

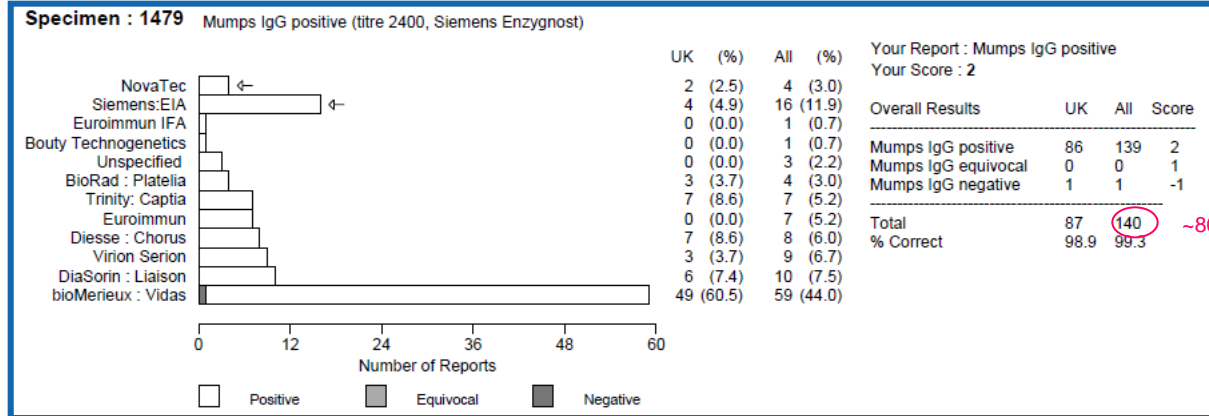
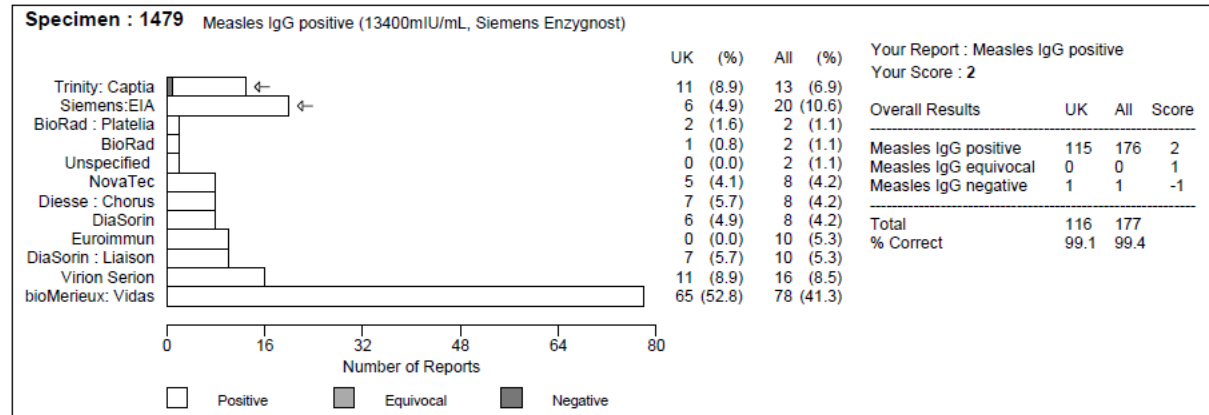
# Update on Virology, Molecular & Serology schemes

Brigitte Senechal

## Schemes (introduction year) → YEAR / changes to schemes

- Virus identification (1972)
- Syphilis serology (1978)
- Hepatitis B serology (1978)
- Rubella IgG serology (1979)
- HIV serology (1986)
- Hepatitis C serology (1994)
- Anti-HBs detection (1996)
- Immunity screen (1996)
- HIV-1 RNA quantification (2000)
- Hepatitis C RNA detection (2001)
- Diagnostic serology / exanthema screen (2001)
- Diagnostic serology / hepatitis screen (2001)
- HBV DNA quantification (2003)
- Molecular detection of viruses in CSF (2003)
- Blood Borne Viruses (2004)
- C. trachomatis* DNA (2005)
- CMV DNA quantification (2007)
- Measles IgG serology (2009)
- Molecular detection of HPV (2009)
- EBV DNA quantification (2011)
- HIV Point of Care testing (2011)

# Measles & Mumps IgG scheme- April 2013



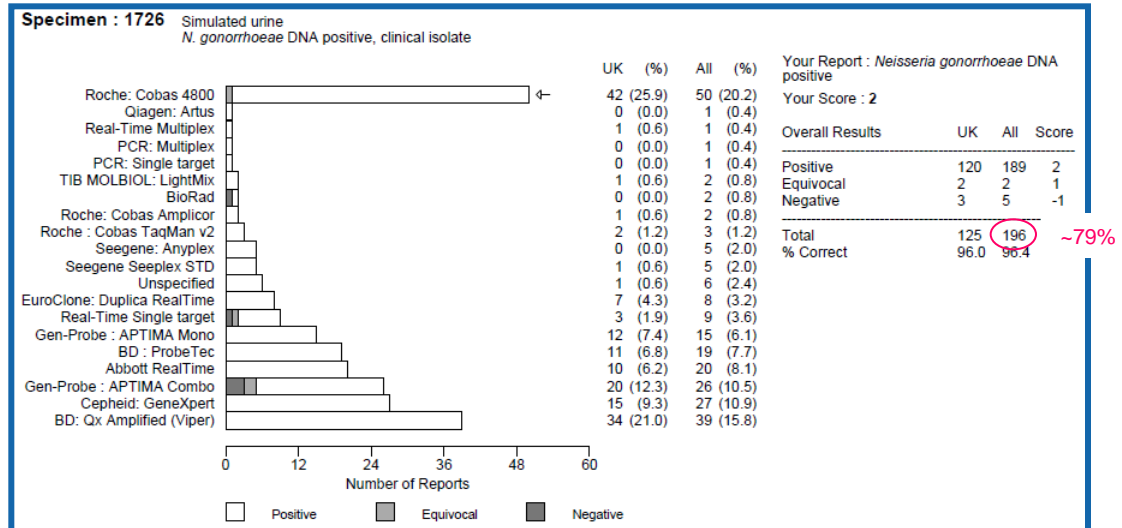
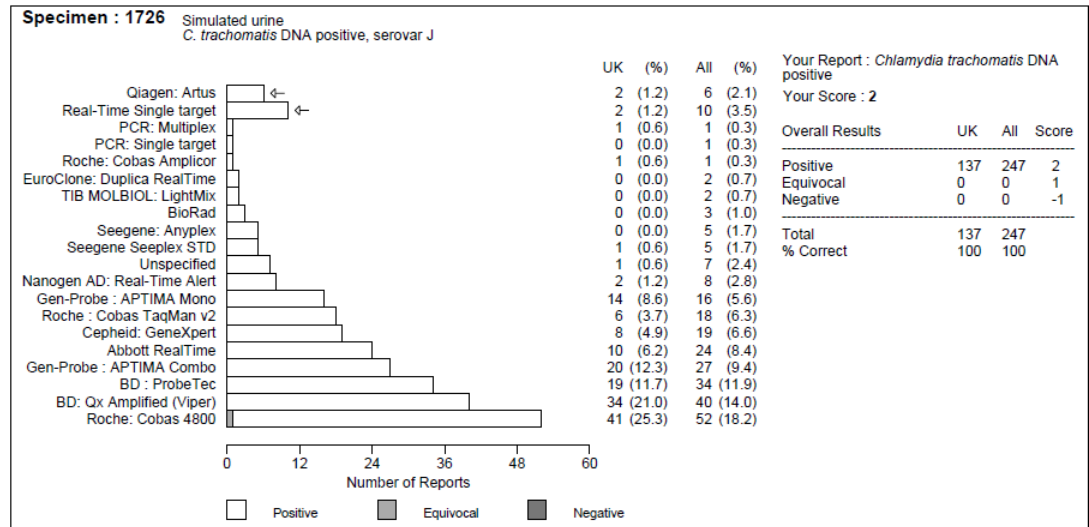
4 serum specimens (neat)  
2 distributions per year

# C trachomatis & N gonorrhoeae scheme-April 2013

4 specimens  
3 distributions per year

2 specimen formats:

- simulated vaginal swab (0.5mL FD)
- simulated urine (5mL liquid)

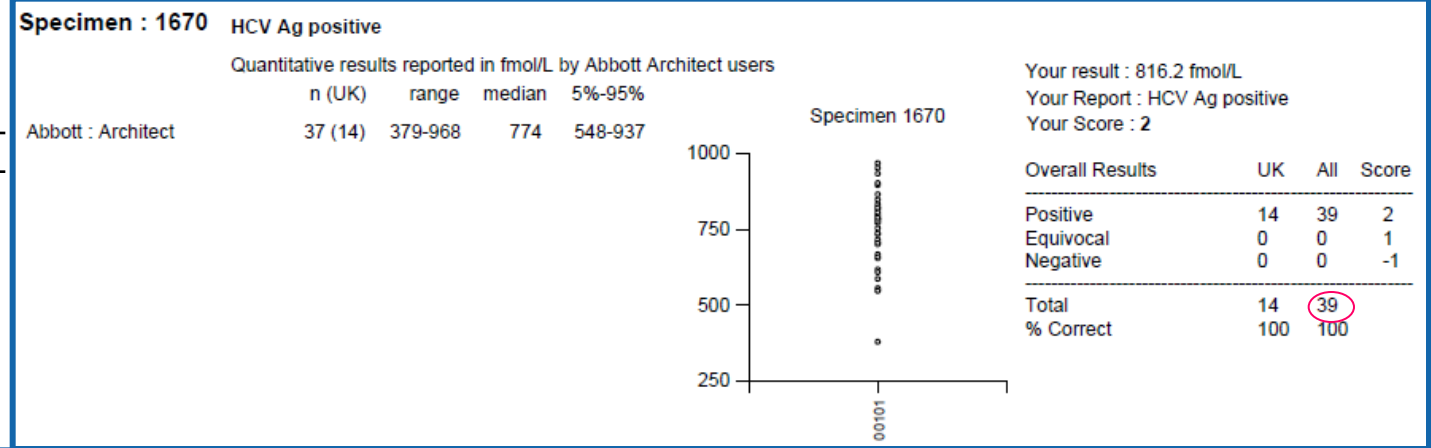
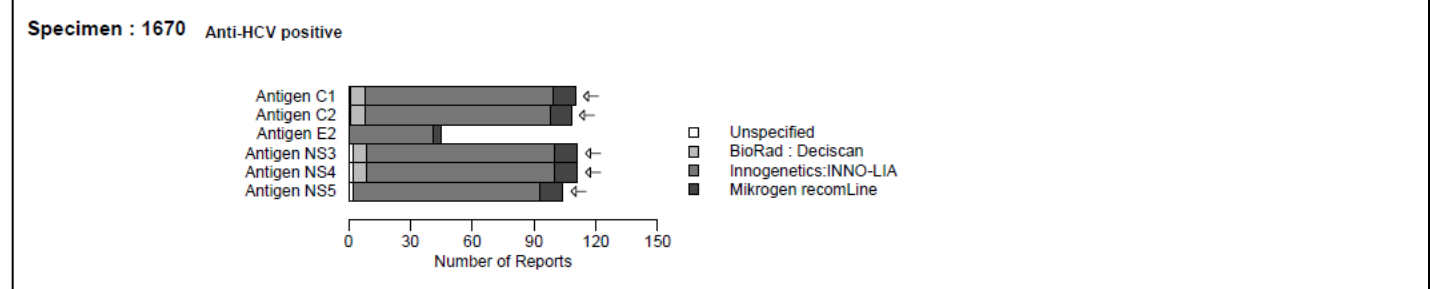
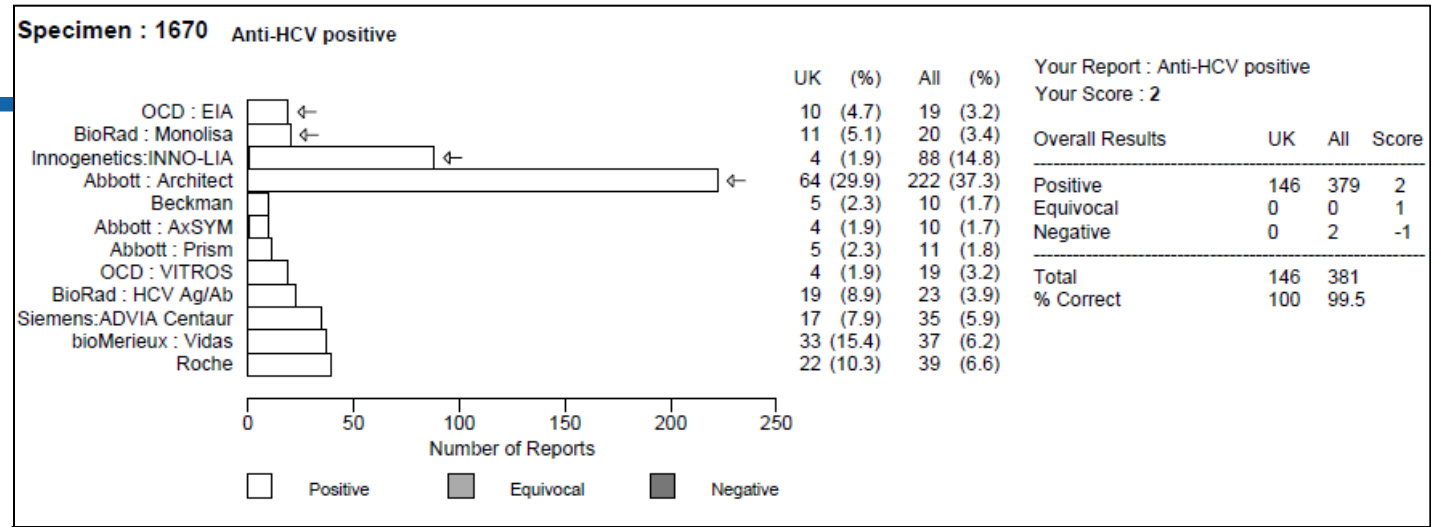


# HCV serology scheme

## HCV Ag

April 2013

6 serum specimens  
3 distributions per year



	Ag	Ab	%
<b>All</b>	<b>37</b>	<b>294</b>	<b>13%</b>
Finland	1	1	100%
Republic of Ireland	7	14	50%
Sweden	9	19	47%
Switzerland	2	13	15%
United Kingdom	13	150	9%
Italy	4	49	8%
Portugal	1	48	2%

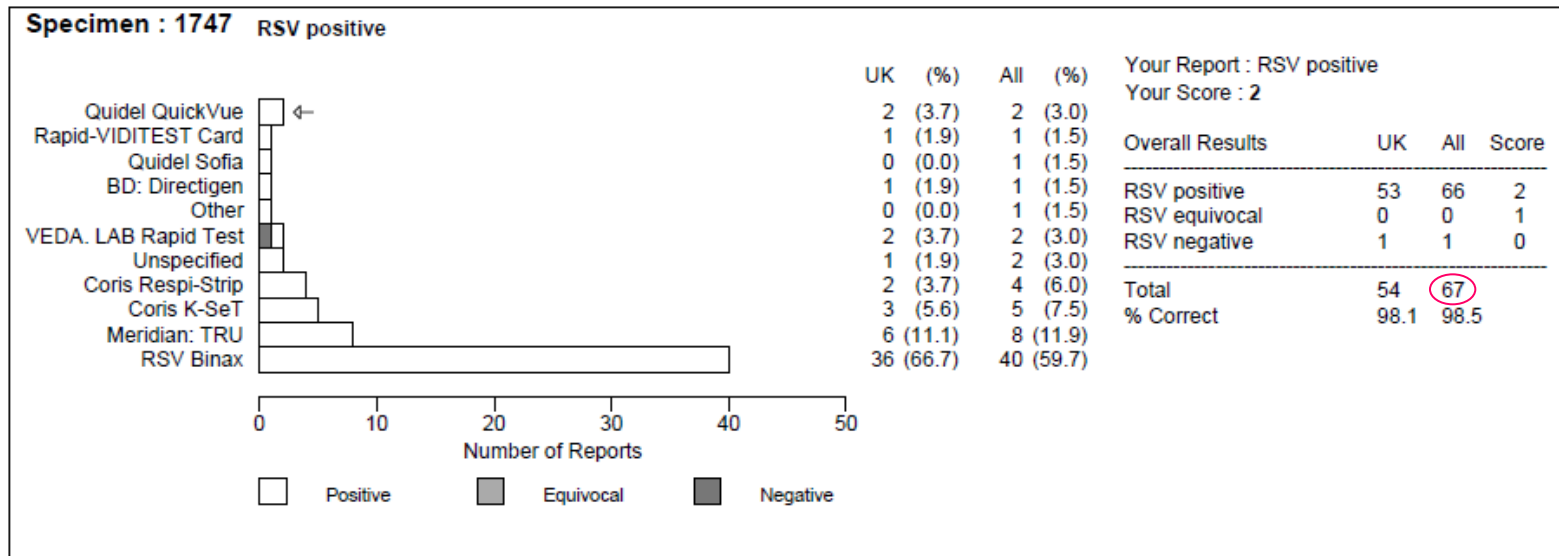
# Rapid respiratory RSV scheme – April 2013

2 specimens:

- simulated nasopharyngeal specimens
- Point of Care Test for the detection of RSV Ag

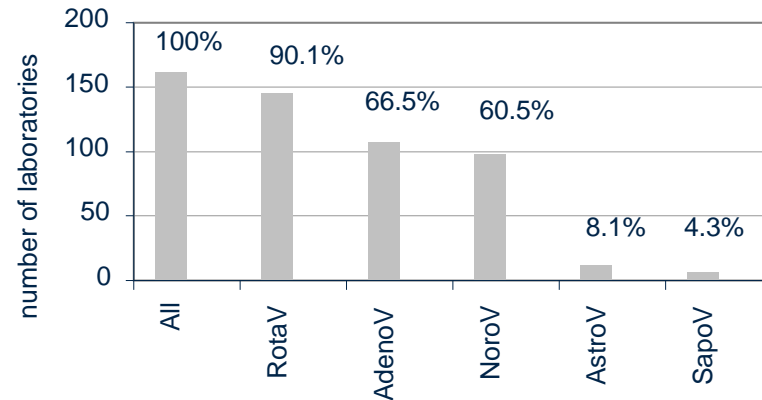
2 distributions per year: November to March

	<b>All</b>	<b>72</b>	
<b>United Kingdom</b>	<b>59</b>		~82%
Belgium	4		
Switzerland	2		
Italy	2		
South Africa	2		
Austria	1		
Germany	1		
Netherlands	1		



# Gastrointestinal viruses scheme – In development

2011, Questionnaire: 243 replies

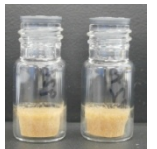


2011, Pre-pilot: 6 specimens of 300uL liquid stools

2012, new materials from the Medical microbiology department, Ninewells hospital, Dundee  
Geraldine Kaminski and Dr Paul McIntyre, thank you!

BSc student Tilani Wijamunige: stability, homogeneity, specimen format...

2013, pilot: 6 specimens of 1mL freeze-dried stools



41 participants returning 36 sets of results

- 47% molecular assay
- 33% rapid immunoassay
- 20% enzyme immunoassay

# Gastrointestinal viruses scheme – In development

Specimen	1930	1931	1929	1928	1926	1927
Intended	Positive	Positive	Positive	Positive	Negative	Negative
Content	Pool C	1:10 of 1930	Pool B	Pool A	matrix only	negative stool
Type	GII-4	GII-4	GII-4	GII-4	-	-
strain	Sydney2012-Like	Sydney2012-Like	Apeldoorn2007-Like	New Orleans-Like	-	-
In house PCR, Ct Value (40)	15.0	16.8	<b>27.8</b>	<b>31.5</b>	>40	>40
Oxoid IDEIA, index (1)	17	4.6	<b>0.25</b>	<b>0.17</b>	0.17	0.34
<b>PCR</b> In house" PCR, n=10	10	10	9*	6*	10	10
R-biopharm Ridagene, n=3	3	3	3	2*	3	3
Cepheid Smart Norovirus, n=4	4	4	4	4	4	4
<b>EIA</b> Oxoid IDEA, n=5	5	5	1*	0*	5	4*
R-biopharm Ridascreen, n=2	2	2	1*	0*	2	2
<b>Rapid</b> Microgen Noroscreen, n=1	1	1	0*	0*	1	1
SD BIOLINE Norovirus, n=2	2	2	1*	1*	2	2
Mer. ImmunoCard STAT!, n=1	1	1	0*	0*	1	1
R-biopharm Ridaquick, n=7	6*	6*	1*	0*	7	7
Norovirus NOROTOP, n=1	0*	1	0*	0*	1	1
All, n=36	34	35	20	13	36	35
<b>Performance</b>	<b>94%</b>	<b>97%</b>	<b>56%</b>	<b>36%</b>	<b>100%</b>	<b>97%</b>

➤ *2014: New pilot with same specimen format to include Rotavirus and Adenovirus*

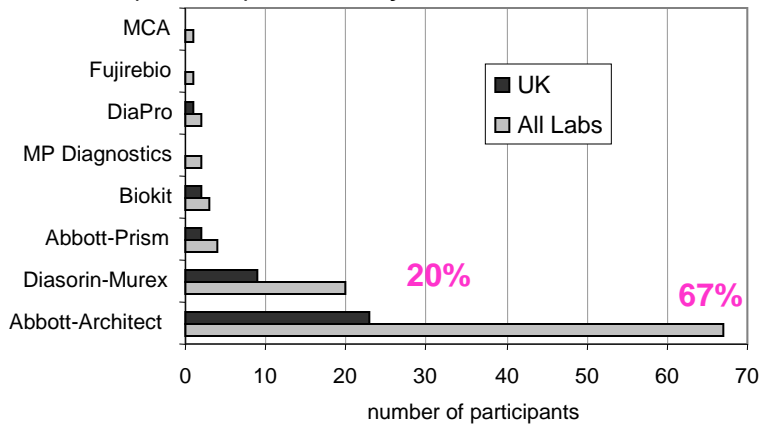
THANK YOU Dr David J Allen (Enteric Virus Unit, Microbiology services, PHE Colindale),



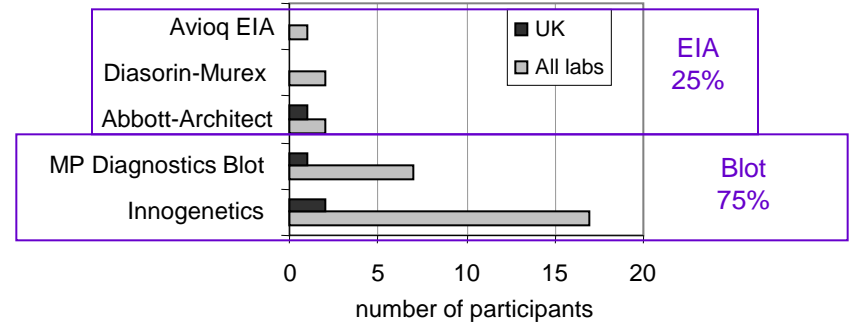
# HTLV-I/II Ab marker – in development

2013 Questionnaire: 771 participants, 327 replies

102 (37 UK) routinely test for HTLV-I/II Ab



28% use a confirmatory assays (33% send away for confirmation)



the majority of laboratories test less than 100 samples per month, mainly from B&T donors

Category	Tests per month
<b>58%</b> <25	21 23%
25-100	33 35%
100-1000	31 33%
>1000	8 9%
<b>Total</b>	<b>93 100%</b>

	Blood and tissue donors	Transplant recipients	Adult T-cell leukaemia/lymphoma	Myelopathy
mostly	63%	24%	9%	4%
frequently	23%	23%	19%	23%
rarely	7%	36%	60%	52%
never	7%	16%	13%	20%

most of the laboratories test for HTLV-I/II Ab as part of a screening panel which includes HIV-Ab, HCV Ab, HBsAg and T pallidum Ab.

2014: pre-pilot distribution

# Thank you!

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## PARTICIPANTS:

for returning questionnaires and testing pilot specimens

## UK NEQAS:

Production team

Office team

Quality team

for all the 'extra' work

## UK NEQAS:

Virology&Molecular team

for making the changes and for their support



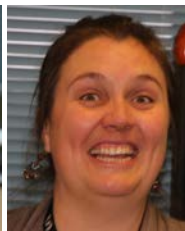
CHARITY



EVIE



SERGIO



ANNELINE



HABIB



VIVIENNE



ELLI



PRIYA



TILANI



MIHAELA