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Infection Reports

Vaccine-preventable infections

- **Shingles vaccine coverage report, England, September 2014 to February 2015**
  - **Main report**
  - **Appendix: Vaccine coverage by age cohort and CCG.**
- **Laboratory reports of *Haemophilus Influenzae* by age group and serotype: England and Wales, January to March 2015**
- **Laboratory reports of hepatitis A and C (England and Wales): October to December 2014**

Diary

- **Applications of High Throughput Genomics and Proteomics in Infection (18th conference in the genomics and proteomics of human pathogens), 25-26 June 2015, London.**

Infection report

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Shingles vaccine coverage report, England, September 2014 to February 2015

Coverage of the shingles vaccine in routine and catch-up cohorts for the first half of the 2014/15 programme is comparable to that recorded for the same time period last year.

Introduction

A report describing the first three months of the second year (September 2014 to November 2014) of the herpes zoster (shingles) vaccination programme in England was published in January 2015 [1]. Here we present data for the first six months of the second year of this national immunisation programme which started on the 1 September 2014.

This year (1 September 2014 to 31 August 2015) the shingles vaccine should be offered to patients aged 70 years for the routine programme (born between 2 September 1943 and 1 September 1944) and patients aged 78 and 79 years (born between 2 September 1934 and 1 September 1936) for the catch-up programme. Eligibility is determined by the patient's age on 1 September 2014. From 1 September 2014 GPs may continue to offer immunisation to all those who became eligible as 70 year-olds from 1 September 2013 but have not yet been immunised [2]. The programme aims to reduce the incidence and severity of shingles by boosting individuals' pre-existing varicella zoster virus immunity.

As a live viral vaccine, the shingles vaccine is contraindicated for individuals with severe immunosuppression either as a result of combination immunosuppressive therapies or due to a known primary or acquired immunodeficiency state such as leukaemia or lymphoma. It is also contraindicated for pregnant women. It is important to assess the eligibility of individuals prior to offering the shingles vaccine. Whilst a number of individuals in the eligible cohort are likely to have underlying medical conditions, many are likely to benefit and therefore prior assessment is essential to ensure individuals who can benefit from the vaccine are not excluded [3,4].

Methods

Aggregated GP practice level shingles vaccine coverage data are automatically uploaded via participating GP IT suppliers to the ImmForm* website on a monthly and annual basis. The ImmForm website provides a secure platform for vaccine coverage collections and these data collections are monitored, validated and analysed by PHE.

* ImmForm is the system used by Public Health England to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for the NHS.

Results

In total 7,583/ 7,817 (97.0%) GP practices reported shingles vaccine coverage data in February 2015 (compared to 94.1% of GP practices in November 2014). This ranged from 90.2% of practices in Kent and Medway Area Team, to 99.7% of practices in West Yorkshire Area Team (see table).

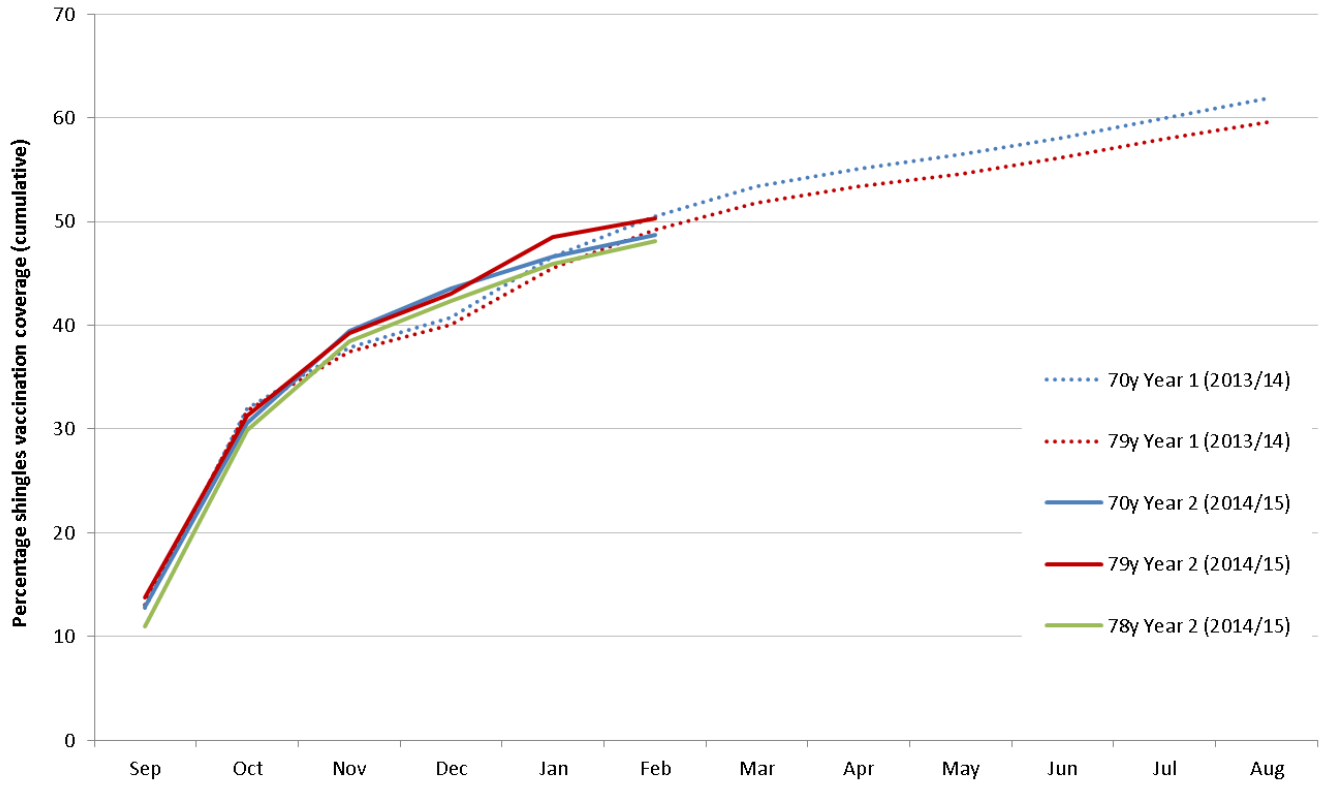
Cumulative s**hingles vaccine coverage in England by age cohort and Area Team – 1 September 2014 to 28 February 2015**

Area Team (code)	Per cent of practices reporting data in Feb. 2015	Percentage of age cohort vaccinated to end February 2015		
		Routine 70 years	Catch-up 79 years	Catch-up 78 years
Cheshire, Warrington and Wirral (Q44)	95.8	52.2	57.1	53.4
Durham, Darlington and Tees (Q45)	97.1	50.5	49.5	48.3
Greater Manchester (Q46)	91.7	47.0	47.3	45.7
Lancashire (Q47)	99.6	48.7	50.4	49.6
Merseyside (Q48)	93.5	45.6	49.4	47.0
Cumbria, Northumberland, Tyne and Wear (Q49)	96.7	51.7	54.2	52.2
N Yorkshire and Humber (Q50)	97.4	49.2	49.9	48.2
S Yorkshire and Bassetlaw (Q51)	98.6	49.8	48.7	47.9
W Yorkshire (Q52)	99.7	51.7	51.2	48.4
Arden, Herefordshire and Worcestershire (Q53)	97.8	50.2	54.1	51.9
Birmingham and Black Country (Q54)	94.9	44.7	47.4	44.9
Derbyshire and Notts. (Q55)	99.3	53.1	51.6	49.2
East Anglia (Q56)	97.6	53.8	53.0	50.9
Essex (Q57)	98.1	43.6	44.8	42.1
Hertfordshire and the S Midlands (Q58)	97.1	52.6	51.9	50.1
Leicestershire and Lincolnshire (Q59)	99.2	53.6	54.2	51.7
Shropshire and Staffordshire (Q60)	93.8	49.1	51.8	48.9
Bath, Gloucestershire, Swindon and Wiltshire (Q64)	99.0	51.4	52.3	50.0
Bristol, N Somerset, Somerset and S Gloucestershire (Q65)	97.8	50.1	51.6	49.8
Devon, Cornwall and Scilly Isles (Q66)	94.3	50.6	52.2	50.4
Kent and Medway (Q67)	90.2	46.7	49.2	48.6
Surrey and Sussex (Q68)	99.1	45.8	48.7	45.6
Thames Valley (Q69)	98.7	50.5	53.6	53.1
Wessex (Q70)	99.1	51.3	54.3	51.7
London (Q71)	98.3	38.6	43.1	39.6
ENGLAND	97.0	48.7	50.3	48.1

Overall coverage of the shingles vaccination programme in England in February 2015 was 48.7% for the routine 70 year old cohort (compared to 50.5% at the same point in 2014), 50.3% in the 79 year old catch-up cohort (compared to 49.2% at the same point in 2014), and 48.1% in the 78 year old catch-up cohort (Figure). The same coverage was observed for males and females (48.3%) for those aged 70 years. Higher coverage was observed in males as compared to females in the catch-up cohorts (79 years: 49.4 vs. 45.1%, 78 years: 49.7 vs. 45.9%).

Coverage by Area Team ranged from 38.7% (London) to 57.1% (East Anglia) for the routine 70 year old cohort, 43.1% (London) to 57.1% (Cheshire, Warrington and Wirral) for the 79 year old catch-up cohort and 39.6% (London) to 53.4% (Cheshire, Warrington and Wirral) for the 78 year old catch-up cohort. All but one Area Team achieved ≥40% coverage for all three cohorts. Coverage estimates for Clinical Commissioning Group (CCG) by age cohort are available as an appendix to this report [5].

Cumulative shingles vaccine coverage in England by age cohort, September 2014 to February 2015 (Year 2), and September 2013 to August 2014 (Year 1)



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5. Shingles vaccine coverage report, England, September 2014 to February 2015, **appendix**: "Vaccine coverage in England by age cohort and Clinical Commissioning Group (CCG), 1 September 2014 to 28 February 2015".

Shingles vaccine coverage report, England, September 2014 to February 2015: Vaccine coverage in England by age cohort and Clinical Commissioning Group (CCG), 1 September 2014 to 28 February 2015

CCG name	Percentage of GP practices reporting	Percentage of age cohort vaccinated to end February		
		Routine 70 years	Catch-up 79 years	Catch-up 78 years
NHS AIREDALE, WHARFDALE AND CRAVEN CCG	100.0	44.3	46.1	40.1
NHS ASHFORD CCG	71.4	43.2	52.1	49.1
NHS AYLESBURY VALE CCG	100.0	52.5	54.7	59.1
NHS BARKING AND DAGENHAM CCG	100.0	39.7	45.5	41.5
NHS BARNET CCG	93.9	44.9	52.4	48.1
NHS BARNSLEY CCG	97.2	52.1	53.2	51.1
NHS BASILDON AND BRENTWOOD CCG	100.0	44.6	48.9	43.0
NHS BASSETLAW CCG	100.0	58.0	56.1	62.5
NHS BATH AND NORTH EAST SOMERSET CCG	100.0	57.1	53.2	56.4
NHS BEDFORDSHIRE CCG	98.2	55.1	54.5	54.2
NHS BEXLEY CCG	96.3	40.8	40.9	35.7
NHS BIRMINGHAM CROSSCITY CCG	94.8	40.9	43.2	39.0
NHS BIRMINGHAM SOUTH AND CENTRAL CCG	86.7	39.5	50.7	44.8
NHS BLACKBURN WITH DARWEN CCG	100.0	52.8	54.4	53.8
NHS BLACKPOOL CCG	100.0	46.1	50.8	50.9
NHS BOLTON CCG	100.0	52.5	53.4	50.7
NHS BRACKNELL AND ASCOT CCG	100.0	45.2	54.7	55.1
NHS BRADFORD CITY CCG	100.0	45.3	48.8	47.9
NHS BRADFORD DISTRICTS CCG	100.0	53.2	46.7	44.7
NHS BRENT CCG	100.0	41.7	45.2	43.0
NHS BRIGHTON AND HOVE CCG	97.8	41.4	43.7	39.8
NHS BRISTOL CCG	96.3	50.6	53.1	52.4

NHS BROMLEY CCG	100.0	39.4	46.1	41.5
NHS BURY CCG	87.9	42.9	41.4	39.3
NHS CALDERDALE CCG	100.0	47.2	52.1	44.7
NHS CAMBRIDGESHIRE AND PETERBOROUGH CCG	98.1	57.0	55.6	53.5
NHS CAMDEN CCG	100.0	33.2	36.8	33.3
NHS CANNOCK CHASE CCG	100.0	43.0	50.6	42.1
NHS CANTERBURY AND COASTAL CCG	81.0	45.9	46.8	52.5
NHS CASTLE POINT AND ROCHFORD CCG	100.0	43.4	36.4	36.2
NHS CENTRAL LONDON (WESTMINSTER) CCG	97.2	26.3	31.5	27.2
NHS CENTRAL MANCHESTER CCG	90.6	41.6	42.1	46.6
NHS CHILTERN CCG	100.0	52.0	56.2	53.0
NHS CHORLEY AND SOUTH RIBBLE CCG	96.9	49.5	51.1	48.0
NHS CITY AND HACKNEY CCG	97.7	31.1	34.3	30.1
NHS COASTAL WEST SUSSEX CCG	100.0	50.8	51.6	50.1
NHS CORBY CCG	100.0	55.5	52.0	54.7
NHS COVENTRY AND RUGBY CCG	96.0	47.6	52.3	48.7
NHS CRAWLEY CCG	100.0	50.1	50.4	47.0
NHS CROYDON CCG	100.0	41.4	42.3	40.9
NHS CUMBRIA CCG	95.1	50.8	53.3	50.5
NHS DARLINGTON CCG	100.0	50.4	52.2	48.6
NHS DARTFORD, GRAVESHAM AND SWANLEY CCG	88.2	42.5	42.6	42.3
NHS DONCASTER CCG	100.0	48.9	42.6	46.2
NHS DORSET CCG	99.0	54.4	55.6	52.6
NHS DUDLEY CCG	97.9	52.1	54.8	51.4
NHS DURHAM DALES, EASINGTON AND SEDGEFIELD CCG	95.1	52.8	50.3	50.8
NHS EALING CCG	100.0	32.0	34.6	28.6
NHS EAST AND NORTH HERTFORDSHIRE CCG	96.6	48.9	50.2	46.5
NHS EAST LANCASHIRE CCG	100.0	49.9	53.6	52.3
NHS EAST LEICESTERSHIRE AND RUTLAND CCG	100.0	53.4	59.2	57.0

NHS EAST RIDING OF YORKSHIRE CCG	97.3	48.2	50.2	48.4
NHS EAST STAFFORDSHIRE CCG	100.0	48.8	51.9	49.9
NHS EAST SURREY CCG	100.0	39.9	43.9	42.2
NHS EASTBOURNE, HAILSHAM AND SEAFORD CCG	95.2	44.4	44.0	47.4
NHS EASTERN CHESHIRE CCG	100.0	54.0	60.7	59.8
NHS ENFIELD CCG	100.0	40.9	47.7	45.2
NHS EREWASH CCG	100.0	64.3	58.8	58.1
NHS FAREHAM AND GOSPORT CCG	100.0	46.9	51.3	51.3
NHS FYLDE & WYRE CCG	100.0	43.3	45.6	45.1
NHS GATESHEAD CCG	96.8	43.5	52.2	48.2
NHS GLOUCESTERSHIRE CCG	98.8	51.8	54.7	51.5
NHS GREAT YARMOUTH AND WAVENEY CCG	100.0	49.9	51.7	49.7
NHS GREATER HUDDERSFIELD CCG	100.0	54.0	52.4	55.0
NHS GREATER PRESTON CCG	100.0	39.7	40.3	41.2
NHS GREENWICH CCG	100.0	40.9	44.9	34.4
NHS GUILDFORD AND WAVERLEY CCG	95.2	50.6	51.7	48.2
NHS HALTON CCG	100.0	46.6	46.7	43.0
NHS HAMBLETON, RICHMONDSHIRE AND WHITBY CCG	90.9	60.5	57.4	60.1
NHS HAMMERSMITH AND FULHAM CCG	100.0	24.7	23.7	19.2
NHS HARDWICK CCG	100.0	54.1	53.8	52.1
NHS HARINGEY CCG	95.7	35.8	38.7	36.1
NHS HARROGATE AND RURAL DISTRICT CCG	94.7	54.1	55.3	54.6
NHS HARROW CCG	97.1	41.6	49.3	42.7
NHS HARTLEPOOL AND STOCKTON-ON-TEES CCG	100.0	44.3	44.7	41.9
NHS HASTINGS AND ROTHER CCG	100.0	51.2	58.2	48.4
NHS HAVERING CCG	100.0	45.5	47.8	45.4
NHS HEREFORDSHIRE CCG	95.8	42.0	48.5	46.3
NHS HERTS VALLEYS CCG	94.0	50.4	52.9	49.6
NHS HEYWOOD, MIDDLETON AND ROCHDALE CCG	100.0	49.6	50.8	51.3

NHS HIGH WEALD LEWES HAVENS CCG	100.0	51.5	52.0	50.4
NHS HILLINGDON CCG	100.0	45.7	55.7	48.6
NHS HORSHAM AND MID SUSSEX CCG	100.0	45.2	51.6	46.1
NHS HOUNSLOW CCG	100.0	37.9	38.7	31.7
NHS HULL CCG	98.2	41.0	39.1	36.4
NHS IPSWICH AND EAST SUFFOLK CCG	97.6	56.5	54.6	49.8
NHS ISLE OF WIGHT CCG	94.1	49.2	49.7	43.5
NHS ISLINGTON CCG	100.0	38.7	48.5	42.1
NHS KERNOW CCG	89.9	49.1	49.1	49.8
NHS KINGSTON CCG	84.6	46.9	43.4	42.9
NHS KNOWSLEY CCG	100.0	45.4	54.5	50.2
NHS LAMBETH CCG	93.8	32.7	39.8	38.6
NHS LANCASHIRE NORTH CCG	100.0	59.1	53.1	52.3
NHS LEEDS NORTH CCG	96.4	57.0	60.9	58.1
NHS LEEDS SOUTH AND EAST CCG	100.0	55.6	55.6	47.9
NHS LEEDS WEST CCG	100.0	47.7	51.6	46.0
NHS LEICESTER CITY CCG	100.0	46.9	45.9	37.6
NHS LEWISHAM CCG	100.0	39.3	43.0	43.4
NHS LINCOLNSHIRE EAST CCG	100.0	47.1	46.7	46.2
NHS LINCOLNSHIRE WEST CCG	100.0	55.8	56.3	54.4
NHS LIVERPOOL CCG	84.9	41.0	46.3	46.5
NHS LUTON CCG	96.8	49.8	43.7	47.2
NHS MANSFIELD AND ASHFIELD CCG	100.0	51.4	44.9	46.5
NHS MEDWAY CCG	100.0	44.6	46.4	47.0
NHS MERTON CCG	100.0	40.1	44.8	41.8
NHS MID ESSEX CCG	100.0	43.0	43.6	42.4
NHS MILTON KEYNES CCG	100.0	56.8	50.4	46.1
NHS NENE CCG	98.6	54.4	53.6	52.4
NHS NEWARK & SHERWOOD CCG	93.3	43.5	36.1	34.7

NHS NEWBURY AND DISTRICT CCG	100.0	57.9	56.7	61.6
NHS NEWCASTLE NORTH AND EAST CCG	94.1	46.6	48.6	45.0
NHS NEWCASTLE WEST CCG	100.0	59.7	62.3	55.5
NHS NEWHAM CCG	100.0	42.1	53.1	51.5
NHS NORTH & WEST READING CCG	100.0	46.8	51.2	46.9
NHS NORTH DERBYSHIRE CCG	97.2	59.4	60.2	56.5
NHS NORTH DURHAM CCG	100.0	53.9	52.5	53.9
NHS NORTH EAST ESSEX CCG	95.2	44.3	50.7	46.3
NHS NORTH EAST HAMPSHIRE AND FARNHAM CCG	100.0	61.6	60.5	61.1
NHS NORTH EAST LINCOLNSHIRE CCG	100.0	46.1	47.9	49.5
NHS NORTH HAMPSHIRE CCG	100.0	48.4	53.5	48.2
NHS NORTH KIRKLEES CCG	100.0	53.4	52.4	47.3
NHS NORTH LINCOLNSHIRE CCG	100.0	42.2	43.5	40.4
NHS NORTH MANCHESTER CCG	94.4	39.3	45.2	40.4
NHS NORTH NORFOLK CCG	100.0	59.0	55.4	55.0
NHS NORTH SOMERSET CCG	96.0	46.9	49.1	49.9
NHS NORTH STAFFORDSHIRE CCG	100.0	49.1	52.1	49.6
NHS NORTH TYNESIDE CCG	100.0	52.2	52.9	50.9
NHS NORTH WEST SURREY CCG	100.0	40.7	45.4	40.9
NHS NORTH, EAST, WEST DEVON CCG	96.8	51.4	54.9	50.7
NHS NORTHUMBERLAND CCG	93.3	53.5	55.9	54.3
NHS NORWICH CCG	95.7	46.5	36.3	38.0
NHS NOTTINGHAM CITY CCG	100.0	47.1	48.3	46.4
NHS NOTTINGHAM NORTH AND EAST CCG	100.0	48.6	49.7	47.0
NHS NOTTINGHAM WEST CCG	100.0	51.2	52.7	46.7
NHS OLDHAM CCG	95.6	46.6	45.3	46.9
NHS OXFORDSHIRE CCG	96.3	51.4	55.3	54.3
NHS PORTSMOUTH CCG	100.0	51.1	49.1	46.9
NHS REDBRIDGE CCG	100.0	39.1	40.3	36.2

NHS REDDITCH AND BROMSGROVE CCG	100.0	50.7	51.2	50.4
NHS RICHMOND CCG	89.7	40.9	40.7	43.0
NHS ROTHERHAM CCG	100.0	49.1	51.4	47.5
NHS RUSHCLIFFE CCG	100.0	54.5	54.6	56.1
NHS SALFORD CCG	83.0	38.7	36.1	28.0
NHS SANDWELL AND WEST BIRMINGHAM CCG	97.0	46.7	44.7	42.9
NHS SCARBOROUGH AND RYEDALE CCG	100.0	50.7	44.8	45.1
NHS SHEFFIELD CCG	97.7	47.4	47.6	44.3
NHS SHROPSHIRE CCG	90.9	51.6	56.4	52.0
NHS SLOUGH CCG	100.0	38.2	47.6	46.4
NHS SOLIHULL CCG	96.9	41.4	45.7	43.2
NHS SOMERSET CCG	100.0	50.1	52.0	48.6
NHS SOUTH CHESHIRE CCG	100.0	52.0	56.4	51.2
NHS SOUTH DEVON AND TORBAY CCG	94.3	50.9	50.1	50.3
NHS SOUTH EAST STAFFS AND SEISDON PENINSULAR CCG	93.5	55.2	54.6	53.6
NHS SOUTH EASTERN HAMPSHIRE CCG	100.0	45.9	57.7	52.9
NHS SOUTH GLOUCESTERSHIRE CCG	96.2	52.4	51.4	49.7
NHS SOUTH KENT COAST CCG	76.7	47.6	47.1	46.0
NHS SOUTH LINCOLNSHIRE CCG	93.3	59.6	61.3	58.0
NHS SOUTH MANCHESTER CCG	95.8	43.9	44.6	48.0
NHS SOUTH NORFOLK CCG	96.0	54.0	56.7	55.4
NHS SOUTH READING CCG	100.0	55.8	59.6	52.0
NHS SOUTH SEFTON CCG	97.0	47.5	47.0	48.4
NHS SOUTH TEES CCG	93.6	50.7	49.9	46.5
NHS SOUTH TYNESIDE CCG	96.4	59.1	61.4	62.1
NHS SOUTH WARWICKSHIRE CCG	97.2	56.8	60.7	58.4
NHS SOUTH WEST LINCOLNSHIRE CCG	100.0	50.7	49.4	49.5
NHS SOUTH WORCESTERSHIRE CCG	100.0	57.1	61.4	57.0
NHS SOUTHAMPTON CCG	100.0	48.9	48.9	46.8

NHS SOUTHEND CCG	100.0	38.6	38.2	34.4
NHS SOUTHERN DERBYSHIRE CCG	100.0	53.3	51.8	47.8
NHS SOUTHPORT AND FORMBY CCG	100.0	47.5	49.6	46.4
NHS SOUTHWARK CCG	100.0	31.2	37.9	38.3
NHS ST HELENS CCG	100.0	49.6	54.1	47.1
NHS STAFFORD AND SURROUNDS CCG	100.0	38.3	38.7	37.0
NHS STOCKPORT CCG	83.0	49.4	54.1	51.7
NHS STOKE ON TRENT CCG	94.2	53.8	53.8	52.2
NHS SUNDERLAND CCG	100.0	51.8	50.8	53.4
NHS SURREY DOWNS CCG	100.0	35.3	41.2	38.2
NHS SURREY HEATH CCG	100.0	44.7	50.4	42.9
NHS SUTTON CCG	92.6	46.0	50.5	48.8
NHS SWALE CCG	100.0	49.1	54.4	51.3
NHS SWINDON CCG	96.2	48.2	44.4	37.2
NHS TAMESIDE AND GLOSSOP CCG	87.8	48.5	49.4	45.7
NHS TELFORD AND WREKIN CCG	71.4	45.6	49.1	45.8
NHS THANET CCG	95.0	47.4	51.1	44.5
NHS THURROCK CCG	100.0	40.4	38.3	38.3
NHS TOWER HAMLETS CCG	100.0	40.8	41.0	42.4
NHS TRAFFORD CCG	100.0	48.8	51.2	48.6
NHS VALE OF YORK CCG	96.7	52.1	57.2	52.1
NHS VALE ROYAL CCG	100.0	52.6	49.6	55.9
NHS WAKEFIELD CCG	100.0	53.1	47.5	50.7
NHS WALSALL CCG	98.4	42.6	49.8	50.1
NHS WALTHAM FOREST CCG	97.8	37.2	39.4	37.4
NHS WANDSWORTH CCG	100.0	36.9	43.3	42.8
NHS WARRINGTON CCG	100.0	50.0	52.3	44.8
NHS WARWICKSHIRE NORTH CCG	100.0	45.5	48.2	49.4
NHS WEST CHESHIRE CCG	91.2	53.3	60.5	54.3

NHS WEST ESSEX CCG	92.1	48.0	48.3	46.8
NHS WEST HAMPSHIRE CCG	98.0	49.3	54.4	52.9
NHS WEST KENT CCG	91.8	49.5	53.1	52.5
NHS WEST LANCASHIRE CCG	100.0	52.0	56.3	53.9
NHS WEST LEICESTERSHIRE CCG	98.0	59.9	58.8	57.0
NHS WEST LONDON (K&C & QPP) CCG	98.0	19.5	22.3	17.4
NHS WEST NORFOLK CCG	95.2	52.3	54.3	48.3
NHS WEST SUFFOLK CCG	96.0	46.1	48.6	48.9
NHS WIGAN BOROUGH CCG	87.7	48.4	44.8	45.7
NHS WILTSHIRE CCG	100.0	49.9	51.7	50.1
NHS WINDSOR, ASCOT AND MAIDENHEAD CCG	100.0	51.4	51.5	49.9
NHS WIRRAL CCG	92.9	51.5	56.9	53.6
NHS WOKINGHAM CCG	100.0	43.6	40.2	44.5
NHS WOLVERHAMPTON CCG	89.8	48.9	49.9	48.8
NHS WYRE FOREST CCG	100.0	46.6	46.8	49.1
ENGLAND	97.0	48.7	50.3	48.1

Notes:

These data are provisional cumulative estimates of shingles vaccine coverage for the 2014/15 programme as at 28 February 2015.

A detailed report of the September 2014 to February 2015 data is available here.

All figures are derived from data as extracted from records on GP systems. Aggregated GP practice level shingles vaccine coverage data was automatically uploaded via participating GP IT suppliers to the ImmForm website for immunisations given between 1st September 2014 and 28th February 2015.

The ImmForm website provides a secure platform for vaccine coverage collections and these data collections are monitored, validated and analysed by PHE.

ImmForm is the system used by PHE to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for the NHS. https://www.immform.dh.gov.uk/SignIn.aspx?ReturnUrl=%2f

Data Source:

ImmForm website: Registered Patient GP practice data

Shingles Immunisation Vaccine Uptake Monitoring Programme, Public Health England (PHE)

Volume 9 Number 14 Published on: 24 April 2015

Laboratory reports of *Haemophilus influenzae* by age group and serotype (England and Wales): January to March 2015

In the first quarter of 2015 (January to March) there was a total of 240 laboratory confirmed cases of invasive *Haemophilus influenza* (Hi). This represents a 12% increase in the number of cases compared to the first quarter of 2014 (n=214). There were 176 cases in the fourth quarter of 2014.

Of the samples which underwent serotyping (n=188), 87% were non-capsulated *Haemophilus influenza* (ncHi), a further 12% were serotype a, e, or f, and 1% were serotype b (Hib). This was comparable to the first quarter of 2014 when; 87% of serotyped samples were ncHi, 12% were serotype a, e, or f and 1% were Hib.

Age-group was well reported (see table). Of the laboratory confirmed cases during the first quarter of 2015: 82% were aged 15 years and over; 10% were under one year of age, 5% were 1-4 years old, and 2% were among 5-14 year olds. Similarly, in the first quarter of 2014: 80% were aged 15 years and over; 13% were under one year of age, and 5% were 1-4 year olds and 2% were among 5-14 year olds. There was a 17% decrease (from 23 in 2014 to 19 in 2015) in ncHi cases among children aged under one year old compared to the first quarter of 2014. Among those aged 15 years and over there was 13% increase in ncHi case from 117 in 2014 to 132 in 2015.

During the first quarter of 2015, 89% of cases in children under 15 years were ncHi (n=32/36). There was one case of Hib in this age-group during the same quarter; a fully vaccinated 3 year old who presented with meningitis and survived the infection. There were no cases of Hib during the first quarter of 2014. The most recent death in a child aged under 16 years attributed to invasive Hib disease was in 2011.

Age distribution of laboratory-confirmed cases of *Haemophilus influenzae* by serotype England and Wales, first quarter 2015 (and 2014)

Serotype	Age-group					Total, third quarter 2014 *(2013)*
	<1y	1-4y	5-14y	15+	nk	
b	*– (–)*	*1 (–)*	*– (–)*	*1 (1)*	*– (–)*	***2** (1)*
nc	*19 (23)*	*8 (8)*	*5 (3)*	132 *(117)*	*– (–)*	**164** *(151)*
a,e,f	*2 (3)*	*1 (1)*	*– (–)*	19 *(17)*	*– (–)*	**22** *(21)*
not typed	3 *(2)*	*3 (1)*	*1 (2)*	44*(36)*	*1 (–)*	**52** *(41)*
Total	***24 (28)***	**13** *(10)*	**6** *(5)*	**196** *(171)*	**1** *(–)*	**240** *(214)*

Notes: " –" Indicates that testing yielded no positives. Percentages may not add up to 100 due to rounding.

Infection report

Volume 9 Number 14 Published on: 24 April 2015

Laboratory reports of hepatitis A and C (England and Wales): October to December 2014

Laboratory reports of hepatitis A in England and Wales (October-December 2014)

There were a total of 87 laboratory reports of hepatitis A reported to Public Health England (PHE) during the fourth quarter of 2014 (October-December 2014). This was a 17.6% increase on the number of reports during the third quarter of 2014 (n=74) and a 29.9% increase on the same quarter in 2013 (n=67).

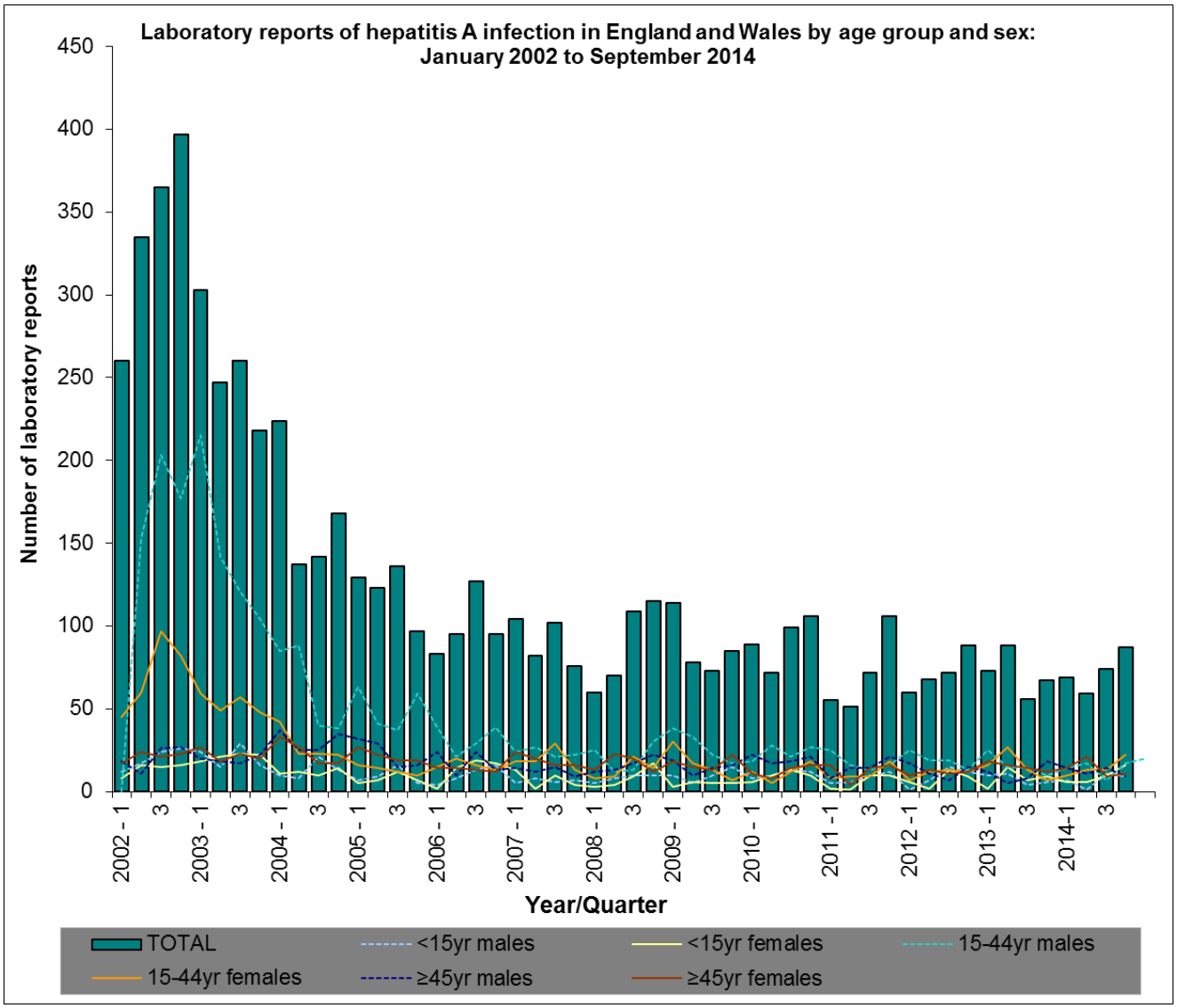
Age-group and sex were well reported (100% complete). Forty two (48.3%) reports were among the 15-44 year old age group, a further 25 (28.7%) reports were among the under 15 year age group, and 20 (23.0%) reports were from those aged over 44 years.

Females accounted for 60.7% of all reports. A similar proportion of males and females were reported among those aged 15-44 (52.4% females) and those over 44 years old (55.0 females). A higher proportion of females (64.0 females) were reported in the under 15 years age group.

Table 1. Laboratory reports of hepatitis A in England and Wales, October-December 2014

Age group	Male	Female	Unknown	Total
<1 year	0	0	0	**0**
1-4 years	4	6	0	**10**
5-9 years	3	4	0	**7**
10-14 years	2	6	0	**8**
15-24 years	6	6	0	**12**
25-34 years	10	13	0	**23**
35-44 years	4	3	0	**7**
45-54 years	4	2	0	**6**
55-64 years	2	3	0	**5**
>65 years	3	6	0	**9**
Unknown	0	0	0	**0**
Total	**38**	**49**	**0**	**87**

Figure 1. Laboratory reports of hepatitis A by age and sex (England and Wales): 2002-2014

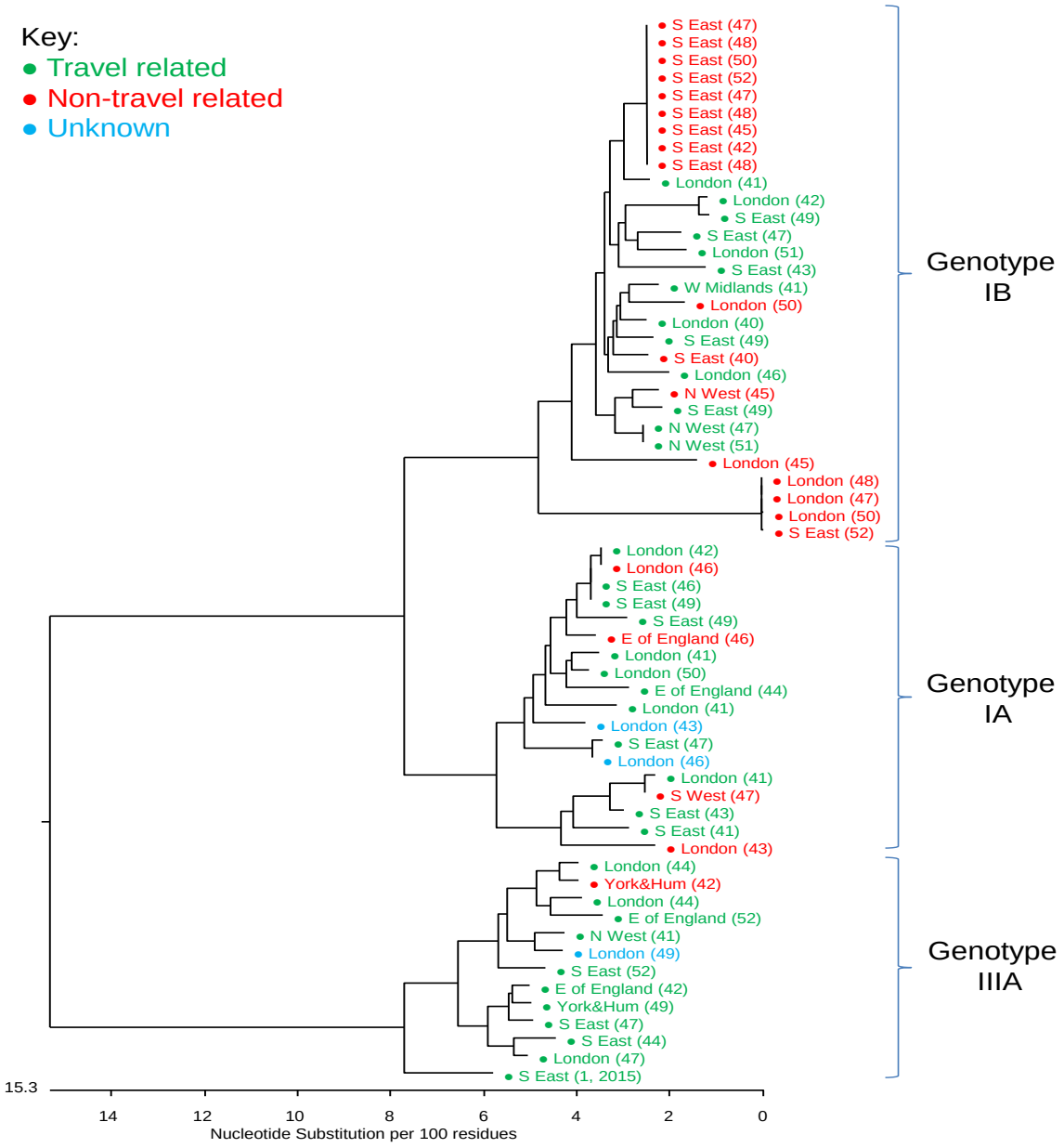


Reference laboratory confirmation and phylogeny of hepatitis A infection

Of the 88 patients notified as having acute HAV infection during the last quarter of 2014, 47 had samples forwarded to the Virus Reference Department for confirmation. Fifteen of the patients were not confirmed to have acute HAV infection. The remaining 32 patients were confirmed to have acute HAV infection. In addition 30 patients were confirmed to have acute HAV infection that had not been reported through the laboratory reporting system although they were recorded in HPzone.

A total of 62 patients could be genotyped over this period; 18 were genotype IA (29%), 30 were genotype IB (48.4%) and 14 were genotype IIIA (22.6%). Of these samples 37 were associated with travel (59.7%), 22 had no travel history (35.5%) and 3 had no information (4.8%). This information is presented as a phylogenetic tree. Each sequence is represented by a dot with the patient region and the week of sampling in brackets.

Figure 2. Phylogentic tree of genotype IA, IB, and IIIA sequences October to December 2014 (n=62)



Laboratory reports of hepatitis C in England and Wales (October-December 2014)

There were a total of 2,922 laboratory reports of hepatitis C reported to the PHE between October and December 2014. There was a 12.7% increase in the number of reported cases compared to the third quarter of 2014 (n=2,593), and a 6.0% increase on the same quarter in 2013 (n=2,757).

Age-group and sex were well reported (>98% complete). Where known, males accounted for 67.3% of reports (1,952/2899), which is consistent with previous quarters. Adults aged 25-44 years accounted for 51.7% of the total number of hepatitis C reports.

Table 1. Laboratory reports of hepatitis C in England and Wales, October-December 2014

Age group	Male	Female	Unknown	Total
<1 year	2	2	0	**4**
1-4 years	1	0	0	**1**
5-9 years	0	2	0	**2**
10-14 years	5	1	0	**6**
15-24 years	66	48	2	**116**
25-34 years	436	244	8	**688**
35-44 years	564	246	6	**816**
45-54 years	510	203	2	**715**
55-64 years	259	108	0	**367**
>65 years	105	90	0	**195**
Unknown	4	3	5	**12**
Total	**1952**	**947**	**23**	**2922**

Registration Form

18th Conference in genomics and proteomics of human pathogens

25-26 June 2015
Public Health England, Colindale, London

Title:	First name:
Last name:	
Address:	
Telephone:	
E-mail:	

☐ I am interested in presenting a poster.

Poster presentations are encouraged and will be displayed during the course of the meeting. The Christine McCartney Prize will be awarded for the poster judged to be of the highest scientific merit and relevance. Please indicate in the box above if you wish to present a poster during the meeting. The dimensions are standard (approximately 1 sq. metre, A0 size).

Please enclose a cheque for £100 for the conference registration made payable to the Public Health England. The fee covers registration, refreshments, lunch and evening reception.

CPD accreditation applied for. If you require a certificate of attendance, please tick the box ☐

Signed:	Date:

For further information, please contact the organisers:

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Plenary lecture, 26 June 2015

Development of point of care biosensors using bioimpedance and nanotechnology

by Professor Richard Bayford

Professor Richard Bayford (FInstP, FInstIPEM, FSB, MIEEE) is the Director of Biophysics at the Middlesex University Centre for Investigative Oncology and the head of the modelling and informatics research group. His expertise is in biomedical imaging, deep brain stimulation, biomodelling, electrical impedance tomography (EIT), nanotechnology, telemedical systems, instrumentation, biosensors and very large scale integration (VLSI).
He has had a long collaboration with multidisciplinary research groups on biomedical applications of EIT and bioimpedance. He has published over 250 scientific papers and has several patents. He was the Editor-in-Chief of the Institute of Physics (IoP). Physiological Measurement Journal, a member of the editorial board of the International Journal of Biomedical Imaging.

Cover acknowledgement: Designed by Tim Chambers

Public Health England

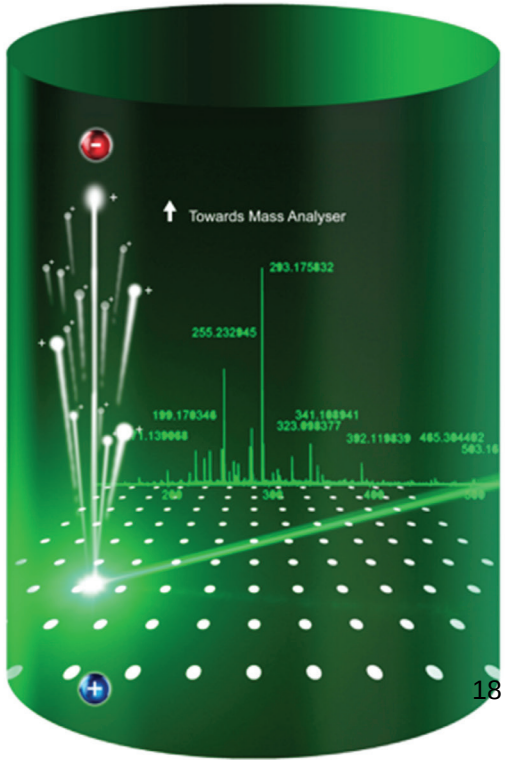
Protecting and improving the nation's health

18th Conference in genomics and proteomics of human pathogens

Venue: Public Health England, Colindale, London

Applications of high throughput genomics and proteomics in infection

25–26 June 2015



Applications of high throughput genomics and proteomics in infection

This, our 18th annual conference, is part of a pioneering series of meetings dedicated to the translation of technologies into clinical microbiology. These conferences have been a springboard to highlight implementation of technologies and horizon gazing into the next big feature in biotechnology. At its inception in 1998, the first bench-top MALDI-TOF Mass Spectrometer ushered in the first meeting and together with academic and industrial partners, we showcased how MALDI-TOF MS operates, can be used to differentiate between pathogens and what needs to be done to bring it to frontline diagnostic laboratories on a national basis. Each year, we expanded the boundaries, and not only updated on proteomic innovations but explored genomic advances and how bench-top instruments were moving from the research laboratory to near patient diagnostics. Biotechnology companies have generously shared with the participants developments they made, brought the systems on site and, in many cases, run workshops for training and trouble shooting. For us, it has been a fertile ground for collaboration, mapping out what is on the horizon and giving young researchers and PhD students a platform to speak and present their work along with eminent leaders in the field including the late Emeritus Professor Franz Hillenkamp, who coined the name, 'matrix-assisted laser desorption/ionization time-of-flight mass spectrometry' (MALDI-TOF MS) for his discovery in the 1980s.

The theme for each year explored the impact of technology, ranging from microbial ecology to the unlocking of genomic and proteomic signatures of human pathogens. This year ushers in the transformation of Public Health England's infection function and the strategic planning to implement whole genome sequencing near patients while ensuring that public health surveillance is effective and overarching. This year's team will focus on evidence of output of proteomic and genomic technologies, how implementation of high throughput capabilities is and will transform infection services over the next few years. The meeting comprises three sessions over two days including the plenary lecture 'Development of point of care biosensors using bioimpedance and nanotechnology' by Professor Richard Bayford. Professor Derrick Crook, Director of PHE Microbiology Services, will also address the meeting on PHE's new National Infection Service.

VENUE: Public Health England, Colindale, London
Applications of high throughput genomics and proteomics in infection. 25-26 June 2015

PROGRAMME 25 JUNE 2015

09.00 - 09.45 Registration

Session 1 Genomics and infections

Chairs: Saheer Gharbia and Grace Smith

09.30 - 09.40 Opening Remarks:
Dr Christine McCartney, Public Health England

09.40 - 10.00 Whole genome sequencing and disease: recent experience with Ebola
David Wooldridge
Genomics Research Unit, Colindale, Public Health England

10.00 - 10.30 Melioidosis; evolution of a disease from biodefence to international public health threat
Simon Funnell, Porton, Public Health England

10.30 - 11.00 Mycobacterium whole genome sequencing in a clinical infection service
Grace Smith, Birmingham, Public Health England

11.00 - 11.30 COFFEE

11.30 - 12.00 Genomics and phenomics for the characterisation of bacterial pathogens
Muna Anjum, Animal and Plant Health Agency, Surrey

12.00 - 12.30 The gut microbiome through culture and whole genome sequencing
[1]Saheer Gharbia and [2]Mike Hudson, [1]Colindale and [2]Porton, Public Health England

12.30 - 13.00 Whole-genome sequencing for microbial reference services
Neil Ward, Marketing Manager, UK and Ireland, Illumina

13.00 - 14.00 LUNCH

Session 2 The proteome in microbial ecophysiology

Chairs: Haroun N Shah and Raju Misra

14.00 - 14.30 Extrapolating earlier physiological data in the context of current proteome analysis
Haroun N Shah, Proteomics Research Unit, Colindale, Public Health England

14.30 - 15.00 Identification of immune-reactive proteins recognised during *Coxiella burnetii* infection
Kevin Bewley, Porton, Public Health England

15.00 - 15.30 Absolute quantitation of key antigens in complex vaccine using isotope dilution MS/MS
Jun Wheeler, NIBSC, MHRA, Potters Bar

15.30 - 16.00 TEA

16.00 - 16.30 Proteomics of human infectious disease pathogens
Min Fang, Proteomics Research Unit, Colindale, Public Health England

16.30 - 17.00 Applications of Orbitrap mass spectrometry technology to microbiology
Jenny Ho, Thermo Fisher Scientific, Hemel Hampstead

17.00 GENERAL DISCUSSION

17.30 - 19.00 **RECEPTION, EXHIBITION AND POSTER SESSION**

PROGRAMME 26 JUNE 2015

09.15 - 10.00 **Plenary lecture**

Development of point of care biosensors using bioimpedance and nanotechnology

Professor Richard Bayford Chair in Biomodelling and Informatics Director of Biophysics, Middlesex Cancer Research Centre for Investigative Oncology, Middlesex University, London and Hon. Senior Lecturer, Department of Electrical and Electronic Engineering, University College London

10.00 - 10.30 COFFEE

10.30 - 11.00 **PHE address**

Design of National Infection Service in an era of rapid advances in technologies
Professor Derrick Crook, Director of PHE National Infection Service and Professor of Microbiology, Nuffield Department of Medicine, Oxford University

Session 3 MALDI-TOF M S the potential to network on a larger scale

Chairs: Erika Tranfield and Andrew Fox

11.00 - 11.20 Groundwork for MALDI-TOF MS identification of environmental microorganisms within PHE
Jimmy Walker, Samuel Collins; Ginny Moore; Allan Bennett, Porton, Public Health England

11.20 - 11.40 Direct Identification of Bacteria in Positive Blood Cultures by MALDI-TOF: What method? What clinical impact?
Hannah Tanner, Birmingham, Public Health England

11.40 - 12.00 Experience with using MALDI in Reference Laboratory Service
Jane Turton, Antibiotic Resistance Monitoring and Hospital Acquired Infections, Colindale, Public Health England

12.00 - 12.20 Challenges of Introducing MALDI-TOF MS in clinical services
Mark Regan, Manchester, Public Health England

12.20 - 12.40 Areas of contention; MALDI-TOF MS of bacillus and mycobacterium spp.
Tim Chambers, Renata Culak, Saheer Gharbia, Tim Walker and Haroun Shah Genomics Research Unit and Proteomics Research Unit, Colindale, Public Health England

12.40 - 13.10 MALDI-TOF MS for the identification of anaerobic bacteria; feasibility of multicentre studies
ACM Veloo, University Groningen, The Netherlands

13.10 **GENERAL DISCUSSION, CLOSING REMARKS AND AWARD OF THE POSTER PRIZE**
Dr Christine McCartney