APPENDIX A: SAMPLE SIZE GOALS BY OBJECTIVE AND STATES

Novel Virus Detection Sample Size Goals

In order for the United States to meet national novel virus detection goals, each state and territory listed below must test and report the number of influenza positive specimens per week using the CDC Flu rRT-PCR Dx Panel listed in **Table 1**. Jurisdictional goals are set by dividing the total national goal among all jurisdictions by population level.

- **High Season (Peak; 1/700):** This threshold requires PHLs to test 2,095 influenza positives per week nationally using the CDC Flu rRT-PCR Dx Panel. As a general guideline, each jurisdiction should meet or exceed their 1/700 goal at least four weeks per season around the peak of the season. In seasons with higher levels of activity, meeting or exceeding the 1/700 goal for more than four weeks is likely and desirable. The four-week threshold is intended to be a minimum goal.

  Laboratories in all jurisdictions should be brought up to a minimum testing level to ensure adequate sensitivity with geographical representativeness at the peak of season. Jurisdictions with multiple laboratories (e.g., local laboratories) performing the CDC Flu rRT-PCR Dx Panel are able to include data on specimens tested at all of these laboratories to reach their goal as long as subtyping is performed. While some jurisdictions already meet or exceed their 1/700 goal for four or more weeks each season, some jurisdictions are not yet able to achieve these testing levels for various reasons, including:

  - Difficulties in soliciting screened specimens from clinical laboratories
  - Jurisdictions with large populations have high goals that are difficult to attain
  - Personnel time or other resources that may limit testing levels.

- **Shoulders (Acceleration/Deceleration Phase, 1/200):** This threshold requires testing of 598 influenza positives per week nationally. If sufficient influenza viruses are circulating, jurisdictions should aim to meet the 1/200 goal each week of the influenza season.
- **Summer/Off-season (1/4):** This threshold requires testing of 11 influenza positives per week nationally. Due to rounding and the need for geographic representativeness, our sample size goals exceed the threshold minimum. A laboratory should aim to meet the 1/4 goal every week throughout the entire calendar year (52 weeks), as long as there are influenza-positive specimens being reported from clinical laboratories.

Vaccine Virus Selection and Antiviral Resistance Sample Size Goals

To meet both vaccine strain selection and antiviral resistance sample size goals, jurisdictions need to follow annual specimen submission guidance distributed by CDC and APHL. Additionally, CDC may solicit additional specimens beyond routine guidance to help meet national goals based on availability of specific virus types/subtypes/lineages. Cooperation with these requests is greatly appreciated and helps ensure that goals are met.

This objective is achieved with influenza positive specimens submitted to CDC and NIRCs by PHLs that are broadly representative of viruses circulating within a jurisdiction based on:

- **Top priority:** Timeliness – the most recently collected viruses.
- Geography – representative of the entire jurisdiction.
- Age – includes viruses from all affected age groups
- Disease severity – representative of the range of medically attended disease severity from outpatients to fatal cases.

Situational Awareness Sample Size Goals

Situational awareness, in the context of this document, refers to determining the true percent positivity of influenza viruses among medically attended visits for respiratory illnesses. To determine percent positivity, jurisdictions need weekly testing data on 137 unscreened specimens at the start and end of the season and 325 at the peak of season in order to be 95% confident in the percent positivity with a 5% margin of error. Clinical laboratory data should be sufficient to inform percent positivity, but unscreened respiratory specimens submitted to PHLs can also be used to meet these goals.

Table 1. Novel Virus Detection Sample Size Goals by Jurisdiction using 2020 United States Census populations.

State		# Influenza Positives to Test Per Week		
Name	Abbreviation	High Season Peak, 1/700 Goal to achieve ≥ 4 weeks per season	Shoulders Acceleration/deceleration phase, 1/200 Goal to achieve during MMWR weeks 40-20	Summer/Off-season 1/4 Goal to achieve: year-round
Alabama	AL	39	9	1
Alaska	AK	5	2	1
Arizona	AZ	46	13	1
Arkansas	AR	20	6	1
California	CA	251	72	2
Colorado	CO	37	11	1
Connecticut	CT	23	7	1
Delaware	DE	7	2	1
District of Columbia	DC	5	2	1
Florida	FL	135	39	1
Georgia	GA	67	20	1
Guam	GU	2	1	1
Hawaii	HI	10	3	1
Idaho	ID	12	4	1
Illinois	IL	81	24	1
Indiana	IN	43	13	1
Iowa	IA	20	6	1
Kansas	KS	19	6	1
Kentucky	KY	29	9	1
Louisiana	LA	30	9	1
Maine	ME	9	3	1
Maryland	MD	39	11	1
Massachusetts	MA	44	13	1
Michigan	MI	64	19	1
Minnesota	MN	36	11	1
Mississippi	MS	19	6	1
Missouri	MO	39	12	1
Montana	MT	7	2	1
Nebraska	NE	13	4	1
Nevada	NV	20	6	1
New Hampshire	NH	9	3	1
New Jersey	NJ	57	11	1
New Mexico	NM	14	4	1
New York	NY	124	36	1
North Carolina	NC	66	19	1
North Dakota	ND	5	2	1

State		# Influenza Positives to Test Per Week		
Name	Abbreviation	High Season Peak, 1/700 Goal to achieve ≥ 4 weeks per season	Shoulders Acceleration/deceleration phase, 1/200 Goal to achieve during MMWR weeks 40-20	Summer/Off-season 1/4 Goal to achieve: year-round
Ohio	OH	75	22	1
Oklahoma	OK	25	8	1
Oregon	OR	27	8	1
Pennsylvania	PA	82	24	1
Puerto Rico	PR	21	6	1
Rhode Island	RI	7	2	1
South Carolina	SC	33	10	1
South Dakota	SD	6	2	1
Tennessee	TN	43	13	1
Texas	TX	182	52	1
US Virgin Islands	USVI	1	1	1
Utah	UT	21	6	1
Vermont	VT	4	2	1
Virgina	VA	54	16	1
Washington	WA	48	14	1
West Virginia	WV	12	4	1
Wisconsin	WI	37	11	1
Wyoming	WY	4	2	1