programme. These changes will be implemented during 2013-14 and include introduction of a live oral rotavirus vaccine for babies; changes to the meningitis C programme; introduction of live zoster (shingles) vaccine for 70 year olds. The biggest development is the introduction of live nasal flu vaccination for all children aged 2-17 which will be rolled out over the next three years. This will result in over 4000 children in Shetland being offered flu vaccine every year either in primary care or school.

The following areas of work were also covered during 2012-13:

- Childhood immunisation programme; seasonal flu and pneumococcal programme, through Primary Care
- HPV immunisation programme for teenage girls, through School Health
- Implementation of a national temporary programme to immunise pregnant women against pertussis.
- BCG programme for high risk individuals, through Child Health
- Hepatitis B vaccination for high risk individuals, through a range of services locally including the addictions services, the sexual health clinic, primary care and services in Grampian.
- A local campaign to promote uptake of the teenage booster and MMR amongst teenagers in 2012
- Continued promotion and delivery of immunisation training by the Immunisation Co-ordinator

Primary care teams also provide travel health advice and vaccinations to their patients and the Occupational health services provided the relevant vaccinations for health and other staff.
Acronyms and abbreviations

AIDS  Acquired Immune Deficiency Syndrome
BCG  Bacillus Calmette–Guerin (vaccine)
CoIC  Control of Infection Committee
DEIP  Developing Effective Immunisation Practice
GP  General Practitioner
Hib  Haemophilus Influenza B
HIV  Human Immunodeficiency Virus
HPS  Health Protection Scotland
HPV  Human Papilloma Virus
ISD  Information and Statistics Division
MenC  Meningitis C
MMR  Measles, mumps and rubella (vaccine)
PCV  Pneumococcal Vaccine
SIRS  Scottish Immunisation Recall System
TB  Tuberculosis
WHO  World Health Organisation
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1 Introduction

Immunisation is one of the key public health measures to prevent infection and illness and death due to infectious disease. In Scotland, as in the rest of the UK, there are a number of national immunisation programmes including two population based programmes, the childhood immunisation programme and the annual influenza vaccination programme for over 65s. There are also a number of selective programmes which are targeted at groups or individuals at increased risk of certain infections such as TB and hepatitis B.

2 Co-ordination of immunisation programmes in Shetland

Every NHS Board in Scotland has a local Immunisation Co-ordinator and in Shetland the Public Health Consultant has this role. The Co-ordinator is responsible for the local implementation of the national immunisation programmes and new initiatives such as publicity campaigns. The Co-ordinator is also responsible for monitoring and improving immunisation uptake locally and addressing any issues that might have an adverse effect on uptake.

The delivery of immunisation programmes is not the responsibility of any one department or service: general practices, school health, community nursing, occupational health; pharmacy; maternity services; public health; health improvement and the Community Health and Care Partnership all have a role to play.

A local ’Vaccination and Immunisation Group’ was set up in 2003 to co-ordinate and improve the delivery of vaccination programmes in Shetland. The group has multi-professional representation and aims to link with all the primary care practices in Shetland. Work to date has focused on monitoring and improving the reporting of vaccination uptake rates; investigating problems with low uptake; improving the systems for delivery of the vaccination programmes and developing training opportunities for staff. The group meets on a quarterly basis, more often if required. The membership of the group was reviewed in 2011-12 to ensure that all practices are represented and receive papers even though it is difficult for some to attend the meetings. The group membership for 2012-13 is attached as Appendix A.

3 Reporting

Immunisation uptake rates for the childhood immunisation programme, the HPV programme and the annual ‘flu vaccination programme are reported nationally by Information Services Division (ISD) of National Services Scotland. Local reports are produced for the quarterly Surveillance Report that is presented to the Control of Infection Committee (CoIC) and also for the Control of Infection Committee Annual Report.

The Vaccination and Immunisation Group reports to the Control of Infection Committee on a regular basis and provides a written report on activity for the CoIC Annual Report.
4 Vaccination programmes delivered in 2012-13

4.1 Childhood immunisation programme

We continued to implement the childhood immunisation programme as per the national schedule (Appendix B). The programme aims to protect children against a number of serious and potentially fatal infectious diseases: polio; tetanus; diphtheria; pertussis (whooping cough); haemophilus influenza B (Hib); meningitis C; pneumococcal disease; measles; mumps and rubella. Some of these infections are more serious in childhood (such as Hib), but for others the primary vaccinations given in early childhood are supplemented by booster doses in later childhood which aim to confer lifelong immunity (such as tetanus). The childhood programme has been successful in dramatically reducing the numbers of cases of these diseases, although ongoing surveillance is required to ensure that the programme continues to be effective and to identify where there are problems. For example, following a drop in uptake of MMR vaccine (because of concerns over side effects; now known to be unfounded), the numbers of cases of measles and mumps increased.

The childhood programme is delivered in primary care, mainly by practice nurses in the ten general practices in Shetland. Children are invited for their vaccinations in a variety of ways; generally the health visitors remind parents of the primary immunisations at two, three and four months and practices may also send invitation letters. For the later immunisations, the practices may send letters or telephone parents. Lerwick Health Centre and Brae Health Centre both use the national call-recall system ‘SIRS’ which automatically sends out invitations at the appropriate age for each set of vaccinations.

4.2 Human Papilloma Virus (HPV) Immunisation programme

2012-13 was the fifth year of the HPV immunisation programme. This programme aims to protect girls against the Human Papilloma Virus which can cause changes in the cervix potentially leading to cervical cancer. The programme is designed to protect girls before they become sexually active and exposed to HPV, which is very common virus within the population. The HPV vaccination course consists of three doses given over a six month period. The programme is delivered in schools for nearly all S2 girls and a few older girls who missed completing the programme when they were in S2 (for various reasons). Because the programme is delivered in school, it has to be fitted in around the school terms and exam periods which can make scheduling quite challenging.

Year five of the programme involved continuing with the routine programme for secondary 2 girls, with the catch up programme for older girls now finished. However, the HPV vaccine used in the programme changed in August 2012. Previously Cervarix had been used, it was then changed to Gardasil which protects against four strains of HPV rather than two.

4.3 Seasonal Flu and pneumococcal programme

Every year seasonal flu vaccination is offered to people who are considered to be at greater risk of serious illness and complications due to influenza. This includes all people aged 65 and over, people with certain medical conditions and all pregnant women. The ‘flu season starts in September and runs through to the end of March,
with most vaccinations being given in October to December. There are many different strains of ‘flu virus which can change over time so every year there are slightly different strains circulating in the community. New vaccines are manufactured each year to include the flu strains that are predicted to be the most prevalent during the flu season. In 2012-13 the vaccine included:

- A/California/7/2009 (H1N1)pdm09-like virus;
- A/Victoria/361/2011 (H3N2)-like virus*; and
- B/Wisconsin/1/2010-like virus *

* different component to that in the 2011/12 season vaccines.

The ‘at risk’ groups include in the ‘flu vaccination programme in 2012-13 are listed in Appendix C.

Most flu vaccines are given in primary care by practice nurses, and also in the community by community nurses. ‘Frontline’ healthcare staff and some social care staff are also offered flu vaccination through occupational health services. This year there was an increased emphasis on vaccination of frontline clinical staff, particularly those in the higher risk areas, including maternity and elderly care in Shetland.

Like ‘flu vaccination, pneumococcal vaccination is offered to everyone at the age of 65 but unlike ‘flu vaccination, only a single dose is required and it does not have to be repeated each year.

4.4 **BCG programme**

BCG vaccination helps to protect against tuberculosis. Until 2005, BCG was offered to all children at the age of 12-13 through a school based programme because young people were the most at risk. However the epidemiology of tuberculosis has changed and now in the UK, tuberculosis is mostly found in specific groups of people including those who come from countries where TB is common and people with HIV or AIDS.

The BCG programme has therefore changed and is now offered selectively, just to people who are considered to be at greater risk of TB. The groups of people who should be offered BCG are listed in Appendix D. The programme focuses on identifying babies antenatally so that they can be given BCG soon after birth. Other children are identified opportunistically. There are also procedures in place to identify people entering the UK from high prevalence countries who may be at higher risk. The criteria for BCG for travel purposes is now very limited, however there are still a number of occupational groups that should be offered the vaccine.

In 2012/13 in addition to this routine programme, we also ran a vaccination programme for a group of children who had been identified as contacts of a person with TB in an NHS Grampian hospital.

Most people need to have a tuberculin skin test (Mantoux test) before they are given BCG. Staff are required to undertake specific training in order to administer the Mantoux test and any subsequent BCG vaccination. Because there are relatively few children and adults in Shetland requiring BCG, we have a small number of staff who are trained in the procedures. During 2012/13 this included two occupational health nurses; a child health nurse and public health nurse.
Mantoux and BCG Vaccination Clinics are held locally in the Child Health Department of the Gilbert Bain Hospital. During the period April 2012 to March 2013, a total of 12 mantoux tests were carried out, and 16 BCGs administered.

4.5 Other vaccinations

Hepatitis B vaccination is recommended for a number of groups who are higher risk of coming into contact with this blood borne virus including injecting drug users, babies born to high risk mothers, people travelling to certain countries, healthcare workers and a number of other occupational groups and people who are at risk of sexual exposure including gay men; and men who have sex with men. This vaccination can be given in primary care; in the prescribing clinic (drug and alcohol services) and the sexual health clinic; and through occupational health. Through the local work on sexual health and blood borne viruses, we are particularly promoting hepatitis B vaccination for people at risk through sexual activity.

People travelling abroad, for holidays or for work, may require further vaccinations in addition to all those mentioned above. These include hepatitis A, cholera and yellow fever. The GP practices in Shetland can provide most of the vaccinations, for a fee if necessary. However, vaccination against yellow fever can only be provided through practices and clinics that have been designated as a Yellow Fever Centre by the WHO. In Shetland this is currently provided by the Hillswick practice.

5 Training

5.1 Promoting Effective Immunisation Practice

This training programme was developed by Health Protection Scotland and NHS Education for Scotland and consists of an internet based course along with a practical, supervised practice, element. The Immunisation Co-ordinator mentors most of the staff who are registered for the programme.

During 2011/12 a total of five staff commenced the course: two completed the whole course, with a further seven with just the practical element to do.

By the end of March 2012 a total of 34 staff had registered on the course; 12 had completed and six had left their post or came off the course. Of the remaining 16, six were actively working through the course, seven had nearly finished and three had not started.

5.2 Immunisation Update Training

The Immunisation Co-ordinator runs an annual half day training session open to all staff involved in immunisation. The 2012 session was held in May 2012, and the 2013 session was held in March 2013. 11 staff attended in May, and 17 in March and the feedback was excellent, with all staff requesting the annual updates to continue. The feedback report is attached as Appendix E.

We also had the opportunity to video-conference into the Health Protection Scotland Biannual immunisation Update Day in September 2012 and five staff attended for parts of the day.
6 Information dissemination and awareness raising

There are nationally produced patient information leaflets, booklets and posters for each immunisation programme. They are produced and distributed by either Health Scotland or the Scottish Government, usually in conjunction with Health Protection Scotland. In Shetland, local dissemination of these materials is done by the Health Improvement Resource Officer.

7 Uptake Figures

7.1 Childhood Immunisation uptake in 2012-13

Immunisation uptake figures are recorded by quarter and are reported as a percentage of all the children who reached a certain age within that quarter. The 12 month uptake figures are for Diptheria, Tetanus, Pertussis, Polio, Hib (all 3 doses); Meningitis C vaccinations (3 doses before October 2006, now 2 doses) and PCV (2 doses introduced in October 2006). The uptake at 24 months is for MMR (1st dose), PCV booster (given at 13 months from October 2006) and Hib/MenC booster (given at 12 months from October 2006).

The pre-school figures are for completed courses of Diptheria, Tetanus, Polio (4th dose) and MMR (1st dose and 2nd dose) at age 6. Nationally, the reporting of the pre-school figures changed in 2007 so that they are now reported at 5 years. This is to bring Scotland in line with England.
### 7.1.1 Immunisation uptake rate at 12 months

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*Uptake figures for 2 doses (previously 3) from October 2006

These figures show a high uptake for the primary immunisations during 2012-13 at 98%. The low figures in 2009-10 were due to an issue with the recording system.
### 7.1.2 Immunisation uptake rate at 24 months

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<td>Tetanus</td>
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<td>Pertussis</td>
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The table above shows that by the age of 2 years, the uptake of primary immunisations remains similar. The uptake of the PCV booster and Hib/Men C booster (both now given at 12-13 months along with the first dose of MMR) has shown a gradual increase since these boosters were introduced in 2006. See below for commentary on the uptake of MMR vaccination.
7.1.3 Immunisation uptake - at age 5 years (full course with boosters)

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</tr>
</tbody>
</table>

*Uptake of the combined Hib/MenC booster and the PCV booster, by 5 years, was reported for the first time in fourth quarter of 2010. These vaccines were introduced into the routine schedule in September 2006, and these children were the first cohort to be offered the vaccine as part of their routine schedule.

The table above shows uptake of primary immunisation and booster doses by age five (ie around the time of school entry). The Hib / MenC and PCV boosters should be offered at aged 12-13 months. The diptheria / tetanus / pertussis / polio booster and 2\textsuperscript{nd} (final) dose of MMR should offered at aged 3yrs and 4months - 3 years and 6 months. Therefore children should be fully protected by the time they go to school aged five. It can be seen that the uptake of the pre-school booster, although gradually increasing, has not reached the 95% level required for herd immunity by the time children are going to school. This is thought to be due to a number of reasons including
children and parents being in less contact with the practice and health visitors than when the children were babies, and less likely to be reminded about the booster. Also, the booster used to be given much later, nearer the age of five, and so many parents do not realise that it should be given earlier. Children should be protected before they go to school, and ideally around about the time they start nursery.

7.1.4 Immunisation uptake - Pre-school (full course including boosters) at age 6 years

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number in cohort</td>
<td>253</td>
<td>292</td>
<td>245</td>
<td>248</td>
<td>239</td>
<td>249</td>
<td>254</td>
<td>258</td>
<td>282</td>
<td>85</td>
<td>59</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>Diptheria (booster)</td>
<td>90.5%</td>
<td>93.5%</td>
<td>86.5%</td>
<td>76.6%</td>
<td>82.8%</td>
<td>91.6%</td>
<td>89.8%</td>
<td>88.8%</td>
<td>89.4%</td>
<td>90.6%</td>
<td>91.5%</td>
<td>87.1%</td>
<td>87.0%</td>
</tr>
<tr>
<td>Tetanus (booster)</td>
<td>90.5%</td>
<td>93.2%</td>
<td>86.5%</td>
<td>76.6%</td>
<td>82.8%</td>
<td>91.6%</td>
<td>89.8%</td>
<td>88.8%</td>
<td>89.4%</td>
<td>90.6%</td>
<td>91.5%</td>
<td>87.1%</td>
<td>87.0%</td>
</tr>
<tr>
<td>Pertussis (booster)</td>
<td>92.8%</td>
<td>92.8%</td>
<td>86.5%</td>
<td>76.6%</td>
<td>82.8%</td>
<td>91.6%</td>
<td>89.8%</td>
<td>88.8%</td>
<td>89.4%</td>
<td>90.6%</td>
<td>91.5%</td>
<td>87.1%</td>
<td>87.0%</td>
</tr>
<tr>
<td>Polio (booster)</td>
<td>95.6%</td>
<td>92.8%</td>
<td>86.9%</td>
<td>76.2%</td>
<td>82.4%</td>
<td>91.2%</td>
<td>89.8%</td>
<td>88.8%</td>
<td>89.0%</td>
<td>90.6%</td>
<td>91.5%</td>
<td>87.1%</td>
<td>85.5%</td>
</tr>
<tr>
<td>PCV (booster)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>87.2%</td>
<td>84.7%</td>
<td>86.4%</td>
<td>87.1%</td>
</tr>
<tr>
<td>Hib/MenC (booster)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>88.3%</td>
<td>88.2%</td>
<td>91.5%</td>
<td>90%</td>
</tr>
<tr>
<td>MMR (2 doses)</td>
<td>71.5%</td>
<td>70.2%</td>
<td>67.8%</td>
<td>63.7%</td>
<td>69.9%</td>
<td>85.9%</td>
<td>84.5%</td>
<td>84.9%</td>
<td>83.7%</td>
<td>82.4%</td>
<td>89.8%</td>
<td>80.0%</td>
<td>82.6%</td>
</tr>
</tbody>
</table>

|                                |              |              |              |              |              |              |              |              |              |              |            |            |             |
| MMR (1 dose)                   | –            | –            |              |              |              |              |              |              |              |              | 87.9%      | 91.1%      | 94.6%       | 94.0%       | 93.3%       | 92.6%       | 94.0%       | 91.8%       | 93.2%       | 92.9%       | 97.1%       |

Uptake is measured again at age six. This is generally around the time when children get their P1 checks and so parents are reminded about the immunisations being up to date and the uptake measured at this point is generally slightly higher. It should also be noted however, that if a child has not had PCV by the age of two, then they do not need to have it at all and so there is little increase in uptake for that between age two and five or six.
7.2 MMR
As can be seen from the tables and the graph below, uptake of first dose of MMR at two years is showing a slow upward trend, with some variation each quarter, although it has still not yet reached the 95% target for herd immunity.

However analysis of the figures show the number of children who receive a first dose MMR does increase with age: in 2012-13, 96.6% of children reaching the age of five had received their first MMR. As in previous years, there appear to be a number of parents who delay vaccination until their child is nearer three or four years of age. These children are therefore not picked up in the 24 month uptake figures. The cohort of children who had their second birthday during 2009-10 are the same cohort who turned five in 2012-13. As can be seen from the figures above, only 87.6% of these children had their 1st MMR by age 2 but the uptake had increased to 96.6% by the time they were five.

Since a local campaign two years ago to encourage children to have their first dose of MMR and 12-13 months, there has been a shift to children getting their first dose earlier, although this has not yet made a significant impact on the uptake as measured at 24 months and five years.

The uptake of the 2nd dose of MMR is still low, with a slight upward trend. We know that some of these children have their first MMR late and so may not ‘get round’ to having their second MMR before they are six, if ever. We are trying to reduce this problem by encouraging the second MMR vaccination at 1-3 months after the first in this group of children. As there are now more children having their first MMR before the age of two, this should eventually be reflected in an increased number having two doses before they go to school. In the meantime, children who have only had one dose may be unprotected.

There are still a number of families who refuse MMR (sometimes all vaccinations) and these appear to be concentrated in certain areas of Shetland. When parents have very fixed views on vaccinations, there is very little that we can do to persuade them to change their beliefs. However, where parents are unsure or ambivalent about vaccination then healthcare staff can help them to make an informed decision based on good scientific evidence.
7.3 HPV immunisation uptake
The HPV immunisation programme started in 2008 and is delivered through schools, just to girls. The vaccination, consisting of three doses over a six month period, is offered to all girls in S2. In addition, for the first three years there was a catch up programme, and all girls older than S2 but under the age of 18 when the programme started have also been offered the vaccination.

7.3.1 Uptake amongst girls in Secondary 2 (routine cohort)

<table>
<thead>
<tr>
<th>School year</th>
<th>Cohort</th>
<th>1\textsuperscript{st} dose by end school year</th>
<th>2\textsuperscript{nd} dose by end school year</th>
<th>3\textsuperscript{rd} dose by end school year</th>
<th>3\textsuperscript{rd} dose one year later</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008/09</td>
<td>Shetland Scotland</td>
<td>132</td>
<td>93.9%</td>
<td>93.7%</td>
<td>93.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29286</td>
<td>93.9%</td>
<td>92.7%</td>
<td>90.9%</td>
</tr>
<tr>
<td>2009/10</td>
<td>Shetland Scotland</td>
<td>141</td>
<td>86.5%</td>
<td>92.6%</td>
<td>85.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28778</td>
<td>85.1%</td>
<td>91.1%</td>
<td>83.0%</td>
</tr>
<tr>
<td>2010/11</td>
<td>Shetland Scotland</td>
<td>164</td>
<td>90.2%</td>
<td>91.8%</td>
<td>89.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28932</td>
<td>90.2%</td>
<td>90.2%</td>
<td>72.0%</td>
</tr>
<tr>
<td>2011/12</td>
<td>Shetland Scotland</td>
<td>132</td>
<td>92.4%</td>
<td>93.1%</td>
<td>91.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28140</td>
<td>91.7%</td>
<td>91.7%</td>
<td>85.6%</td>
</tr>
<tr>
<td>2012/13</td>
<td>Shetland Scotland</td>
<td>143</td>
<td>90.9%</td>
<td>93.5%</td>
<td>90.0%</td>
</tr>
</tbody>
</table>
For the first year of the HPV programme, uptake amongst S2 girls was amongst the highest in Scotland, however it was one of the lowest the following year which has continued into 2010/11. A number of girls / parents had actively declined the vaccination in 2009/10. It can be seen from the chart that a number of girls complete their course during the following year (ie in S3). This is due to issues such as missing the scheduled immunisation sessions due to sickness or other reasons or delaying for clinical reasons such as immunosuppressant treatment.

7.4 2010/11 Seasonal Flu Immunisation Uptake

Seasonal flu vaccine is recommended for all people aged 65 and over and for patients aged under 65 in certain high risk group. The uptake amongst both these populations is monitored on a national basis, with breakdowns by Board and individual GP practice being fed back to NHS Boards. The national target for uptake amongst the over 65s has been 75% for a few years. It can be difficult to measure uptake amongst the under 65 risk groups, because individual patients may fall into more than one risk group and therefore the number of people to be offered vaccination may be over estimated; but a target was set for 2011-12 of 75%.

Last year, during the 2010-11 flu season, pregnant women were included as an at risk group for the first time. It is difficult to collect data on uptake amongst pregnant women because the number of women who are pregnant is constantly changing as some women deliver and others become pregnant during the season.

<table>
<thead>
<tr>
<th>Uptake at end March 2013</th>
<th>Cohort</th>
<th>Uptake</th>
<th>Uptake in 2011/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 65s (Target 75%)</td>
<td>Shetland</td>
<td>4,079</td>
<td>74.2%</td>
</tr>
<tr>
<td></td>
<td>Scotland</td>
<td>943,941</td>
<td>76.6%</td>
</tr>
<tr>
<td>Under 65 at risk groups</td>
<td>Shetland</td>
<td>2,587</td>
<td>51.7%</td>
</tr>
<tr>
<td></td>
<td>Scotland</td>
<td>592,455</td>
<td>56.0%</td>
</tr>
<tr>
<td>Pregnant women - not in at risk group</td>
<td>Shetland</td>
<td>222</td>
<td>52.7%</td>
</tr>
<tr>
<td></td>
<td>Scotland</td>
<td>46,176</td>
<td>52.8%</td>
</tr>
<tr>
<td>Pregnant women – at risk group</td>
<td>Shetland</td>
<td>25</td>
<td>60.0%</td>
</tr>
<tr>
<td></td>
<td>Scotland</td>
<td>3773</td>
<td>68.7%</td>
</tr>
<tr>
<td>Carers</td>
<td>Shetland</td>
<td>236</td>
<td>58.9%</td>
</tr>
<tr>
<td></td>
<td>Scotland</td>
<td>42,014</td>
<td>51.9%</td>
</tr>
</tbody>
</table>

These figures are extracted from practice systems by Health Protection Scotland, and are provisional estimates based on data from 99% of practices in Scotland (100% of Shetland practices)

The flu vaccination uptake figures for NHS Shetland are slightly lower for all groups other than pregnant women. For the over 65s, the uptake in Shetland has sat just under the 75% target for a number of years. There has been a significant increase in the percentage of pregnant women receiving flu vaccine, although it is still lower than the average for Scotland. In general figures are slightly lower compared to Scotland as a whole, except for carers where we have one of the highest uptakes.
7.4.1 NHS Staff flu vaccination

During 2012/13, a total of NHS Shetland staff who could have had the vaccine was 586. Of these, 87 had the vaccine, giving an overall uptake rate of 14.8%. This is lower than last year when 19.3% of all staff had the vaccine. 342 staff are categorised as clinical / frontline staff (ie the target group for flu immunisation) and of these only 54 were given the flu vaccine by occupational health, an uptake rate of 15.8%. This is lower than last year when 28.4% of clinical staff were vaccinated. However, a number of staff may attend their GP for flu vaccination if they are in one of the clinical risk groups. Anecdotally, the reasons for staff not having the flu vaccine are around the practicalities of actually getting it. The average for uptake of flu vaccine amongst healthcare workers in Scotland is 35.5%, with some Boards achieving 50-60%.

The GP practices that are not directly managed by NHS Shetland provide the flu vaccination for their own staff.

Social care staff with direct client contact are also recommended to have the seasonal flu vaccination, provided by their employer. However this year Shetland Islands Council made the decision not to offer vaccination for their staff. It is hoped that this will be addressed in future years, particularly with the integration of health and social care services.
Appendix A

Appendix A: Membership of Vaccination and Immunisation Group during 2012-13

(Note: not all individuals were members for the whole year)

Dr Susan Laidlaw  Immunisation Co-ordinator / Consultant in Public Health Medicine, NHS Shetland  (Chair)
David Anderson  Pharmacy Manager, NHS Shetland
Sally Hall  Pharmacy Technician, NHS Shetland
Bernadette Dunne  Senior Occupational Health Nurse, NHS Shetland
Hilary Franklin  Practice Nurse, Yell Health Centre
Caroline Garrick  Practice Nurse, Hillswick Health Centre
Anne Graham / Rhona Asher  Practice Nurse, Levenwick Health Centre
Amy Leask  Practice Nurse, Scalloway Health Centre
Katherine Morrison  Practice Nurse, Lerwick Health Centre
Helen Taylor  Practice Manager, Brae Health Centre
Judith Clubb  Practice Nurse, Bixter Health Centre
Lisa Sutherland  Primary Care Manager
Edna Mary Watson  Assistant Director of Nursing (Community) NHS Shetland

Practice contacts

Dr Helen Ward  GP, Walls Health Centre
Jenny Hicks  Health Visitor / Practice Nurse, Whalsay Health Centre
Julie White  Practice Nurse, Unst Health Centre
# Appendix B: Childhood Immunisation Schedule (during 2012 - 2013)

<table>
<thead>
<tr>
<th>AGE</th>
<th>PROTECTION AGAINST:</th>
<th>VACCINES GIVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td><strong>Tuberculosis</strong></td>
<td><strong>BCG</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Hepatitis B</strong></td>
<td><strong>Hepatitis B (3 doses at 0,1,6 months)</strong></td>
</tr>
<tr>
<td>2 months</td>
<td><strong>Diphtheria, tetanus, pertussis, polio, <em>Haemophilus influenzae</em> type b</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; DTaP-Hib-IPV</td>
</tr>
<tr>
<td></td>
<td><strong>Pneumococcus</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; PCV</td>
</tr>
<tr>
<td>3 months</td>
<td><strong>Diphtheria, tetanus, pertussis, polio, <em>Haemophilus influenzae</em> type b</strong></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; DTaP-Hib-IPV</td>
</tr>
<tr>
<td></td>
<td><strong>Meningococcal group C</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Men C</td>
</tr>
<tr>
<td>4 months</td>
<td><strong>Diphtheria, tetanus, pertussis, polio, <em>Haemophilus influenzae</em> type b</strong></td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; DTaP-Hib-IPV</td>
</tr>
<tr>
<td></td>
<td><strong>Meningococcal group C</strong></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Men C</td>
</tr>
<tr>
<td></td>
<td><strong>Pneumococcus</strong></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; PCV</td>
</tr>
<tr>
<td>12–13 months</td>
<td><strong>Measles, mumps, rubella</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; MMR</td>
</tr>
<tr>
<td></td>
<td><strong>Pneumococcus</strong></td>
<td><strong>PCV (booster)</strong></td>
</tr>
<tr>
<td></td>
<td><em>Haemophilus influenzae</em> type b and Meningococcal group C**</td>
<td><strong>Hib/MenC (booster)</strong></td>
</tr>
<tr>
<td>40 – 42 months</td>
<td><strong>Diphtheria, tetanus, pertussis, polio, Measles, mumps, rubella</strong></td>
<td>DTaP-IPV or dTaP/IPV (booster)</td>
</tr>
<tr>
<td>‘Pre-school booster’</td>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; MMR</td>
</tr>
<tr>
<td>12-13 years (S2) Girls only</td>
<td><strong>Human papilloma virus vaccine HPV</strong></td>
<td>HPV(3 doses at 0,1-2 and 6 months)</td>
</tr>
<tr>
<td>13–18 years</td>
<td><strong>Diphtheria, tetanus, polio</strong></td>
<td>Td-PV</td>
</tr>
<tr>
<td>‘School leaving / teenage booster’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix C: Seasonal Influenza Clinical Risk Groups 2012-13

<table>
<thead>
<tr>
<th>Clinical Risk Category</th>
<th>Examples (but decisions should be based on clinical judgement)</th>
</tr>
</thead>
</table>
| **Chronic respiratory disease, including asthma** | - Chronic obstructive pulmonary disease (COPD) including chronic bronchitis and emphysema; bronchiectasis, cystic fibrosis, interstitial lung fibrosis, pneumoconiosis and bronchopulmonary dysplasia (BPD)  
- Asthma that requires continuous or repeated use of inhaled or systemic steroids or with previous exacerbations requiring hospital admission  
- Children who have previously been admitted to hospital for lower respiratory tract disease |
| **Chronic heart disease** | - Congenital heart disease  
- Hypertension with cardiac complications  
- Chronic heart failure  
- Individuals requiring regular medication and/or follow-up for ischaemic heart disease |
| **Chronic renal disease** | - Chronic kidney failure  
- Nephrotic syndrome  
- Kidney transplantation. |
| **Chronic liver disease** | - Cirrhosis  
- Biliary Atresia  
- Chronic hepatitis |
| **Chronic neurological disease** | - Stroke and transient ischaemic attacks (TIAs)  
- Conditions in which respiratory function may be compromised (eg polio syndrome sufferers)  
- Clinicians should consider on an individual basis the clinical needs of patients including individuals with cerebral palsy, multiple sclerosis and related or similar conditions; or hereditary and degenerative disease of the nervous system or muscles. |
| **Diabetes Mellitus** | - Type 1 diabetes  
- Type 2 diabetes requiring insulin or oral hypoglycaemic drugs  
- Diet controlled diabetes |
| **Immunosuppression** | - Immunosuppression due to disease or treatment  
- Patients undergoing chemotherapy leading to immunosuppression  
- Asplenia or splenic dysfunction  
- HIV infection at all stages  
- Individuals treated with or likely to be treated with systemic steroids for more than a month at a dose equivalent to prednisolone at 20mgs or more per day (any age) or for children under 20 kgs a dose of 1mg or more per kg per day.  
- It is difficult to define at what level of immunosuppression a patient could be considered to be at a greater risk of the serious consequences of influenza and should be offered flu vaccination. This decision is best made on an individual basis and left to the patient’s clinician  
- Some immunocompromised patients may have a suboptimal immunological response to the vaccine. |
| **Pregnant Women** | - Pregnant women not in the other clinical risk categories above and who have not already received monovalent H1N1v vaccine should receive the trivalent seasonal influenza vaccine for the 2010/11 influenza season. Pregnant women are at increased risk from the H1N1v strain, which is expected to be the predominant circulating influenza strain in the 2010/11 influenza season and they may not be protected should they not have already received influenza A (H1N1)v containing vaccine. |
Appendix D: Recommendations for BCG Vaccination

The first three groups of children can normally be vaccinated without prior Tuberculin testing

1. All infants (aged 0-12 months) living in areas of the UK where the annual incidence of TB is 40/100,000 or greater. This does not currently include any Health Board area in Scotland.

2. All infants (aged 0-12 months) with a parent or grandparent who was born in a country where the annual incidence of TB is 40/100,000 or greater.

3. Previously unvaccinated children aged one to five years with a parent or grandparent who was born in a country where the annual incidence of TB is 40/100,000 or greater.

The following groups of individuals should be Tuberculin tested and vaccinated if negative.

4. Previously unvaccinated tuberculin negative children aged from six to under 16 years of age with a parent or grandparent who was born in a country where the annual incidence of TB is 40/100,000 or greater.

5. Previously unvaccinated, tuberculin negative persons under 16 years of age who are contacts of cases of respiratory tuberculosis. [Identified through contact tracing by NHS Shetland Public Health or other Public Health or Health Protection Team]

6. Previously unvaccinated, tuberculin negative new entrants to the UK who are under 16 years of age and who were born in or who have lived for a prolonged period (at least 3 months) in a country with an annual TB incidence of 40/100,000 or greater.

7. Previously unvaccinated tuberculin negative individuals under the age of 16 years who are going to live or work with local people for more than three months in a country where the annual incidence of TB is 40/100,000 or greater.

8. Previously unvaccinated, tuberculin negative individuals aged under 35 years working in the following occupations:
   
   • health care workers who will have contact with patients or clinical materials
   • laboratory staff who will have contact with patients, clinical materials or derived isolates
   • veterinary and other staff who handle animal species known to be susceptible to TB
   • prison staff working directly with prisoners
   • staff in care homes for the elderly
   • staff of hostels for homeless people and facilities accommodating refugees and asylum seekers

Unvaccinated, tuberculin-negative individuals aged under 35 years in these occupations are recommended to receive BCG. There are no data on the protection afforded by BCG vaccine when it is given to adults aged 35 years or over.
Appendix D

Not all healthcare workers are at an equal risk of TB. There are likely to be categories of healthcare workers who are at particular risk of TB, and should be part of the clinical risk assessment when the use of BCG is being considered for a healthcare worker over 35 years of age.

*Extracted from Immunisation against infectious disease (The Green Book) 2006*
Appendix E:

Evaluation of Immunisation Update Training March 2013

The immunisation update training is a half day session for anyone involved in delivering immunisation programmes, particularly those involved in childhood immunisations. The course aims to bring staff up to date with the current national programmes and to highlight some potential future changes. It also looks at local issues such as commonly raised queries and local progress with implementing the programmes, including uptake rates and how to improve them. This update session supplements the HPS / NES on-line training course ‘Promoting Effective Immunisation practice’.

17 staff attended the training session in March 2013. These included 15 practices nurses (at least one from every practice in Shetland); a community nursing team leader and a pharmacy technician. The programme for the session is attached as Annex 1. The focus of this update was on the planned changes to the vaccination programme in autumn 2013 and on dealing with vaccine incidents.

Learning Objectives

By the end of the course, delegates will be able to:

- Describe the current UK immunisation schedule, including imminent changes
- Describe current issues in immunisation in Shetland, including uptake of immunisations
- Plan immunisation schedules for children presenting late or with incomplete immunisations, including those born outwith UK
- Understand what are the commonest vaccine incidents and how to deal with them

Feedback from delegates

All those attending the training sessions were asked to complete a brief feedback form (attached as annex 2) to answer the following questions on a scale of 1-6 (definitely no - definitely yes).

1. Were the learning outcomes met?
   11 answered ‘definitely yes’; 6 answered ‘yes’.

2. Did you personally learn anything new?
   11 answered ‘definitely yes’; 6 answered ‘yes’.

3. Was the content what you expected?
   7 answered ‘definitely yes’; 10 answered ‘yes’

4. Would you do something similar again (on different topics)?
   12 answered ‘definitely yes’; 4 answered ‘yes' and 1 answered ‘probably yes’

5. Would you recommend this training to colleagues?
   13 answered ‘definitely yes’; 4 answered ‘yes’.

23
Delegates were asked to identify the best aspects of the session. Responses included:

- Being able to discuss with other colleagues
- Good update, relaxed, able to ask questions if needed
- Being amongst others who are doing immunisations
- Definite, clear info about changes to schedule; information about new schedules; updating on new vaccines; keeping up to date with all the changes in vaccines
- Good refresher, preparatory for new changes
- All the new / soon to be rolled out information
- highlight refresher is always good.
- The wealth of knowledge expressed by the trainer
- The true / false quiz
- Everything was all valuable
- ‘well worth the update

The only suggestion for improvement were two requests for tea and biscuits. The only other comments was:
‘would welcome further info about new vaccines when it is available.’

**Conclusion**

The training sessions evaluated well, with delegates feeling that the learning objectives had been met and that they had personally learnt something new. Staff said they would attend future updates, and recommend the sessions to colleagues. The annual update session will therefore continue in 2013/14

In addition, a series of shorter sessions are planned for August 2013 which will concentrate on the changes to the vaccination programme.

Susan Laidlaw
May 2013
Shetland NHS Board
Immunisation Update Training Session
Wednesday 27th March 2013
Practical Skills Room, Staff Development, Montfield

1.30 Welcome and introduction
   Learning outcomes
1.40 Changes to the national immunisation programmes:
   ● Seasonal flu immunisation for all children
   ● Introduction of Meningitis C vaccine for teenagers
   ● Introduction of oral rotavirus vaccination for babies
   ● Introduction of herpes zoster vaccination for older people

2.40 Local update
   ● Hepatitis B vaccination
   ● BCG vaccination
   ● Pre-school booster

3.00 Break
3.15 Dealing with vaccination incidents
3.50 Common queries and issues
4.10 Further sources of information, advice and training
4.20 Evaluation
4.30 End
Appendix F

Appendix F: Vaccination and Immunisation Group Work Plan 2013-4

<table>
<thead>
<tr>
<th>Objective</th>
<th>Action</th>
<th>Lead</th>
<th>Target</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CO-ORDINATION AND REPORTING</strong></td>
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</tbody>
</table>
| 1. To continue to co-ordinate delivery of the programmes; surveillance; audit and evaluation and training | • Vacc & Imm Group to meet quarterly with Immunisation co-ordinator as chair  
• Vacc & imm Group to agree an annual workplan  
• Vacc & Imm Group papers and other relevant information to be circulated to all GP practices | Immunisation co-ordinator and Vacc & Imm Group | | On-going |
| 2. To report on activity and outcomes both within NHS Shetland and to partner organisations and the public | • Chair of Group to report to Control of Infection Committee on a regular basis  
• Annual Report to be published on line as part of Public Health Annual Report | Immunisation co-ordinator | | Annual Report and Workplan to be produced by end August 2013 |
| **DELIVERY OF VACCINATION PROGRAMMES** | | | | |
| 3. To implement the changes to the national immunisation programmes | • Extension to Childhood flu vaccination programme: 2 and 3 yr olds | Individual GP practices responsible for children within the practice | Aim for 75% uptake | Implemented by end Dec 2013 |
| | • Extension of childhood flu vaccination programme: primary school pilots | Child Health Dept | Aim for 75% uptake | Implemented by end Dec 2013 |
| | • Introduction of rotavirus vaccine to primary immunisations | Individual GP practices responsible for children within the practice | 95% uptake | Commence June 2013 and ongoing |
| | • Introduction of shingles vaccine to 70 yr olds and catch up for 79 yr olds | Individual GP practices responsible for children within the practice | Aim for 75% uptake | Commence Sept 2013 and ongoing |
| | • Changes to meningitis C programme, including introduction of a booster for teenagers. | Individual GP practices responsible for children within the practice | 95% uptake | Commence August 2013 and ongoing |
## Appendix F

### 4. To continue to deliver the national childhood immunisation programmes to the target populations according to the national inclusion criteria and schedules

- **Delivery of childhood vaccination programme**
  - Individual GP practices responsible for children within the practice
  - 95% uptake for each vaccination at set ages
  - **Ongoing**

- **Implement the ongoing programme to girls in S2 through school based sessions to be delivered by the school health team.**
  - Child Health Dept (School nurse & Community Children’s nurse)
  - 70% uptake of the full course amongst girls eligible for S2 girls
  - **Ongoing**

- **Continue to provide information on immunisation to older children through dissemination of Health Scotland booklet for 12-18 yr olds in S2 and reminder letter in S4.**
  - Child Health Dept
  - Booklet - August 2013
  - Letter – March 2014

- ** Provision of Mantoux tests and BCG vaccination as per Green Book recommendations**
  - Audit Mantoux testing / BGC programme for TB
  - Annual Report
  - Child Health Dept (School nurse & Community Children’s nurse)
  - 100% ante-natal identification of babies in a high risk group
  - 95% uptake amongst babies and children identified as being in a high risk group
  - **Ongoing**
  - Audit by end March 2014

### 5. To deliver hepatitis B vaccination to relevant at risk groups

- **To provide hepatitis B vaccination to those identified in risk groups as per green Book**
  - Contacts of carriers – through Public Health / Primary Care
  - Neonatal – through maternity services
  - Injecting drug users – through prescribing clinic
  - MSM and others at risk through sexual practices – SHWB clinic & primary care
  - Occupational / travel – as below
  - HIS Sexual Health Standards - 70% of MSM attending SH services receive at least one dose of hep B vaccine.
  - **Ongoing**

### 6. To deliver the annual influenza vaccination programme for 2012/13

- **Provision of flu and pneumococcal vaccinations in the over 65s and at risk groups**
  - Individual GP practices
  - 75% uptake of flu vaccine amongst the over 65s for the 2012-13 season (Oct to March)
  - Flu - dependent on delivery of vaccine supplies:
## Appendix F

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<tbody>
<tr>
<td><strong>7. To continue to deliver occupational vaccination programmes</strong></td>
<td><strong>Provision of flu vaccination to NHS Staff: proactive focus on high risk depts. (Maternity &amp; Ronas Ward)</strong></td>
<td>NHS Shetland Occupational Health Dept – for NHS staff</td>
<td>50% uptake amongst staff, esp where there are high risk patients</td>
<td>October 2013 – end March 2014</td>
</tr>
<tr>
<td></td>
<td><strong>Provision of vaccinations for occupational reasons</strong></td>
<td>NHS Shetland Occupational Health Dept – for NHS staff Other organisations to make arrangements for their own staff</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>8. To continue deliver a travel vaccination service</strong></td>
<td><strong>Provision of appropriate travel vaccinations as required by individuals</strong></td>
<td>Individual GP practices Hillswick Practice – Yellow Fever Vaccination Centre</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>9. To contribute to the management of public health incidents / outbreaks</strong></td>
<td><strong>Provision of vaccination and immunoglobulin therapy as required in an outbreak situation</strong></td>
<td>Public Health (Incident Management Team)</td>
<td>Dependent on incident</td>
<td>Dependent on incident</td>
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### MONITORING AND AUDIT

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<tbody>
<tr>
<td><strong>10. To monitor uptake of vaccines included in childhood immunisation programme; the annual flu vaccination programme and the new HPV programme</strong></td>
<td><strong>Receive quarterly uptake figures from ISD</strong>&lt;br&gt;<strong>Produce quarterly reports for Vacc &amp; Imm Group</strong>&lt;br&gt;<strong>Include in quarterly and annual surveillance reports for Control of Infection Committee</strong></td>
<td>Immunisation co-ordinator</td>
<td>Produce reports one week prior to meetings</td>
</tr>
<tr>
<td></td>
<td><strong>Produce an individual uptake report for each practice on an annual basis</strong></td>
<td>Immunisation co-ordinator</td>
<td>By end March 2014</td>
</tr>
<tr>
<td></td>
<td><strong>Receive HPV programme uptake reports from ISD: include in quarterly &amp; annual reports</strong></td>
<td>Immunisation co-ordinator</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td><strong>Receive flu programme uptake reports from HPS: include in quarterly &amp; annual reports</strong></td>
<td>Immunisation co-ordinator</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>11. To ensure that vaccines are being maintained at the correct fridge temperature, to maintain efficacy.</strong></td>
<td><strong>Each practice to undertake at least one fridge audit</strong></td>
<td>Practice contacts</td>
<td>By end March 2014</td>
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</tbody>
</table>
## TRAINING

12. To improve the knowledge, skills and confidence of staff involved in delivery of immunisation programmes, and reduce risk of adverse events and incidents through provision of training and regular updates

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible</th>
<th>Target</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to promote the on-line immunisation training course and support staff to complete the course (Promoting Effective Immunisation practice)</td>
<td>Immunisation co-ordinator (Registering Officer)</td>
<td>Five staff to complete course</td>
<td>By end March 2014</td>
</tr>
<tr>
<td>Plan and deliver immunisation update training sessions</td>
<td>Immunisation co-ordinator with Staff Development</td>
<td>Deliver training to at least 12 staff by end March 2014</td>
<td>Run session by end March 2014</td>
</tr>
<tr>
<td>Plan and deliver training sessions for staff involved in delivery of new programmes: childhood flu (nasal vaccine); rotavirus; shingles vaccine and Men C.</td>
<td>Immunisation co-ordinator with Staff Development</td>
<td>Deliver training to at least 20 school health / community / practice staff by end Aug 2013</td>
<td>End August 2013</td>
</tr>
<tr>
<td>Ensure staff have access to basic life support and anaphylaxis training (to include local training package / on-line training and a practical session)</td>
<td>Staff Development and community BLS trainers</td>
<td>All staff who administer vaccine to attend at least once a year</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

## AWARENESS RAISING AND DISSEMINATION OF INFORMATION RESOURCES

13. To continue to provide appropriate information resources to GP practices and other staff both pro-actively and as requested

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to provide resources on request and as advised by Health Scotland / Scottish Government Health Directorates</td>
<td>Health Promotion Resource Officers</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

14. To continue local awareness raising campaigns to increase uptake of MMR immunisation according to the national schedule and to ensure older children and young people are fully immunised

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to disseminate locally produced posters as required</td>
<td>Immunisation co-ordinator and Vacc &amp; Imm Group</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Encourage GP practices and other settings to run promotional displays</td>
<td></td>
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<tr>
<td>Work with Youth Services to raise awareness with young people</td>
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</tbody>
</table>

15. To implement national awareness raising campaigns for the changes to the immunisation programme.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination of resources as provided by Scottish Government and Health Scotland</td>
<td>Immunisation co-ordinator and Health Promotion Resource Officers</td>
<td>August – December 2013</td>
</tr>
</tbody>
</table>