Council of State and Territorial Epidemiologists
Position Statement

03-ID-10

Committee: **Infectious Disease**

Title: **Revised Guidelines for Determining Residency for Disease Reporting Purposes**

Statement of the Problem:
In general, cases of nationally notifiable diseases are reported based on the case's place of residence, regardless of where exposure may have occurred. While usually obvious, in a small proportion of cases (e.g., children in split parental custody, travelers becoming ill away from home, persons with no fixed address) there can be ambiguity about how to determine residence for reporting purposes. With input from several CSTE members, CDC has drafted updated guidelines for determining residence for disease reporting purposes [Attachment -- Updated guidelines for determining jurisdiction responsible for reporting notifiable diseases to CDC under the National Notifiable Disease Surveillance System (NNDSS)].

Statement of the desired action(s) to be taken:
CSTE should review, amend where appropriate, and adopt these updated guidelines for determining residence for disease reporting (Attachment).

CDC programs participating in NNDSS will follow the updated guidelines for determining residence for notifiable disease reporting. CDC's Epidemiology Program Office, which manages NNDSS, will offer technical assistance as needed regarding interpretation of the guidelines.

Public Health Impact:
Adapting these guidelines is not expected to significantly alter broad geographic patterns of disease incidence. However adapting these uniform guidelines is expected to help clarify and streamline local decision-making about a small number of cases each year. In some cases there is no one "right" answer to the question of residency. The revised guidelines will help ensure complete reporting and avoid duplicate reporting of cases with ambiguous residency--achieving consistency without any need to agonize over each determination.

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ATTACHMENT

Updated guidelines for determining jurisdiction responsible for reporting notifiable diseases to CDC under the National Notifiable Disease Surveillance System (NNDSS)

Effective Date: _____

Summary of updated guidelines

For purposes of notifiable disease reporting to CDC, cases should be reported by the jurisdiction of the person's "usual residence" at the time of disease onset. For most people, usual residence is obvious and unambiguous. However, situations do arise for many people in which usual residence is less clear. The following guidelines are intended to provide uniform standards for determining usual residence for disease reporting purposes. The guidelines are modeled after provisions developed for the U.S. Census. The overarching aim of these guidelines is that all cases should be reported, but no case should be reported by multiple jurisdictions. It is important to note that following these guidelines may result in cases being reported by a jurisdiction other than where the infection was acquired. In such instances, other variables can be used to reflect "imported" infections acquired outside the jurisdiction reporting the case.

For instances in which usual residence remains ambiguous, the public health jurisdictions involved should discuss the situation and come to agreement on which jurisdiction will report the case, based on the principles contained in these guidelines. When jurisdictions cannot agree, the Division of Public Health Surveillance and Informatics (DPHSI), Epidemiology Program Office (EPO), Centers for Disease Control and Prevention (CDC) is willing to arbitrate the disagreement and recommend a reporting jurisdiction.

I. Rationale for basing disease reporting guidelines on U.S. Census residency rules.

Although not developed specifically for disease surveillance purposes, residency rules used by the U.S. Census have been developed over many years to account for most circumstances of ambiguous residence. In addition, since notifiable disease data are often combined with population data, disease reporting guidelines based on census residence rules will contribute toward greater consistency in the methods used to collect numerator and denominator data used in disease rates.

II. Concept of usual residence

Usual residence is defined as the place where the person lives and sleeps most of the time, which is not necessarily the same as the person's voting residence, legal residence, or the place where they became infected with a reportable disease. Determining usual residence for most people is easy and unambiguous. However, the usual residence for some people is not obvious. A few examples are people without housing, commuter workers, retirees who spend the winter months in warmer climates (i.e. "snowbirds"), college students, military personnel, and migrant workers.

III. Parameters for disease reporting

It is important to note that disease reporting is not intended to capture the location of exposure per se. If the patient is known to have acquired their infection outside the reporting jurisdiction, the IMPORTED variable should be used in the National Electronic Telecommunications System for Surveillance (NETSS) or the nationally notifiable disease (NND) report message to reflect acquisition of infection outside the reporting jurisdiction. Additional guidance on use of the IMPORTED variable is provided in Appendix I.

To determine usual residence, it is necessary to define a fixed *reference point* in time, analogous to the "census day" used for the census. In addition, for persons who regularly move between residences, it may be necessary to consider a *reference period* preceding the fixed reference point.

A. Reference Point

Date of symptom onset is selected as the reference point for establishing "usual residence." If date of symptom onset is not available, the date of lab culture, diagnosis, or the first case report to the health department are recommended, in that order, as the reference point. This is consistent with the use of the EVENTDATE field in NETSS, which gives priority to the "earliest known date associated with this incidence of disease." The advantages to using symptom onset as the reference point rather than diagnosis date are that onset is a more meaningful date from an epidemiological point of view (i.e. more proximal to the date of exposure). In addition, date of diagnosis is frequently unavailable or even non-existent, particularly for cases that are not lab-confirmed or physician-diagnosed (e.g., epi-linked cases identified during an outbreak investigation).

B. Reference Period

If the person is on a regular schedule or cycle for moving between two or more residences, a reference period preceding onset date may be necessary to determine usual residence. Ideally this reference period might coincide with the incubation period of the disease being reported. However, given the variability and uncertainty of incubation periods for the range of notifiable diseases, basing the reference period on disease specific incubation periods would be unnecessarily complicated and impractical. Therefore, we propose defining the reference period consistent with Census Bureau rules, based on the cycle that an individual has for moving between residences. This cycle could be weekly, monthly, yearly, or some other interval. Again, reference period is only relevant for determining usual residence for individuals with a regular cycle for moving back and forth between two or more residences. When the individual takes up a new residence for an indefinite period without intending to return to the previous residence, the jurisdiction of the new residence will be the recommended reporting authority, even if this change of residence occurred shortly before disease onset.

IV. Specific guidelines for determining usual residence at time of symptom onset.

A. People away on vacation or business

People temporarily away on vacation or a business trip at the time of disease onset should be reported by the jurisdiction of their usual residence.

B. People without housing

People without a usual residence should be reported by the jurisdiction where they were staying on the day of disease onset.

C. People with multiple residences

1. Commuter workers living away part of the week while working (on a weekly cycle) should be reported by the jurisdiction where they stay most of the week.

2. People who live in one state most of the year but who regularly spend part of the year in another state (e.g., snowbirds) can be said to have an annual cycle and should be reported by the jurisdiction of the residence where they live most of the year.

3. Children in joint custody should be reported by the jurisdiction of the residence where they live most of the time. If the time is equally divided, they are reported by the jurisdiction where they were staying at the time of disease onset.

4. People who move between residences without any regular cycle should be reported by the jurisdiction of the residence where they live most of the time. If their time is equally divided, report based on where they were staying at the time of disease onset.

D. Students

1. College or boarding school students on a typical yearly academic cycle should be reported by the jurisdiction of the residence where they live most of the year.

2. If the individual is an intermittent or part-time student without a regular cycle for moving between parental and school residences, then report by the jurisdiction where they were living at the time of disease onset.

E. Live-ins

Foster children should be reported by where they are living at the time of disease onset.

F. Military or merchant marine personnel in the U.S.

1. People in the military residing in the United States should be reported by the jurisdiction at their usual residence, either on- or off-base.

2. Crews of military vessels with a U.S. homeport should be reported by the jurisdiction at their usual onshore residence if they report one (the place where they live and sleep most of the time when they are onshore); otherwise, at their vessel's homeport.

3. Crews of U.S. flag merchant vessels engaged in inland waterway transportation should be reported at their usual onshore residence (the place where they live and sleep most of the time when they are onshore).

4. Crews of U.S. flag merchant vessels docked in a U.S. port or sailing from one U.S. port to another U.S. port should be counted at their usual onshore residence if they report one (the place where they live and sleep most of the time when they are onshore). If they have no onshore residence, follow rule IV.B and report from nearest jurisdiction at the time of illness onset.

G. Institutionalized persons

1. Patients in general hospitals or wards at the time of symptom onset should be reported by the jurisdiction of their usual residence (the place where they live and sleep most of the time when they are not hospitalized). Newborn babies who have not yet been discharged following delivery should be reported by the mother's usual residence.

2. In general, persons who are institutionalized for indefinite or long-term stays should be reported by the jurisdiction of the facility where they are staying at the time of disease onset. Examples of such facilities include:

> chronic or long-term disease hospitals; hospices; nursing or convalescent homes; inpatient drug/alcohol recovery facilities; homes, schools, hospitals, or wards for the physically handicapped, mentally retarded, or mentally ill; federal and state prisons, jails, detention centers, and halfway houses; orphanages; residential care facilities for neglected or abused children.

3. Staff members living in hospitals, nursing homes, prisons, or other institutions should be reported by the jurisdiction of their usual residence (the place where they live and sleep most of the time); otherwise by the jurisdiction where the institution is located.

H. Foreign citizens (Individuals, regardless of citizenship, who are diagnosed in the U.S. with a notifiable disease, should be reported to CDC.)

1. Foreign citizens who have established a household or are part of an established household in the U.S., including those here for work or study, should be reported by the jurisdiction of their usual residence in the U.S.

2. Foreign citizens who live on diplomatic compounds (e.g., embassies, consulates) should be reported by the jurisdiction where the facility is located.

I. Individuals diagnosed in the U.S. but with disease onset outside the U.S. or its overseas territories.
If the person's usual residence at the time of symptom onset was outside the U.S., then the jurisdiction of usual residence at the time of *diagnosis* should report the case, using the same guiding principles contained in this document to determine usual residence. If the person has no usual residence in the U.S. (as per section B or H.3) then the case should be reported by the jurisdiction where the person was staying at the time of diagnosis.

J. U.S. residents diagnosed abroad
When disease onset and diagnosis occurs overseas, illness among U.S. residents is only notifiable in the U.S. if treatment or care occur in the U.S. Health care providers in the U.S. treating patients diagnosed with a notifiable disease while traveling or temporarily living outside the U.S. should notify their local or state health department of the continued treatment or care of a notifiable condition, along with information regarding the location where the disease was likely acquired. The case jurisdiction should be based on location of "usual residence" at the time of treatment or care, and the case should be classified as "imported" as defined in Appendix I.

K. Reporting involving U.S. territories and possessions outside the fifty states and D.C.
See Appendix I.

V. Resolution of disagreements between states

When there is disagreement between states regarding who should report a case, states are encouraged to resolve their disagreement amongst themselves based on the underlying principles contained in these guidelines. If states are unable to come to agreement, the Branch Chief, Surveillance Systems Branch, CDC/EPO/DPHSI is available to arbitrate the disagreement, and recommend a reporting jurisdiction.

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Appendix I. Clarification of response categories for *Imported* variable, NETSS core record

The imported variable should be used in instances when the case is believed to have acquired their infection outside the reporting jurisdiction, based on the usual incubation period for the disease. Below are the current response categories for the *Imported* variable, taken from page 4-12 of the Manual of Procedures for the Reporting of Nationally Notifiable Diseases to CDC:

Coding: Indicates if the case was locally acquired or imported into the state or the US.

Values:
1 = Indigenous (acquired in U.S. in reporting state)
2 = International (acquired outside U.S.)
3 = Out of State (acquired in U.S. but outside the reporting state)
9 = Unknown

Questions have arisen regarding how to categorize cases acquired in U.S. Territories. The following clarification is proposed, which is derived from language in the Code of Federal Regulations related to Foreign Quarantine. U.S. territories include only Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia. For the purposes of categorizing cases regarding the *Imported* variable, only Puerto Rico and the U.S. Virgin Islands should be considered inside the U.S. The rationale for this is based on regulations for foreign quarantine. All other territories should be considered outside the U.S. Therefore, while the response categories remain the same, the description of values for the *Imported* variable should be amended to read:

1 = Indigenous (acquired in state or territory reporting the case)

2 = International (acquired outside U.S. [i.e. outside 50 states, District of Columbia, Puerto Rico, and the U.S. Virgin Islands]). This includes cases imported to the U.S. from the U.S. overseas territories of Guam, American Samoa, Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia.

3 = Out of State (acquired in U.S. [i.e. in 50 states, District of Columbia, Puerto Rico, or the U.S. Virgin Islands] but outside the reporting state).

9 = Unknown

Note: Citizenship or immigration status of the patient has no bearing on the coding of the Imported variable.

The following chart is intended to further assist in classifying individuals with respect to the imported variable.

Location Infection Acquired	**Location Reporting Case**	**Value for *Imported* variable**
In any state (including District of Columbia, Puerto Rico, or the U.S. Virgin Islands)	In the same state as infection acquired (including District of Columbia, Puerto Rico, or the U.S. Virgin Islands)	1 = Indigenous
In any state (including District of Columbia, Puerto Rico, or the U.S. Virgin Islands)	In a different state as infection acquired (including District of Columbia, Puerto Rico, or the U.S. Virgin Islands)	3 = Out of State

In a U.S. overseas territory (including Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia.)	In the same U.S. overseas territory as infection acquired (including Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia.)	1 = Indigenous
In a U.S. overseas territory (including Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia.)	In a different U.S. overseas territory as infection acquired (including Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia.)	2 = International
In a U.S. overseas territory (including Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia.)	In any state (including District of Columbia, Puerto Rico, or the U.S. Virgin Islands)	2 = International
Outside of any state, District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia	In any state, District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of Northern Mariana Islands, Palau, Marshall Islands, and Federated States of Micronesia	2 = International