

# Care Home testing report – position at October 2020

## Executive Summary

The following report is updated monthly and summarises care home testing data from Pillar 1 (local laboratories) and Pillar 2 (National initiative) from August to October 2020.

Pillar 1 capacity is reserved for testing staff and residents in an outbreak scenario. Pillar 2 testing (National initiative) is used by care homes where there has never been an outbreak of COVID-19 or where an outbreak has been declared over by the PHA and the care home has returned to regular testing.

Of note, care homes will potentially test under both Pillars during a single month depending on outbreak status. Increased testing through Pillar 1 during October and a reduction in Pillar 2 testing as compared with August and September reflects an increased number of outbreaks in care homes during the second wave of COVID-19.

**Table 1: COVID – 19 Tests carried out in Pillar 1 and Pillar 2 within Care Homes. August – October 2020**

	Month	Test result			Total	% positive
		Negative	Positive	Unknown		
<b>Pillar 1</b>	Aug 2020	2,980	17	13	<b>3,010</b>	0.56%
	Sept 2020	6,900	81	22	<b>7,003</b>	1.15%
	Oct 2020	13,622	821	70	<b>14,513</b>	5.66%
<b>Pillar 2</b>	Aug 2020	31,971	101	437	<b>32,509</b>	0.31%
	Sept 2020	46,628	258	694	<b>47,580</b>	0.54%
	Oct 2020	44,016	715	289	<b>45,020</b>	1.59%
<b>TOTAL</b>	Aug 2020	34,951	118	450	<b>35,519</b>	0.33%
	Sept 2020	53,528	339	716	<b>54,583</b>	0.62%
	Oct 2020	57,638	1,536	359	<b>59,533</b>	2.58%

Source: COVID Labs universe, Regional Data Warehouse

**Table 2: Positive COVID – 19 Tests carried out in Pillar 1 and Pillar 2 within Care Homes by staff and residents, August – October 2020**

	Month	Care home role			Total
		Resident	Staff	Unknown	
<b>Pillar 1</b>	Aug 2020	9	8	0	<b>17</b>
	Sept 2020	46	34	1	<b>81</b>
	Oct 2020	432	310	79	<b>821</b>
<b>Pillar 2</b>	Aug 2020	48	41	12	<b>101</b>
	Sept 2020	87	136	35	<b>258</b>
	Oct 2020	164	321	230	<b>715</b>
<b>TOTAL</b>	Aug 2020	57	49	12	<b>118</b>
	Sept 2020	133	170	36	<b>339</b>
	Oct 2020	596	631	309	<b>1,536</b>

Source: COVID Labs universe, Regional Data Warehouse

## 1 Testing Policy in Care Homes

- The PHA/HSCB Care Home cell, which was in existence prior to COVID-19, plays a significant role in the management of care home outbreaks. The PHA Health Protection team has long-established, robust systems in place to monitor infectious diseases and provide direct advice and support to manage and contain outbreaks. These arrangements were already in place and working when the COVID-19 pandemic was declared.
- In the initial stage of the COVID-19 pandemic, as per routine practice, all notifications of respiratory illness from care homes to the Health Protection Duty Room (HPDR) were thoroughly investigated and a comprehensive risk assessment undertaken of the incident.
- Testing for COVID-19 in care homes was initially facilitated by the Regional virology laboratory (RVL) in Belfast Trust. The case definition criteria for testing was agreed at 4 Nations level and was endorsed by Department of Health for local implementation.
- As the testing model transitioned towards a dedicated model of testing locally, HSC Trusts supported the pathway for COVID-19 testing in care homes across the region through local HSC laboratories in Antrim, Craigavon and Derry/Londonderry.
- As new clinical evidence emerged in relation to atypical presentations in vulnerable and older populations, the case definition was expanded. This served to alert clinicians and care homes to the need for a higher index of suspicion regarding possible atypical COVID-19 presentations particularly in care home facilities.
- Following expansion of the case definition for the care home population, PHA COVID-19 guidance was amended to advise that all residents in care homes with atypical symptoms should be managed as probable COVID-19 positive cases. In such circumstances, care homes were asked to ensure implementation of all appropriate IPC procedures, including isolation and cohorting where appropriate whilst test results were awaited.
- The PHA conducted a study in April 2020 in care homes to confirm the potential for transmission from symptomatic, pre-symptomatic, and asymptomatic individuals. Findings highlighted that testing only symptomatic residents and staff may not identify all individuals with SARS-COV2. This work informed the Northern Ireland policy for testing all residents and staff for COVID-19 in care homes with new outbreaks regardless of symptoms.
- On 24th April whole home testing was introduced for care homes with a new outbreak. At this stage, guidance did not apply retrospectively to homes with an outbreak notified prior to 24th April.
- In early May whole care home testing policy was applied retrospectively to all open outbreaks notified prior to 24th April and not closed on or before 7th May (92 homes). An additional 23 care homes had outbreaks notified prior to 24th April but were closed on or before 7th May.
- In late May a decision was taken to test all staff and residents in care homes, including those that never had an outbreak plus the 23 that had an outbreak notified prior to 24th April but were closed on or before 7th May. On 13th June the Minister advised that all staff and residents in Care homes should be tested before end of June 2020.
- As a precautionary approach the Department of Health, on the advice from the Expert Advisory Group (EAG) on testing, revised the testing policy in care homes to introduce a programme of regular testing in all COVID-19 free care homes.
- On 28th July a letter was issued to announce the implementation of a planned programme of regular COVID-19 testing for all residents and staff in care homes,

with staff being tested every 14 days and residents every 28 days. This programme came into effect on Monday 3rd August. Updated operational guidance was issued to the service on 20<sup>th</sup> August.

- On 03 November 2020 the Health Minister announced that Regular testing of staff was to increase from once every two weeks to once a week.

### **PILLAR 1 - Testing in outbreak scenario**

- Once an outbreak is declared by the PHA Health Protection Duty Room (HPDR), whole care home testing is triggered. Follow up testing at day 4-7 and day 28 is also required.
- Pillar 1 is used to determine the extent of an outbreak (potentially triggered by routine testing in pillar 2).
- Testing is co-ordinated by HSC Trusts.
- Care homes provide a list of all staff (working and off duty) and residents in home eligible for testing.
- HSC Trusts are responsible for providing labels and test kits and supporting administration.
- HSC Trusts also support administering the tests (nose and throat swab) as required.
- All tests are processed through the local HSC laboratories in NI. Turnaround for test results is normally expected within 24 hours.
- Trusts provide results to care homes for all residents.

### **PILLAR 2 - Regular Care Home testing through National initiative**

- A complete round of testing all staff and residents in care homes was undertaken in June 2020 and the programme of regular care home testing (Pillar 2) then came into effect on Monday 3rd August in Northern Ireland.
- The main rationale for regular testing is to proactively identify positive COVID-19 cases, many which may be asymptomatic, and facilitate early intervention to enhance infection prevention control measures and prevent spread.
- If an outbreak is identified during routine testing, care home testing will move to pillar 1 until the outbreak is declared over (*note: operational policy currently being updated in light of increase to weekly staff testing*).
- Care homes arrange testing for staff every 7 days and residents every 28 days.
- A national booking platform is used by care homes to order testing kits.
- Administration of the tests (nose and throat swab) is done by care home staff.
- Tests are distributed and returned to the national initiative laboratories via courier arranged by care homes. The majority of tests from Northern Ireland are processed by Randox but other labs across the United Kingdom are also used for a small number of cases.
- Turnaround time (TaT) for results is expected within 72 hours. Some variation is experienced as the process is influenced by national demand for testing.

## 2 Care home capacity in NI

**Table 3: Care Homes (operational) and registered places by Trust, NI ~ October 2020**

Trust	No. of nursing homes	No. of residential homes	Total no. of homes	Registered places - nursing	Registered places - residential	Registered places - ALL HOMES
				% of NI nursing total	% of NI residential total	% of NI total
BHSCT	45	42	87	2,033	1,171	3,204
				19.0%	22.6%	20.1%
NHSCT	67	65	132	2,745	1,455	4,200
				25.6%	28.0%	26.4%
SEHSCT	54	57	111	2,433	1,322	3,755
				22.7%	25.5%	23.6%
SHSCT	46	28	74	2,010	571	2,581
				18.8%	11.0%	16.2%
WHSCT	32	36	68	1,493	670	2,163
				13.9%	12.9%	13.6%
<b>NI</b>	<b>244</b>	<b>228</b>	<b>472</b>	<b>10,714</b>	<b>5,189</b>	<b>15,903</b>

Source: RQIA

- Care homes not currently operational are excluded from Table 1.

**Table 4: Average Occupied Care Home beds by Trust, NI ~ October 2020**

Trust	No. of nursing homes	No. of residential homes	Total no. of homes	Average occupied beds - nursing	Average occupied beds - residential	Average occupied beds - ALL HOMES
				avail beds occupied %	avail beds occupied %	avail beds occupied %
BHSCT	45	42	87	36.2	21.9	29.3
				79.4%	75.5%	77.5%
NHSCT	67	65	132	33.8	17.7	25.8
				84.0%	81.1%	82.6%
SEHSCT	54	57	111	36.1	18.5	27.0
				80.9%	79.9%	80.4%
SHSCT	46	28	74	38.1	15.7	29.6
				87.2%	80.0%	84.5%
WHSCT	32	36	68	39.1	14.2	26.1
				84.8%	77.7%	81.1%
<b>NI</b>	<b>244</b>	<b>228</b>	<b>472</b>	<b>36.2</b>	<b>17.8</b>	<b>27.4</b>
				<b>83.2%</b>	<b>79.1%</b>	<b>81.2%</b>

Source: RQIA via Regional Data Warehouse

- Care homes not currently operational are excluded from Table 2.
- Data for Table 4 is sourced from the Regional RQIA Web Portal. This portal should be completed by all care homes on a daily basis, however it is likely that on any day not all homes will complete the data requested in the portal, therefore information above may be based on partial data.
- 81.2% equates to an average of 12,913 beds occupied in care homes across Northern Ireland during October.

### 3 Testing results

Currently there are 472 care homes registered with RQIA. This excludes 10 care homes registered that are currently non-operational.

**Table 5: Tests for COVID-19 attributable to care homes completed in Pillar 1 and Pillar 2 ~ August – October 2020**

	Pillar 1			Pillar 2		
	Aug-20	Sept-20	Oct-20	Aug-20	Sept-20	Oct-20
Number of tests in care homes	3,010	7,003	14,513	32,509	47,580	45,020
Number (% of total) care homes that tests were matched to	279 (59%)	255 (54%)	313 (66%)	408 (86%)	430 (91%)	423 (90%)
Total test results that could not be matched to a care home (included in row 1 above)	888	1,736	1,750	*	*	*

Source: COVID Labs universe, Regional Data Warehouse

Note:

- Not possible at present using Data Warehouse information to provide a further breakdown of which homes have tested in both Pillars.
- Pillar 1 data may include a small number of tests attributable to domiciliary care or supported living facilities
- \*Under the National initiative (Pillar 2) – a unique organisational identifier (ID) is required to link a test result to the care home category. Where an organisational ID is not present, it is not possible to ascertain how many gaps are solely related to Care Homes.

**Table 6: Tests for COVID-19 attributable to care homes by staff and residents completed in Pillar 1 and Pillar 2 ~ August – October 2020**

	Pillar 1			Pillar 2		
	Aug-20	Sept-20	Oct-20	Aug-20	Sept-20	Oct-20
Number of tests in care homes	3,010	7,003	14,513	32,509	47,580	45,020
Tests attributed to Residents	1,898	3,452	6,446	9,979	12,337	11,413
Tests attributed to Staff	958	3,178	6,524	21,656	33,838	31,918
Care home role unknown <sup>1</sup>	154	373	1,543	874	1,405	1,689

Source: COVID Labs universe, Regional Data Warehouse

<sup>1</sup> For some tests, although it is possible to identify that the test is attributable to a care home, it is not known if the person tested was a resident or staff member

In the absence of a Health and Care (H&C) number being available for each test to facilitate data linkage, it is not possible to identify the total number of residents or staff that have been tested during each month.

Average care home occupancy may be used as a proxy for the number of residents in Care Homes. For example, during October, Care Homes reported an average 81.2% occupancy against registered places. This would equate to an average of 12,913 residents in Care Homes during the month of October.

**Table 7: Pillar 2 tests for COVID-19 attributable to care homes with or without symptoms ~ August – October 2020**

Month	Symptomatic				Asymptomatic				All Tests
	Pos	Neg	N/K	TOTAL	Pos	Neg	N/K	TOTAL	
Aug-20	5 (1%)	330 (95%)	12 (3%)	<b>347</b>	96 (<1%)	31,641 (98%)	425 (1%)	<b>32,162</b>	<b>32,509</b>
Sept-20	24 (3%)	768 (95%)	16 (2%)	<b>808</b>	234 (<1%)	45,860 (98%)	678 (1%)	<b>46,772</b>	<b>47,580</b>
Oct-20	216 (17%)	1,050 (83%)	4 (<1%)	<b>1,270</b>	499 (1%)	42,966 (98%)	285 (<1%)	<b>43,750</b>	<b>45,020</b>

Source: COVID Labs universe, Regional Data Warehouse

Note: Whether a person was symptomatic or not is recorded at the time the sample was taken, therefore it is possible that the person may have had symptoms prior to testing or develop symptoms afterwards

Pos = Positive result

Neg = Negative result

N/K = Result not known

**Table 8: Pillar 2 positive tests for COVID-19 attributable to care homes, by care home role with/without symptoms ~ August – October 2020**

Month	Role	Symptomatic	Asymptomatic	All Tests
Aug-20	Resident	0	48	<b>48</b>
	Staff	0	41	<b>41</b>
	Role unknown	5	7	<b>12</b>
	<b>TOTAL TESTS</b>	<b>5 (5%)</b>	<b>96 (95%)</b>	<b>101</b>
Sept-20	Resident	0	87	<b>87</b>
	Staff	0	136	<b>136</b>
	Role unknown	24	11	<b>35</b>
	<b>TOTAL TESTS</b>	<b>24 (9%)</b>	<b>234 (91%)</b>	<b>258</b>
Oct-20	Resident	5	159	<b>164</b>
	Staff	8	313	<b>321</b>
	Role unknown	203	27	<b>230</b>
	<b>TOTAL TESTS</b>	<b>216 (30%)</b>	<b>499 (70%)</b>	<b>715</b>

Source: COVID Labs universe, Regional Data Warehouse

Note: Whether a person was symptomatic or not is recorded at the time the sample was taken, therefore it is possible that the person may have had symptoms prior to testing or develop symptoms afterwards

**Table 9: COVID-19 tests for RESIDENTS by age over and under 65 years ~ August – October 2020**

**a) Pillar 1 (residents only)**

Month of sample (PHA)	Under 65	65+	N/K	Grand Total
Aug-20	395	1503	0	1898
	20.8%	79.2%	0.0%	
Sep-20	609	2842	1	3452
	17.6%	82.3%	0.0%	
Oct-20	1136	5302	8	6446
	17.6%	82.3%	0.1%	
Grand Total	2140	9647	9	11796
	18.1%	81.8%	0.1%	

**b) Pillar 2 (residents only)**

Month of sample (PHA)	Under 65	65+	N/K	Grand Total
Aug-20	1292	8687	0	9979
	12.9%	87.1%	0.0%	
Sep-20	1688	10646	2	12336
	13.7%	86.3%	0.0%	
Oct-20	1676	9737	0	11413
	14.7%	85.3%	0.0%	
Grand Total	4656	29070	2	33728
	13.8%	86.2%	0.0%	

**c) Pillars 1& 2 combined (residents only)**

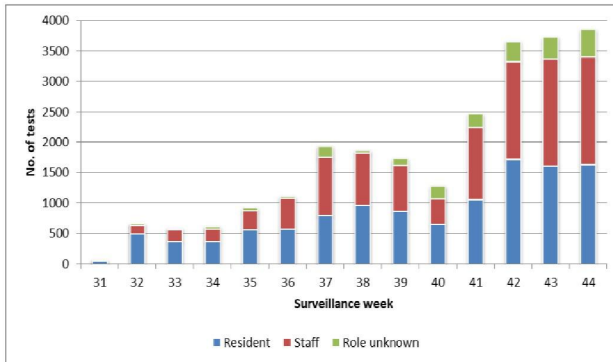
Month of sample (PHA)	Under 65	65+	N/K	Grand Total
Aug-20	1687	10190	0	11877
	14.2%	85.8%	0.0%	
Sep-20	2297	13488	3	15788
	14.5%	85.4%	0.0%	
Oct-20	2812	15039	8	17859
	15.7%	84.2%	0.0%	
Grand Total	6796	38717	11	45524
	14.9%	85.0%	0.0%	

Source: COVID Labs universe, Regional Data Warehouse

## Figures 1-6: Tests for COVID-19 attributable to care homes by Epi-week

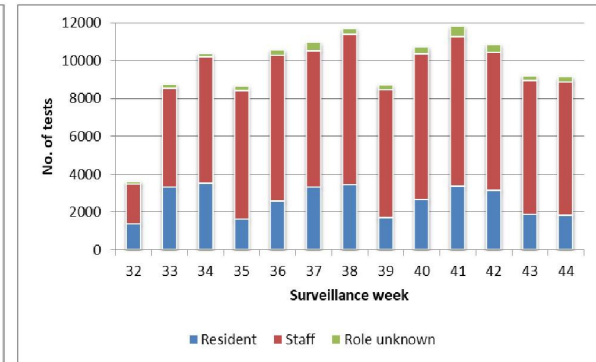
### Pillar 1

**Fig 1:**  
Test by Epi week– Staff & residents

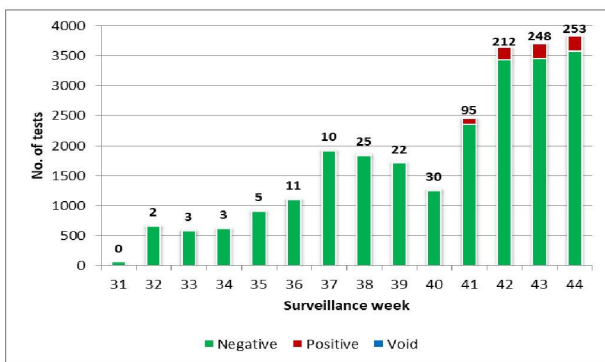


### Pillar 2

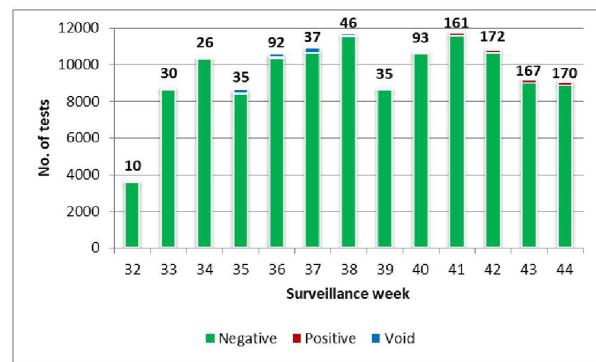
**Fig 2:**  
Test by Epi week– Staff & residents



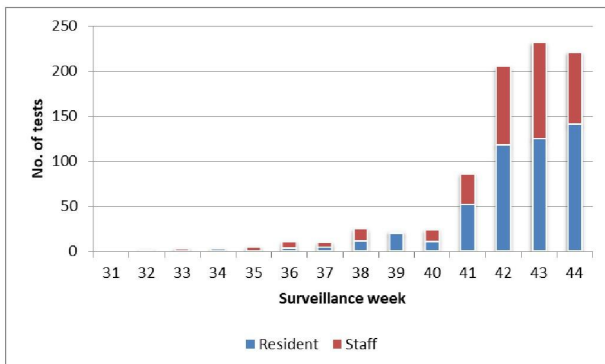
**Fig 3:**  
Test by Epi week– by result  
Note: Number above bar = positive result



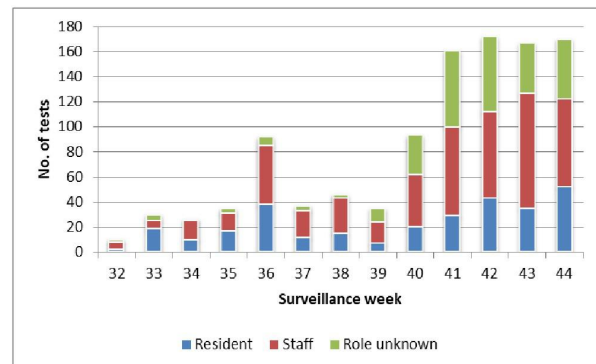
**Fig 4:**  
Test by Epi week– by result  
Note: Number above bar = positive result



**Fig 5:**  
Test by Epi week – by positive result



**Fig 6:**  
Test by Epi week– by positive result



Source: COVID Labs universe, Regional Data Warehouse

Note: Epidemiological (Epi) weeks is the standardised method of counting weeks to allow for year on year comparison of data. Data in figures 1-6 above relates the weeks between and including 27/07/20 – 02/08/20 (Epi week 31) to 26/10/20 – 01/11/20 (Epi week 44).



**Table 10: Tests for COVID-19 attributable to care homes with result outcome - Pillar 1 and Pillar 2 ~ August – October 2020**

	Homes matched	Only negative results (%)	Homes with at least 1 unknown result	Number of care homes with positive results		
				1 +ve	2 +ve	>2 +ve
Pillar 1						
August	279*	261 (93%)	10	8	-	-
September	255*	228 (89%)	14	10	1	4
October	313*	230 (73%)	34	22	15	39
Pillar 2						
August	408	202 (49%)	177	44	17	4
September	430	143 (33%)	227	88	27	17
October	423	130 (31%)	138	93	65	80

Source: COVID Labs universe, Regional Data Warehouse

Note:

- Categories in Table 10 are not mutually exclusive
- \* Pillar 1 – between August and October 4,374 tests could not be matched to a care home

Table 10 shows that in August approximately half (49%) of care homes tested under the Pillar 2 (national initiative) have returned only negative results i.e. about half of care homes are what may be referred to as ‘Green’ homes with no positive COVID-19 cases. About a third of homes (33%) were ‘Green’ homes in September and 130 (31%) were ‘Green’ homes in October.

#### 4 Data validation and completeness

Ongoing efforts are required to improve data quality and facilitate data linkage and reporting.

The following three variables are central to the ability to provide comprehensive and accurate reports for care home testing data.

- Health and Care Number
- Facility Name/ID
- Staff or Resident

**Table 11: Proportion of testing data with Health and Care number recorded**

Key Variables	Pillar 1			Pillar 2		
	Aug-20	Sept-20	Oct-20	Aug-20	Sept-20	Oct-20
H&C Number resident	95%	92%	92%	37%	38%	29%
H&C Number Staff	89%	84%	90%	21%	17%	18%

Source: COVID Labs universe, Regional Data Warehouse

The following caveats in respect of this dataset are also noted:

### Notes

- Pillar 1 results are provided for all days during August. Data for Pillar 2 results available from onset of National testing initiative on 3 August (epi week 32) – end October (Test start date used).
- Results downloaded from BSO Data Warehouse on 6th November 2020 to ensure all October Test results returned.
- Test results were matched using both RQIA registration number and request flag/care home role.
- At the time of report, work is ongoing to improve quality of data on prevalence of symptoms at time of test.
- The number of non-operational homes may vary month to month which may result in small changes to denominator data
- Care Homes will potentially test under both Pillars during a single month depending on outbreak status.

### Caveats

- It is not possible at present using Data Warehouse data to provide a further breakdown of which homes have tested in both Pillars due to gaps in data
- This data is continually being developed / validated and so it is likely that changes will occur month by month e.g. work is currently being carried out to improve the ability to determine whether a record is associated with a care home or not.
- Organisational ID/RQIA registration number may be incorrectly entered or absent in some data. This may account for gaps in being able to match testing results to care homes
- Health and Care number is required to link data (see Table 11) including the ability to identify number of individuals who may have had more than 1 test. This will also be important to monitor proportion of 2<sup>nd</sup> positive tests in individuals.
- Under the National initiative (Pillar 2) an organisational ID is required to link a result to a Care Home. Where an organisational ID is not present, it is not possible to ascertain how many gaps are related solely to Care Homes i.e. a missing ID may also relate to another sector such as education.
- The total number of staff in care homes is not known (independent sector, part time hours, zero hours contracts and use of bank/agency) and as such reliable denominator data not available.
- RQIA daily returns may offer an opportunity to provide denominator data for staff and resident counts, however as data is self-reported, further work would be required to ensure robustness.
- Standardisation of definitions, names and abbreviations across testing pathway will also improve data capture.

### Recommendation

Where possible, all organisations involved in care home testing should take all possible steps to ensure that all requests for COVID-19 tests should include as a minimum:

- Resident or Staff Health and Care Number
- RQIA registration number or / Organisational ID (10 digit number)
- Clear identification if test is related to a Resident or staff member
- Indication if individual being tested is symptomatic or asymptomatic at the time of test