

Overall Disability (v1)
Definition Fact Sheet & Technical Brief

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*Pilot tester; jurisdictional pilot testers include Tang (intellectual and developmental disability; self-care and independent living), Hoferka (overall; specific developmental, behavioral, and learning; self-care and independent living), Borroto (vision; hearing), Gonzalez (vision; hearing; mobility), Schultz (vision; hearing; mobility), and Ekong (specific developmental, behavioral, and learning; cognition); national level testers include Stein, Wray, and Cree (all definitions).

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Definition Description: The Overall Disability (v1) definition is part of a group of eight definitions (seven domain-specific and one overall) to identify emergency department visits by people with disabilities using a set of criteria based on diagnostic codes, including ICD-9, ICD-10, SNOMED codes, and keywords representing patient reason for visit. These definitions can be used to disaggregate monitored health outcomes by disability status and type and will ultimately help improve emergency and ongoing surveillance efforts. We encourage National Syndromic Surveillance Program (NSSP) Community of Practice (CoP) members to work with disability organizations and members of the disability community within their jurisdictions when using the definitions, interpreting results, and developing recommendations based on these findings.

The final Overall Disability (v1) definition includes seven domain-specific definitions for disability as well as other non-specific disability-related diagnostic codes and chief complaints:

- Hearing Disability (v1)
- Vision Disability (v1)
- Mobility Disability (v1)
- Intellectual and Developmental Disability (v1)
- Cognition and Central Nervous System Disability (v1)
- Specific Developmental, Behavioral, and Learning Disability (v1)
- Self-care and Independent Living Disability (v1)

- Generic diagnostic codes and chief complaints associated with disability not covered under any specific domain

We have also developed a list of codes related to chronic conditions and immune system disorders and mental health. For mental health, we started with codes included in an existing NSSP Mental Health syndrome definition (Anderson et al., 2022 and Radhakrishnan et al., 2022) with suggested additions related to disability; see [accompanying spreadsheet](#). These optional resources may be used 1) to customize this definition to include mental health and chronic conditions as disabilities or 2) in combination with the disability definitions to examine chronic conditions and mental health as outcomes among people with disabilities. This definition was tested and intended to run on the “CC and DD parsed free text” field in ESSENCE.

New or Revised Definition: New Definition

Date Added to ESSENCE: February 2025

Use-Cases for Definition:

Case-finding: Not Intended as Use Case

Trend monitoring: Primary

Early outbreak detection: Not Intended as Use Case

Emergent Condition: Not Intended as Use Case

Justification: Information on disability status and type are not systematically collected during health encounters, and, as such, monitored health outcomes cannot currently be disaggregated by this demographic. Identifying people with disabilities using definitions for syndromic surveillance could bolster ongoing surveillance before, during, and after emergencies. It could also improve national, state, and local capacity to respond to, detect, understand, and monitor health events among people with disabilities during emergencies.

Data Source During Development: Emergency department visits

Validation Methods: The Association of State and Territorial Health Officials (ASTHO) worked collaboratively with CDC and the Council of State and Territorial Epidemiologists (CSTE)-led NSSP CoP to create diagnostic code-based definitions to identify emergency department visits from people with disabilities through a stakeholder-informed process. ASTHO, with support from Thought Bridge LLC, collected stakeholder feedback through a two-step process to inform the development of diagnostic code- and chief complaint-based definitions for disability to be used in NSSP. This two-step process included key informant interviews (KIIs) followed by five scientific panel sessions to inform definition development and broader dissemination efforts to promote uptake of the definitions.

In 2021, ASTHO conducted six 1-hour KIIs with disability subject matter experts, including both informants with lived experience and acquired knowledge, to inform development of these new definitions. The semi-structured KIIs explored topics including syndromic surveillance knowledge, prior definition development, and perspectives on using syndromic surveillance to identify people with disabilities. Interviews were modified based on specific subject-matter knowledge. Key informants held positions across academia, federal agencies, and independent contracting groups and support a variety of CDC and federally funded projects and workgroups, including:

- CDC-funded Disability and Health Program,
- CDC-funded 10-State Medicaid Project, and
- Federal Interagency Workgroup on Intellectual Disability and Developmental Disability Data.

Findings from the KIIs helped inform the initial strategy for selecting medical diagnosis codes to include in the definition and are summarized in an [ASTHO Brief](#).

The team used an iterative search strategy for medical diagnosis codes, starting first with the CMS [Chronic Conditions Warehouse \(CCW\)](#) and an existing diagnostic code-based algorithm used by a prior CDC-funded project for identifying people with intellectual and developmental disability (IDD) using Medicaid claims data (McDermott et al., 2018). From these two resources, we developed an initial set of ICD-10 codes, sorted into five initial domains of disability including Hearing, Vision, Mobility, IDD, and Cognition and Central Nervous System Disorders. We allowed single codes to be placed into more than one domain for conditions impacting more than one domain of functioning. We used the National Center for Health Statistics ICD 10 code database to identify the names of conditions associated with the codes included in the CCW and to identify additional relevant ICD-10 and ICD-9 codes. We also used the following search strategy in PubMed to identify relevant research literature that used ICD coding to identify persons with conditions potentially associated with disability: “domain name [one of five included in initial set]” AND (“disability” OR “disabl*” OR “condition” OR “impairment” OR “disorder” OR “disturbance”). We searched Title and Abstract for relevant articles and read the full text to determine if a code list was present for extraction. However, few articles (n=4) were relevant and included in the first iteration of the definition (Friberg et al., 2012; McDermott et al., 2018; Liu et al., 2020; and Phillips et al., 2019). Scientific panel participants and project staff shared additional peer-reviewed articles including code lists that were not identified through our search strategy (Larson, 2001).

Next, the definition team hosted a series of five scientific panel discussions with stakeholders from the NSSP CoP, people with disabilities, national disability organizations, disability and health researchers, state and local health departments, and emergency medicine. During the first scientific panel, panel participants expressed a need to cast a broad net and consider the breadth of disability domains and conditions that are included in disability policies like the Americans with Disabilities Act (ADA). For each disability domain we considered the full spectrum of signs, symptoms, and functional impairments that might be present for a given condition. Using the National Center for Health Statistics ICD-10 code database, we searched for relevant codes using medical conditions and keywords used in the ADA for each disability domain determined by the scientific panel. We chose to be as expansive as possible in our initial search for conditions. We excluded conditions that are generally expected to last <6 months, can be treated either surgically or through medication, and are acute or generally self-limiting (e.g., conditions that do not result in functional impairments or limitations to daily life). Per panel participant feedback during the first scientific panel, we added domains for self-care and learning disabilities. Panel participants also recommended including chronic conditions and mental health conditions in our definition of disability. We began developing a code list for chronic conditions potentially associated with disability and reviewed an existing mental health definition for syndromic surveillance (Anderson et al., 2022 and Radhakrishnan et al., 2022) for possible inclusion in this definition.

The first iteration of the definitions was provided to the scientific panel for feedback and edits during a second scientific panel session. The scientific panel provided numerous edits to the initial definition such as adding or recategorizing specific codes. Once panel feedback was incorporated in a second iteration of the definition, SNOMED codes were added through coding from ICD-10 to SNOMED using the UMLS Terminology Services SNOMED CT US Version.

CDC pilot tested the second iteration of the definition on national level data. CDC shared the results of this national level pilot test during the third scientific panel session. After national pilot testing, and following the third scientific panel, key terms were added to each domain and definitions were pilot tested at the jurisdiction level. Chief complaint terms were tested simultaneously at the national and state/local levels. State/local jurisdictions calculated positive predictive values (PPVs) for the definitions and provided suggested edits to improve PPV. Finally, a second round of national testing was conducted to ensure PPVs were 90% or above. [Note: Positive predictive value (PPV) is the likelihood the definition can successfully identify whether the disability is documented in the emergency room visit.] To calculate PPV, pilot testers ran each definition separately. Next, for each definition, pilot testers selected a random sample of 375 emergency department visits within their jurisdictions (or at the national level, for CDC pilot testers) and reviewed chief complaints and discharge diagnoses. They classified each visit into three categories: Probable—The visit is likely by a person with a disability (e.g., “patient is deaf”); Undetermined—Cannot determine whether the visit was by a person with a disability (e.g., ICD codes for unspecified hearing loss and impacted cerumen; unknown whether hearing loss is temporary caused by impacted cerumen); and

Ruled out—The visit is clearly not by a person with a disability; this would include false positives (e.g., “patient does not have hearing loss”). PPV was calculated for each definition by dividing the total number of probable visits over the total number of visits examined.

In consultation with the Nssp CoP we chose to use the existing Nssp definition for mental health as a possible domain in this definition but would create a short list of additional codes that may be considered mental health-related disabilities. This list is provided in a spreadsheet as an optional addition that jurisdictions can consider including (either as mental health-related disabilities or as monitored mental health-related outcomes among people with disabilities) depending on what they are hoping to investigate. Additionally, following feedback from the scientific panel and initial national pilot testing of the chronic conditions domain, the team decided to provide this domain as a separate resource for partners. This resource includes more than 2,000 diagnostic codes split by chronic condition type and can be used in conjunction with any of the domains below to understand how these conditions and disability co-occur. This list is provided in a spreadsheet as an optional addition that jurisdictions can consider.

The final Overall Disability (v1) definition includes seven domain-specific definitions for disability and other non-specific disability-related diagnostic codes and chief complaints **Error! Bookmark not defined.:**

- Hearing Disability (v1)
- Vision Disability (v1)
- Mobility Disability (v1)
- Intellectual and Developmental Disability (v1)
- Cognition and Central Nervous System Disability (v1)
- Specific Developmental, Behavioral, and Learning Disability (v1)
- Self-care and Independent Living Disability (v1)
- Generic diagnostic codes and chief complaints associated with disability not covered under any specific domain

We have also developed a list of codes related to chronic conditions and immune system disorders and mental health. For mental health, we started from codes included in an existing Nssp Mental Health syndrome definition (Anderson et al., 2022 and Radhakrishnan et al., 2022) with suggested additions related to disability; see [accompanying spreadsheet](#). These optional resources may be used 1) to customize this definition to include mental health and chronic conditions as disabilities or 2) in combination with the disability definitions to examine chronic conditions and mental health as outcomes among people with disabilities.

Important analytic note: *Several mental health-related conditions are included in the specific developmental, behavioral, and learning domain, including codes related to attention-deficit/hyperactivity disorder (ADHD) and conduct disorders. If using the mental health code list (or the existing Nssp mental health definition) in combination with the disability definitions to examine mental health as an outcome among people with disabilities analysts will need to decide whether to consider ADHD and conduct disorders as disabilities or as outcomes to examine among people with disabilities depending on the purpose of the analysis and then adjust the definitions accordingly. Similarly, analysts wishing to examine mental health as an outcome may consider adding exclusion criteria for the chief complaint term “[grave disability](#)” [i.e., legal designation in California related to mental health (and/or substance use disorder, as of 2024), where the person is unable to provide for their basic personal needs for food, clothing, or shelter].*

A summary of documented changes made during each step of the development process is included in Table 3. We have also created an Excel sheet with all codes and chief complaints included in this definition as an appendix. The definition domain fact sheets offer versatile guidance, allowing users to employ them individually or collectively as a whole definition of disability based on the objectives of the jurisdiction. Utilizing the accompanying Excel sheets enables a comprehensive understanding of the conditions included within each domain.

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Validation Results: We tested non-specific disability-related diagnostic codes and chief complaints that are not captured under seven domains of disability included in this suite of disability definitions; see fact sheets for domain-specific definitions for validation results of those individual components of this definition.

Testing other non-specific disability-related diagnostic codes and chief complaints, jurisdictions found that this definition was broadly able to capture the intended cases. A few false positives were identified, however showed limited impact on the definitions' ability to identify intended cases. The non-specific disability-related diagnostic codes and chief complaints included under the Overall Disability (v1) definition were tested nationally and by two states: CA and IL. States only tested codes and keywords not included elsewhere in the definition (i.e., codes and keywords generally related to disability but that are not domain-specific); however, the Overall Disability (v1) definition includes these codes and keywords as well as all other codes from identified subdomains.

CA tested this definition using data from one local health jurisdiction onboarded as a site in BioSense. CA has 61 local health jurisdictions. Jurisdictions partnering with CDC and ASTHO to pilot this definition saw a positive predictive value (PPV) of 99% for CA and 95% for IL. Following edits made following jurisdiction testing and the second round of national-level testing, PPV at the national level for the Overall Disability definition was 92.8%.

Limitations: CA and IL only tested non-specific disability-related diagnostic codes and chief complaints that are not already captured under seven domains of disability included in this suite of disability definitions. However, the Overall Disability (v1) definition includes non-specific disability-related diagnostic codes and chief complaints as well as all other codes and chief complaints from identified subdomains. The non-specific disability-related diagnostic codes and chief complaints included in the Overall Disability definition have limitations, including some false positives that remain (though infrequently) related to disability in the family presenting to the hospital with the patient. Potential false positives also remain related to [“grave disability”, a legal status in California](#), referring to disability related to mental health (and/or substance use disorder, as of 2024), where the person is unable to provide for their basic personal needs for food, clothing, or shelter.

Diagnostic codes associated with Intellectual and Developmental Disability and Specific Developmental, Behavioral, and Learning Disability domains may be applied differently for children and adults; therefore, data users should be aware that certain codes may be more or less frequently used depending on age. Examples are developmental disorders that are more commonly diagnosed in school-aged children, such as learning disabilities (dyslexia, dyscalculia, dysgraphia, etc.), attention-deficit/hyperactivity disorder (ADHD), and behavioral disorders such as conduct disorder. Intellectual disability may also not be clinically recognized, particularly among adults, depending on the severity or underlying cause (see [Patel et al., 2020](#)).

Additionally, there are at least five limitations common to the Overall Disability (v1) definition and all seven disability domain-specific definitions. First, identifying people with disabilities as a demographic using diagnostic codes follows a medical model of disability, and does not capture the social or identity-based aspects of disability preferred by many disability advocates. However, NSSP-ESSENCE is limited by the information routinely collected in the medical record such as diagnostic codes and notes captured as “chief complaint” to document presenting medical and relevant information for the visit. Future efforts to also include self- or other-report of functional disability collected as a demographic at the point of care may inform refinements to these definitions. Second, diagnostic codes do not map directly to functional limitations. However, we can assume that certain conditions can be reasonably expected to produce functional limitations (e.g., someone with muscular dystrophy could reasonably be categorized as having a mobility disability). Third, coding practices can vary by region, hospital, and provider. Fourth, this method depends on factors outside the provider’s control (billing considerations; EMR systems such as Epic or Cerner may have limits on how many dx codes can be listed under a visit). As a definition that is dependent on secondary diagnosis codes for detection not necessarily captured by the chief complaint, the ability to identify a person with a disability is influenced by the number of diagnosis codes a facility submits for syndromic surveillance. Therefore, this definition may be better able to identify people with disabilities in better resourced facilities, while data from lower cost EMR systems may be more likely to underrepresent the disability community. Fifth, many people with disabilities will be missed using this method as it relies on existing data collected on electronic health records (EHR), rather than standard self-reported questions that are commonly used to identify people with disabilities. People presenting to an emergency department for a health crisis or emergency may not have disability-related diagnoses indicated on their EHR, because their disability was not recognized by the provider and/or disclosed by the patient. Mild (or non-apparent) disabilities and/or disabilities unrelated to the reason for the ED visit may be more frequently under-documented than more apparent disabilities or those directly associated with the reason for visit.

The definitions can be used to identify important trends and serve as a “signal” of group variation for key outcomes of interest. However, NSSP users must be aware that results are likely an incomplete indicator of disability status or type. Despite limitations, these definitions can help serve as a stopgap to identify people with disabilities within NSSP-ESSENCE while we work collectively to address systemic issues related to collecting disability as a demographic at the point of care.

Definition Fields and Structure: Overall Disability including seven domain-specific definitions for disability and other non-specific disability-related diagnostic codes and chief complaints.

Detailed Definition Components

Table 1. Inclusion and exclusion terms based on a case definition using disability-specific discharge diagnosis codes, Overall Disability (v1) definition. The Overall Disability (v1) definition encompasses the entire disability definition. Table 1 highlights codes and keywords not included in other subdomains.

Variable Type	Terms	Description (Diagnosis Codes Only)
Inclusions		
Discharge Diagnosis: ICD-10-CM	Z02.71	Encounter for disability determination
	Z71.1	Person encountering health services to consult on behalf of another person
	Z73.6	Limitation of activities due to disability
	Z75.1	Person awaiting admission to adequate facility elsewhere
	Z75.5	Holiday relief care
Discharge Diagnosis: ICD-9-CM	N/A	
Discharge Diagnosis: SNOMED concepts	N/A	
Chief complaint terms	(disability determination or percent) AND (disabled, function, or disability rating)	
	disabled, disability, disabilities	
	limitation	
	auxiliary aid	
	ADA require	
	loss of touch	
	handicap*	
	(service or guide) AND (animal or dog or horse)	
	accommodations, accomondations, accomodations	
	assistive AND (device or technology or equipment)	
	accessible, accessibility	
	artificial limb, surgical appliance	
	measured restrictions and limitations	
Exclusions		
Chief Complaint Terms	not disab, no disab, denies disab, no limitation	

*Term may be used by providers; however, this term is not endorsed by the disability community. We included this term to ensure we are including as many true positive health encounters in the data as possible (casting a wider net). For suggestions on non-stigmatizing language related to disability see: [Preferred Terms for Select Population Groups & Communities | Gateway to Health Communication | CDC](#)

Plain Language Syntax Description: The Overall Disability (v1) definition intends to identify emergency department visits by people with disabilities. The definition includes diagnosis codes and words related to: 1) disability overall, 2) intellectual and developmental disability, 3) specific developmental, behavioral, and learning disability, and functional difficulty related to 4) hearing, 5) vision, 6) mobility, 7) cognition, and 8) self-care and independent living. Users can combine the Overall Disability (v1) definition with other definitions used to track important public health outcomes (e.g., heat-related illness, suicide attempts, or infection) to find out if emergency department visits for these important outcomes are more common among people with disabilities compared to people without disabilities. This definition will not capture everyone with a disability, but it can be used to look at trends and help public health professionals better understand the impact of health concerns on the disability community. This information can be used to help make sure the needs of people with disabilities are considered and addressed when responding to health concerns.

Table 2. ESSENCE syntax, Overall Disability (v1) Definition

This definition was tested and intended to run on the “CC and DD parsed free text” field in ESSENCE.	
Overall Disability	
• ICD9	
○	(,^;389;^,or,^;389[278];^,or,^;389[1][0-9];^,or,^;38906;^,or,^;2251;^,or,^;2251[0-9];^,or,^;31523;^,or,^;3563;^,or,^;3563[0-9];^,or,^;386[02];^,or,^;386[02][0-9];^,or,^;388[2589];^,or,^;388[2589][0-9];^,or,^;38811;^,or,^;744;^,or,^;744[0-9];^,or,^;744[0-9][0-9];^),ANDNOT,(,^;380.4;^,or,^;382[0-9];^),or,(,^;190^,or,^;224;^,or,^;250;^,or,^;3563;^,or,^;36[01234679];^,or,^;3684[1-7];^,or,^;37[0145678];^,or,^;379[35];^,or,^;743;^;190[0-9];^,or,^;224[0-9];^,or,^;2505[0-3];^,or,^;3563;^,or,^;36[01234679];^,or,^;36[01234679][0-9];^,or,^;3684[0-7];^,or,^;37[0145678][0-9];^,or,^;3793[123459];^,or,^;379[5];^,or,^;743[0-9];^,or,^;743[0-9][0-9];^,ANDNOT,^;37484;^),or,(,^;046;^,or,^;046[0-9];^,or,^;046[0-9][0-9];^,or,^;2533;^,or,^;2533[0-9];^,or,^;2594;^,or,^;2594[0-9];^,or,^;2632;^,or,^;2632[0-9];^,or,^;2700;^,or,^;2700[0-9];^,or,^;27739;^,or,^;3239;^,or,^;3239[0-9];^,or,^;3308;^,or,^;3308[0-9];^,or,^;331[0126-9];^,or,^;331[0126-9][0-9];^,or,^;333[046];^,or,^;333[046][0-9];^,or,^;3337[29];^,or,^;3338[12359];^,or,^;334[012389];^,or,^;334[012389][0-9];^,or,^;335;^,or,^;335[0-9];^,or,^;335[0-9][0-9];^,or,^;338[234];^,or,^;338[234][0-9];^,or,^;34[0124];^,or,^;34[0124][0-9];^,or,^;34[0124][0-9][0-9];^,or,^;34939;^,or,^;356[01248];^,or,^;356[01248][0-9];^,or,^;357[349];^,or,^;357[349][0-9];^,or,^;35789;^,or,^;35789[0-9];^,or,^;359;^,or,^;359[0-9];^,or,^;359[0-9][0-9];^,or,^;438[2345];^,or,^;438[2345][0-9];^,or,^;5880;^,or,^;5880[0-9];^,or,^;714[0-49];^,or,^;714[0-49][0-9];^,or,^;71489;^,or,^;715;^,or,^;715[0-9];^,or,^;715[0-9][0-9];^,or,^;720[09];^,or,^;720[09][0-9];^,or,^;721[01239];^,or,^;721[01239][0-9];^,or,^;722[56];^,or,^;722[56][0-9];^,or,^;72[34]4;^,or,^;72[34]4[0-9];^,or,^;728;^,or,^;728[0-9];^,or,^;728[0-9][0-9];^,or,^;729[12];^,or,^;729[12][0-9];^,or,^;7301;^,or,^;7301[0-9];^,or,^;73671;^,or,^;73689;^,or,^;740[012];^,or,^;740[012][0-9];^,or,^;74[12];^,or,^;74[12][0-9];^,or,^;74[12][0-9][0-9];^,or,^;7545[01];^,or,^;7553[135];^,or,^;7561[034579];^,or,^;7564;^,or,^;7564[0-9];^,or,^;7568[39];^,or,^;7807;^,or,^;7807[0-9];^,or,^;806;^,or,^;806[01236789];^,or,^;806[012389][0-9];^,or,^;806[67][345678];^,or,^;897[2-5];^,or,^;897[2-5][0-9];^,or,^;907[29];^,or,^;907[29][0-9];^,or,^;95200;^),or,(,^;270;^,or,^;270[0-9];^,or,^;271;^,or,^;271[0-9];^,or,^;2701;^,or,^;2701[0-9];^,or,^;2727;^,or,^;2727[0-9];^,or,^;2772;^,or,^;2772[0-9];^,or,^;299;^,or,^;299[0-9];^,or,^;299[0-9][0-9];^,or,^;31[789];^,or,^;31[789][0-9];^,or,^;31[789][0-9][0-9]

9];^,or,^;315[4589];^,or,^;330;^,or,^;330[0-9];^,or,^;33371;^,or,^;343;^,or,^;343[0-9];^,or,^;343[0-9][0-9];^,or,^;520;^,or,^;520[0-9];^,or,^;520[0-9][0-9];^,or,^;7548;^,or,^;7548[0-9];^,or,^;7551;^,or,^;7551[0-9];^,or,^;758;^,or,^;758[01235];^,or,^;758[01235][0-9];^,or,^;7583[1-9];^,or,^;759[57];^,or,^;759[57][0-9];^,or,^;7598[139];^,or,^;7607[17];^,or,^;43[01456];^,or,^;43[01456][0-9];^,or,^;43[01456][0-9][0-9];^,or,^;433[012389];^,or,^;99702;^,or,^;2904;^,or,^;29410;^,or,^;2941;^,or,^;2941[0-9];^,or,^;310;^,or,^;310[0-9];^,or,^;310[0-9][0-9];^,or,^;331;^,or,^;331[0-9];^,or,^;331[0-9][0-9];^,or,^;345;^,or,^;345[0-9];^,or,^;345[0-9][0-9];^,or,^;36816;^,or,^;7800[13];^,or,^;7846;^,or,^;78469;^,or,^;7845[129];^,or,^;907;^,or,^;907[0-9];^,or,^;907[0-9][0-9];^,or,^;ANDNOT, (^,800;^,or,^;800[0-9];^,or,^;800[0-9][0-9];^,or,^;8049;^,or,^;8049[0-9];^,or,^;850;^,or,^;850[0-9];^,or,^;850[0-9][0-9];^,or,^;8541;^,or,^;8541[0-9];^,or,^;31[245];^,or,^;3124;^,or,^;31[2345][0-9][0-9];^,or,^;31381;^,or,^;314[12];^,or,^;315[0-9];^,or,^;315[0-9][0-9];^,or,^;7813;^,or,^;78461;^,or,^;)

- ICD10

- (^,Z710;^,or,^;Z751;^,or,^;Z755;^,or,^;Z271;^,or,^;Z736;^,or,^;D333;^,or,^;G601;^,or,^;H81[04];^,or,^;H90[03-8];^,or,^;H90A[23];^,or,^;H91[02389];^,or,^;H9325;^,or,^;H933;^,or,^;Q16[0-9];^,or,^;Z9621;^,or,^;ANDNOT, (^,H66[012349];^,or,^;H612[0-3];^,or,^;C69;^,or,^;D31;^,or,^;E093;^,or,^;E133;^,or,^;E103;^,or,^;E113;^,or,^;G360;^,or,^;G453;^,or,^;G601;^,or,^;G902;^,or,^;H02[0-9][0-9][0-9];^,or,^;H023[0-9];^,or,^;H026[0-9];^,or,^;H0270;^,or,^;H0289;^,or,^;H029;^,or,^;H0430;^,or,^;H18[69];^,or,^;H201;^,or,^;H2[567];^,or,^;H3[0135];^,or,^;H442;^,or,^;H476;^,or,^;H49;^,or,^;H5[045];^,or,^;H53[0356];^,or,^;H534[1-9][1-9];^,or,^;H531[0123];^,or,^;Q1[0-5];^,or,^;ANDNOT, (^,H02829;^,or,^;H57;^,or,^;A81;^,or,^;E3431;^,or,^;E45;^,or,^;G041;^,or,^;G1[0123];^,or,^;G231;^,or,^;G24[1-9];^,or,^;G3[01256];^,or,^;G37[123489];^,or,^;G60[0389];^,or,^;G61[89];^,or,^;G65[12];^,or,^;G71[02];^,or,^;G7111;^,or,^;G8[123];^,or,^;G89[234];^,or,^;G901;^,or,^;G9611;^,or,^;I680;^,or,^;I690[3-6];^,or,^;I691[3-6];^,or,^;I692[3-6];^,or,^;I693[3-6];^,or,^;I698[3-6];^,or,^;I699[3-6];^,or,^;M0[568];^,or,^;M1[25-9];^,or,^;M21[89]0;^,or,^;M215[1-4];^,or,^;M2420;^,or,^;M357;^,or,^;M4[157];^,or,^;M469;^,or,^;M488;^,or,^;M513[4-7];^,or,^;M541;^,or,^;M60[128]0;^,or,^;M60[89];^,or,^;M60009;^,or,^;M61[014]0;^,or,^;M6159;^,or,^;M619;^,or,^;M62[0145]0;^,or,^;M623;^,or,^;M628[129];^,or,^;M62838;^,or,^;M72[01246];^,or,^;M79[127];^,or,^;M86[3456];^,or,^;M864;^,or,^;M865;^,or,^;M866;^,or,^;N250;^,or,^;Q0[0-7];^,or,^;Q6[678];^,or,^;Q7[123];^,or,^;Q7649;^,or,^;Q77[148];^,or,^;Q796;^,or,^;Q898;^,or,^;R5382;^,or,^;S1[24];^,or,^;S13113A;^,or,^;S220[0-8]9;^,or,^;S24[01];^,or,^;S34[01]__[AS];^,or,^;S343XXA;^,or,^;S78;^,or,^;Z736;^,or,^;Z740;^,or,^;Z89[014569];^,or,^;Z892[012];^,or,^;Z993;^,or,^;Z9989;^,or,^;Z740;^,or,^;E03[01];^,or,^;E70;^,or,^;E70[01234589];^,or,^;E70[2348][0-9];^,or,^;E70[3][0-9][0-9];^,or,^;E71;^,or,^;E71[012345];^,or,^;E71[1345][0-9];^,or,^;E71[345][0-9][0-9];^,or,^;E72;^,or,^;E72[0123459];^,or,^;E72[01258][0-9];^,or,^;E74;^,or,^;E74[012348];^,or,^;E74[01238][0-9];^,or,^;E748[0-9][0-9];^,or,^;E75;^,or,^;E75[0123456];^,or,^;E75[012][0-9];^,or,^;E752[0-9][0-9];^,or,^;E76;^,or,^;E76[012389];^,or,^;E76[02][0-9];^,or,^;E762[0-9][0-9];^,or,^;E77;^,or,^;E77[0-9];^,or,^;E787[12];^,or,^;E791;^,or,^;F7[0-9];^,or,^;F7[0-9][0-9];^,or,^;F78A;^,or,^;F78A[19];^,or,^;F8[489];^,or,^;F84[0-9];^,or,^;G3181;^,or,^;G80[0-9];^,or,^;M952;^,or,^;P043;^,or,^;Q04[0-9];^,or,^;Q67[678];^,or,^;Q68[01];^,or,^;Q70[49];^,or,^;Q70[0123][0123];^,or,^;Q743;^,or,^;Q767;^,or,^;Q851;^,or,^;Q86[01];^,or,^;Q87[1235];^,or,^;Q871[19];^,or,^;Q878[129];^,or,^;Q89

[78]^,or,^;Q90[0129]^,or,^;Q91[0-7]^,or,^;Q92[0125789]^,or,^;Q926[12]^,or,^;Q93[0123479]^,or,^;Q935[19]^,or,^;Q938[189]^,or,^;Q95[23]^,or,^;Q992^,or,^;R4183^,),or,(,^;G45[01289]^,or,^;G46^,or,^;G973[12]^,or,^;I6[013456]^,or,^;I678[49]^,or,^;I978[12]^,or,^;S0190XA^,or,^;S02[0123][0129X][0-9X][AB]^,or,^;S02[89][0-9X][0-9X][AB]^,or,^;S0211[GH][AB]^,or,^;S0212[129][DGKS]^,or,^;S024[0-9][0-9A-B][AB]^,or,^;S026[0-9][0-9X][AB]^,or,^;S028[345][129X][DGKS]^,or,^;S06[012]X[1-9][AB]^,or,^;S06[456]X[0-9]A^,or,^;S063[0-9][0-9]A^,or,^;S068[129][0-9]A^,or,^;S069X[0-9]A^,or,^;Z51.89^,or,^;A06A1^,or,^;F01^,or,^;F028[12]^,or,^;F03^,or,^;F05^,or,^;F070^,or,^;F078^,or,^;F482^,or,^;G13^,or,^;G20^,or,^;G21^,or,^;G30^,or,^;G31^,or,^;G318[12459]^,or,^;G40^,or,^;G454^,or,^;G90[A04589]^,or,^;G94^,or,^;G97[45]^,or,^;I67850^,or,^;I68858^,or,^;R40243^,or,^;R403^,or,^;R414^,or,^;R418[49]^,or,^;R470[0-2]^,or,^;R471^,or,^;R478[129]^,or,^;R479^,or,^;R48[1389]^,or,^;S04[0-9][0-9][0-9X]S^,or,^;S060-9][0-9X][0-9]S^,or,^;S06A0^,),or,(,^;F63[01239]^,or,^;F638[19]^,or,^;F80[01249]^,or,^;F808[129]^,or,^;F81[0249]^,or,^;F818[19]^,or,^;F82^,or,^;F90[0-9]^,or,^;F91[0-9]^,or,^;H9325^,or,^;R48[02]^,or,^;V400^,),or,(,^;R460^,or,^;Z593^,or,^;Z602^,or,^;Z73[68]^,or,^;Z74[123]^,or,^;Z7409^,or,^;Z710^,)

- SNOMED

- (,^;79471008;,or,^;427772009;,or,^;60700002;,or,^;229752008;,or,^;194424005;,or,^;61947007;,or,^;13445001;,or,^;359612003;,or,^;111339003;,or,^;15188001;,or,^;77507001;,or,^;194429000;,or,^;25362006;,or,^;15241006;,or,^;77949003;,or,^;188061000119100;,or,^;788953003;,or,^;38403006;,or,^;95820000;,or,^;126949007;,or,^;95821001;,or,^;20425006;,),ANDNOT,(,^;18070006;,or,^;65363002;,),or,(,^;193638002;,or,^;78455002;,or,^;24982008;,or,^;83275001;,or,^;12184005;,or,^;367469000;,or,^;65194006;,or,^;193699007;,or,^;218951000119100;,or,^;193722001;,or,^;267727004;,or,^;105597003;,or,^;193745007;,or,^;193731001;,or,^;371481006;,or,^;92068002;,or,^;25093002;,or,^;35387008;,or,^;19620000;,or,^;35387008;,or,^;19620000;,or,^;267611002;,or,^;35210752;,or,^;39450006;,or,^;32022003;,or,^;15250008;,or,^;60113004;,or,^;85777005;,or,^;65636009;,or,^;25044007;,or,^;22066006;,or,^;400942002;,or,^;128327004;,or,^;33521009;,or,^;429448005;,or,^;24010005;,or,^;10810001;,or,^;19416009;,or,^;10810001;,or,^;19416009;,or,^;204113001;,or,^;128534003;,or,^;88032003;,or,^;230659005;,or,^;46627006;,or,^;77971008;,or,^;128329001;,or,^;267664003;,or,^;25362006;,or,^;764939004;,or,^;93764002;,or,^;92070006;,or,^;5368009;,or,^;193329008;,or,^;193570009;,or,^;58882000;,or,^;128468007;,or,^;93766000;,or,^;128468007;,or,^;93766000;,or,^;92321003;,or,^;739681000;,or,^;38599001;,or,^;7183006;,or,^;61142002;,or,^;93181004;,or,^;93987004;,or,^;92059004;,or,^;422099009;,or,^;193338005;,or,^;93755007;,or,^;92060009;,or,^;34711008;,or,^;93756008;,or,^;92169007;,or,^;42059000;,or,^;371993008;,or,^;187906008;,or,^;371993008;,or,^;187906008;,or,^;109948008;,or,^;371986009;,or,^;92258000;,or,^;92097004;,),or,(,^;105501005;,or,^;1148757008;,or,^;125606003;,or,^;128605003;,or,^;129565002;,or,^;15241006;,or,^;15758002;,or,^;1576173;,or,^;1576311;,or,^;15802004;,or,^;16269008;,or,^;17230005;,or,^;193180002;,or,^;193250002;,or,^;197663003;,or,^;201789001;,or,^;201796004;,or,^;203082005;,or,^;20484008;,or,^;212355006;,or,^;212357003;,or,^;212359000;,or,^;23685000;,or,^;239791005;,or,^;239792003;,or,^;239805001;,or,^;239872002;,or,^;239920006;,or,^;24700007;,or,^;254749001;,or,^;26889001;,or,^;26889001;,or,^;276654001;,or,^;29426003;,or,^;298382003;,or,^;302297009;,or,^;315271000119104;,or,^;33209009;,or,^;363302008;,or,^;36427004;,or,^;371082009;,or,^;372109003;,or,^;373621006;,or,^;386033004;,or,^;396275006;,or,^;398100001;,or,^;39912006;,or,^;399269003;,or,^;400054000;,or,^;410795001;,or,^;410797009;,or,^;417373000;,or,^;441960006;,or,^;44551007;,or,^;47032000;,or,^;52702003;,or,^;55999004;,or,^;57148006;,or,^;57160007

^,or,^;60168000;^,or,^;609557004;^,or,^;6118003;^,or,^;65354004;^,or,^;67531005;^,or,^;68962001;^,or,^;69896004;^,or,^;72274001;^,or,^;72274001;^,or,^;73573004;^,or,^;737303004;^,or,^;74257000;^,or,^;74391003;^,or,^;74877002;^,or,^;75047002;^,or,^;76886005;^,or,^;77595004;^,or,^;78373000;^,or,^;82423001;^,or,^;84017003;^,or,^;85551004;^,or,^;86044005;^,or,^;88425004;^,or,^;8847002;^,or,^;928000;^,or,^;95860004;^,or,^;9631008;^,or,^;98921000119102;^),or,(^;1855002;^,or,^;7199000;^,or,^;7573000;^,or,^;8447006;^,or,^;10406007;^,or,^;16652001;^,or,^;17122004;^,or,^;17760001;^,or,^;20415001;^,or,^;23560001;^,or,^;31216003;^,or,^;34111000;^,or,^;35919005;^,or,^;40700009;^,or,^;40930008;^,or,^;42012007;^,or,^;43929004;^,or,^;48637007;^,or,^;57148006;^,or,^;58193001;^,or,^;58459009;^,or,^;59033006;^,or,^;61152003;^,or,^;66091009;^,or,^;68528007;^,or,^;68618008;^,or,^;70156005;^,or,^;70173007;^,or,^;71961003;^,or,^;74345006;^,or,^;75019001;^,or,^;75511006;^,or,^;76880004;^,or,^;77287004;^,or,^;82354003;^,or,^;86765009;^,or,^;110359009;^,or,^;111246005;^,or,^;111270009;^,or,^;128188000;^,or,^;190794006;^,or,^;192562009;^,or,^;192782005;^,or,^;205615000;^,or,^;205616004;^,or,^;205619006;^,or,^;205620000;^,or,^;205623003;^,or,^;205624009;^,or,^;205627002;^,or,^;205636003;^,or,^;205660004;^,or,^;205666005;^,or,^;205673000;^,or,^;205674006;^,or,^;205720009;^,or,^;205788004;^,or,^;205791004;^,or,^;205808005;^,or,^;205812004;^,or,^;238028008;^,or,^;254041007;^,or,^;254264002;^,or,^;254266000;^,or,^;254268004;^,or,^;254269007;^,or,^;254270008;^,or,^;254272000;^,or,^;254274004;^,or,^;267431006;^,or,^;268674003;^,or,^;270520003;^,or,^;270521004;^,or,^;274908005;^,or,^;276654001;^,or,^;278512001;^,or,^;297231002;^,or,^;373413006;^,or,^;391987005;^,or,^;396338004;^,or,^;400038003;^,or,^;408856003;^,or,^;409709004;^,or,^;444655009;^,or,^;471282000;^,or,^;767263007;^,or,^;770414008;^,or,^;1010276004;^,or,^;367041000119108;^,or,^;813921000000104;^),or,(^;29164008;^,or,^;25762009;^,or,^;271721006;^,or,^;26929004;^,or,^;79631006;^,or,^;19598007;^,or,^;278510009;^,or,^;407675009;^,or,^;230390002;^,or,^;84757009;^,or,^;241006;^,or,^;6204001;^,or,^;270907008;^,or,^;195230003;^,or,^;195190007;^,or,^;195186005;^,or,^;195189003;^,or,^;42341009;^,or,^;432504007;^,or,^;230692004;^,or,^;62914000;^,or,^;195185009;^,or,^;116224001;^,or,^;29157100119106;^,or,^;195155004;^,or,^;195160000;^,or,^;195233001;^,or,^;195235008;^,or,^;195232006;^,or,^;20059004;^,or,^;195234007;^,or,^;230698000;^,or,^;266257000;^,or,^;473459007;^,or,^;230699008;^,or,^;230700009;^,or,^;210038008;^,or,^;223176004;^,or,^;262693007;^,or,^;82999001;^,or,^;127296001;^,or,^;212141007;^,or,^;17769000;^,or,^;36217008;^,or,^;40425004;^,or,^;432776007;^,or,^;230763008;^,or,^;274100004;^,or,^;450410005;^,or,^;262955000;^,or,^;209987007;^,or,^;102891000;^,or,^;362975008;^,or,^;2776000;^,or,^;191519005;^,or,^;80690008;^,or,^;230270009;^,or,^;81308009;^,or,^;238153009;^,or,^;52448006;^,or,^;429998004;^,or,^;95640005;^,or,^;4223005;^,or,^;230292008;^,or,^;49049000;^,or,^;19972008;^,or,^;230296006;^,or,^;312991009;^,or,^;242995009;^,or,^;230736007;^,or,^;386806002;^,or,^;32422007;^,or,^;384821006;^,or,^;409083006;^,or,^;129618003;^,or,^;128200000;^,or,^;86489003;^,or,^;15241006;^,or,^;135761000119101;^,or,^;386557006;^),or,(^;1855002;^,or,^;22181003;^,or,^;25766007;^,or,^;45677003;^,or,^;47916000;^,or,^;68345001;^,or,^;106170009;^,or,^;161129001;^,or,^;192136006;^,or,^;229719002;^,or,^;229733002;^,or,^;229751001;^,or,^;268672004;^,or,^;268674003;^,or,^;280032002;^,or,^;281016006;^,or,^;441719005;^,or,^;288271000119103;^,or,^;31177006;^,or,^;406506008;^,or,^;7461003;^,or,^;35253001;^,or,^;66347000;^,or,^;430909002;^,or,^;231540008;^,or,^;40987004;^,or,^;69361009;^,or,^;18941000;^,or,^;18085000;^,or,^;600009;^,or,^;17155009;^,or,^;48826008;^,or,^;17961008;^),or,(^;413298002;^,or,^;288521000119101;^,or,^;15936341000119100;^,or,^;15936341000119106;^,or,^;105507009;^,or,^;410428008;^,or,^;271437004;^,or,^;15929301000119104;^,or,^;160685001;^,or,^;281694009;^)

- All together

- (^;Z710^,or,^;Z751^,or,^;Z755^,or,^;Z271^,or,^;Z736^,or,^disabled^,or,^disabilit^,or,^limitation^,or,(^,(^service^,or,^guide^),AND,(^animal^,or,^dog^,or,^horse^),),or,(^needs^,

or,^requires^,or,^asked
for^,),AND,(,^accommodations^,or,^accomondations^,or,^accomodations^,or,^accessibl
e^,)),or,^ADA require^,or,^handicap^,or,^auxiliary aid^,or,(, (^disability
determination^,or,^percent^),AND,((^disabled^,or,^function^,or,^disability
rating^,)),or,((^assistive^),AND,((^device^,or,^technology^,or,^equipment^,)), ^measur
ed restrictions and limitations^,or,^accessib^,or,^handicap^,or,^artificial
limb^,ANDNOT,((^not disab^,or,^no disab^,or,^denies disab^,or,^no
limitation^,or,^without limitation^,)),or,((^389^,or,^389[278]^,or,^389[1][0-
9]^,or,^38906^,or,^2251^,or,^2251[0-9]^,or,^31523^,or,^3563^,or,^3563[0-
9]^,or,^386[02]^,or,^386[02][0-9]^,or,^388[2589]^,or,^388[2589][0-
9]^,or,^38811^,or,^744^,or,^744[0-9]^,or,^744[0-9][0-
9]^,or,^D333^,or,^G601^,or,^H81[04]^,or,^H90[03-
8]^,or,^H90A[23]^,or,^H91[02389]^,or,^H9325^,or,^H933^,or,^Q16[0-
9]^,or,^Z9621^,or,^79471008^,or,^427772009^,or,^60700002^,or,^229752008^,or,
^194424005^,or,^61947007^,or,^13445001^,or,^359612003^,or,^111339003^,or,^15188001^,or,^77507001^,or,^194429000^,or,^25362006^,or,^15241006^,or,^77
949003^,or,^188061000119100^,or,^788953003^,or,^38403006^,or,^95820000^,or,
^126949007^,or,^95821001^,or,^20425006^,or,((^deaf^,or,^hearing impair^,or,^sign
language^,or,!ASL!,or,^D
HH^,or,((^trouble^,or,^hard^,or,^difficulty^,or,^impair^,or,^problem^,or,^loss^,or,^reduced
^),AND,((^hear^,)),),ANDNOT,((^380.4^,or,^382[0-9]^,or,^H66[012349]^,or,^H612[0-
3]^,or,^18070006^,or,^65363002^,or,^ear infection^,or,^impacted
cerumen^,or,((^voices^,or,^sound^,or,^noise^,or,^scream^,or,^cry^,or,^pop^,or,^wheez
^,or,^cough^),AND,((^hear^,)),or,^heart^,or,^hear for
dialysis^,or,((^denie^,or,^deny^,or,^no^),AND,((^hear^),AND,((^loss^,or,^problem^,)),),
,),or,((^190^,or,^224^,or,^250^,or,^3563^,or,^36[01234679]^,or,^3684[1-
7]^,or,^37[0145678]^,or,^379[35]^,or,^743^,or,^190[0-9]^,or,^224[0-9]^,or,^2505[0-
3]^,or,^3563^,or,^36[01234679]^,or,^36[01234679][0-9]^,or,^3684[0-
7]^,or,^37[0145678][0-9]^,or,^3793[123459]^,or,^379[5]^,or,^743[0-9]^,or,^743[0-
9][0-
9]^,or,^C69^,or,^D31^,or,^E093^,or,^E133^,or,^E103^,or,^E113^,or,^G360^,or,^G4
53^,or,^G601^,or,^G902^,or,^H02[0-9][0-9][0-9]^,or,^H023[0-9]^,or,^H026[0-
9]^,or,^H0270^,or,^H0289^,or,^H029^,or,^H0430^,or,^H18[69]^,or,^H201^,or,^H2[56
7]^,or,^H3[0135]^,or,^H442^,or,^H476^,or,^H49^,or,^H5[045]^,or,^H53[0356]^,or,^H
534[1-9][1-9]^,or,^H531[0123]^,or,^Q1[0-
5]^,or,^193638002^,or,^78455002^,or,^24982008^,or,^83275001^,or,^12184005^,or,
or,^367469000^,or,^65194006^,or,^193699007^,or,^218951000119100^,or,^19372
2001^,or,^267727004^,or,^105597003^,or,^193745007^,or,^193731001^,or,^3714
81006^,or,^92068002^,or,^25093002^,or,^35387008^,or,^19620000^,or,^3538700
8^,or,^19620000^,or,^267611002^,or,^35210752^,or,^39450006^,or,^32022003^,or,
or,^15250008^,or,^60113004^,or,^85777005^,or,^65636009^,or,^25044007^,or,^2
20660006^,or,^400942002^,or,^128327004^,or,^33521009^,or,^429448005^,or,^2
4010005^,or,^10810001^,or,^19416009^,or,^10810001^,or,^19416009^,or,^20411
3001^,or,^128534003^,or,^88032003^,or,^230659005^,or,^46627006^,or,^779710
08^,or,^128329001^,or,^267664003^,or,^25362006^,or,^764939004^,or,^9376400
2^,or,^92070006^,or,^5368009^,or,^193329008^,or,^193570009^,or,^58882000^,or,
or,^128468007^,or,^93766000^,or,^128468007^,or,^93766000^,or,^92321003^,or,
^739681000^,or,^38599001^,or,^7183006^,or,^61142002^,or,^93181004^,or,^93
987004^,or,^92059004^,or,^422099009^,or,^193338005^,or,^93755007^,or,^9206
0009^,or,^34711008^,or,^93756008^,or,^92169007^,or,^42059000^,or,^37199300
8^,or,^187906008^,or,^371993008^,or,^187906008^,or,^109948008^,or,^3719860
09^,or,^92258000^,or,^92097004^,or,^vision impair^,or,^brail^,or,^large
print^,or,^vision
device^,or,((^trouble^,or,^hard^,or,^difficulty^,or,^impair^,or,^problem^,or,^loss^,or,^red
uced^,or,^low^),AND,((^vision^,or,^blind^,or,^blindness^,or,^seeing^,or,^sight^,)),ANDN
OT,((^37484^,or,^H02829^,or,^H57^,or,^supervision^,or,^seeing

care^,or,^migraines^,or,^blurry vision^,or,^blurred vision^,or,^visual
disturbance^,or,(, (^stars^,or,^blood^,or,^people^,or,^faces^,or,^lights^,or,^flashing
light^),AND,^seeing^),or,(, (^black^),AND,(, ^dots^,or,^spots^),),or,(, (^denie^,or,^deny
^,or,^no^),AND,(, ^vision^,or,^eye^,or,^sight^,or,^seeing^),AND,(, ^loss^,or,^problem^,
,),),),or,(, ^046^,or,^046[0-9]^,or,^046[0-9][0-9]^,or,^2533^,or,^2533[0-
9]^,or,^2594^,or,^2594[0-9]^,or,^2632^,or,^2632[0-9]^,or,^2700^,or,^2700[0-
9]^,or,^27739^,or,^3239^,or,^3239[0-9]^,or,^3308^,or,^3308[0-9]^,or,^331[0126-
9]^,or,^331[0126-9][0-9]^,or,^333[046]^,or,^333[046][0-
9]^,or,^3337[29]^,or,^3338[12359]^,or,^334[012389]^,or,^334[012389][0-
9]^,or,^335^,or,^335[0-9]^,or,^335[0-9][0-9]^,or,^338[234]^,or,^338[234][0-
9]^,or,^34[0124]^,or,^34[0124][0-9]^,or,^34[0124][0-9][0-
9]^,or,^34939^,or,^356[01248]^,or,^356[01248][0-
9]^,or,^357[349]^,or,^357[349][0-9]^,or,^35789^,or,^35789[0-
9]^,or,^359^,or,^359[0-9]^,or,^359[0-9][0-9]^,or,^438[2345]^,or,^438[2345][0-
9]^,or,^5880^,or,^5880[0-9]^,or,^714[0-49]^,or,^714[0-49][0-
9]^,or,^71489^,or,^715^,or,^715[0-9]^,or,^715[0-9][0-
9]^,or,^720[09]^,or,^720[09][0-9]^,or,^721[01239]^,or,^721[01239][0-
9]^,or,^722[56]^,or,^722[56][0-9]^,or,^72[34]4^,or,^72[34]4[0-
9]^,or,^728^,or,^728[0-9]^,or,^728[0-9][0-9]^,or,^729[12]^,or,^729[12][0-
9]^,or,^7301^,or,^7301[0-
9]^,or,^73671^,or,^73689^,or,^740[012]^,or,^740[012][0-
9]^,or,^74[12]^,or,^74[12][0-9]^,or,^74[12][0-9][0-
9]^,or,^7545[01]^,or,^7553[135]^,or,^7561[03459]^,or,^7564^,or,^7564[0-
9]^,or,^7568[39]^,or,^7807^,or,^7807[0-
9]^,or,^806^,or,^806[01236789]^,or,^806[012389][0-
9]^,or,^806[67][345678]^,or,^897[2-5]^,or,^897[2-5][0-
9]^,or,^907[29]^,or,^907[29][0-
9]^,or,^95200^,or,^A81^,or,^E3431^,or,^E45^,or,^G1[0123]^,or,^G231^,or,^G24[1-
9]^,or,^G3[01256]^,or,^G37[123489]^,or,^G60[0389]^,or,^G61[89]^,or,^G65[12]^,or,^
G71[02]^,or,^G7111^,or,^G8[123]^,or,^G89[234]^,or,^G901^,or,^G9611^,or,^I680^,or
,^I690[3-6]^,or,^I691[3-6]^,or,^I692[3-6]^,or,^I693[3-6]^,or,^I698[3-6]^,or,^I699[3-
6]^,or,^M0[568]^,or,^M1[25-9]^,or,^M21[89]0^,or,^M215[1-
4]^,or,^M2420^,or,^M357^,or,^M4[157]^,or,^M469^,or,^M488^,or,^M513[4-
7]^,or,^M541^,or,^M60[128]0^,or,^M60[89]^,or,^M60009^,or,^M61[014]0^,or,^M6159
^,or,^M619^,or,^M62[0145]0^,or,^M623^,or,^M628[129]^,or,^M62838^,or,^M72[0124
6]^,or,^M79[127]^,or,^M86[3456]^,or,^M864^,or,^M865^,or,^M866^,or,^N250^,or,^Q
0[0-
7]^,or,^Q6[678]^,or,^Q7[123]^,or,^Q7649^,or,^Q77[148]^,or,^Q796^,or,^Q898^,or,^
R5382^,or,^S1[24]^,or,^S13113A^,or,^S220[0-
8]9^,or,^S24[01]^,or,^S34[01]__[AS]^,or,^S343XXA^,or,^S78^,or,^Z736^,or,^Z740^,
or,^Z89[014569]^,or,^Z892[012]^,or,^Z993^,or,^Z9989^,or,^Z740^,or,^105501005^,o
r,^1148757008^,or,^125606003^,or,^128605003^,or,^129565002^,or,^15241006^,
or,^15758002^,or,^1576173^,or,^1576311^,or,^15802004^,or,^16269008^,or,^17
230005^,or,^193180002^,or,^193250002^,or,^197663003^,or,^201789001^,or,^20
1796004^,or,^203082005^,or,^20484008^,or,^212355006^,or,^212357003^,or,^21
2359000^,or,^23685000^,or,^239791005^,or,^239792003^,or,^239805001^,or,^23
9872002^,or,^239920006^,or,^24700007^,or,^254749001^,or,^26889001^,or,^268
89001^,or,^276654001^,or,^29426003^,or,^298382003^,or,^302297009^,or,^3152
71000119104^,or,^33209009^,or,^363302008^,or,^36427004^,or,^371082009^,or,^
372109003^,or,^373621006^,or,^386033004^,or,^396275006^,or,^398100001^,or,^
39912006^,or,^399269003^,or,^400054000^,or,^410795001^,or,^410797009^,or,^
417373000^,or,^441960006^,or,^44551007^,or,^47032000^,or,^52702003^,or,^55
999004^,or,^57148006^,or,^57160007^,or,^60168000^,or,^609557004^,or,^61180
03^,or,^65354004^,or,^67531005^,or,^68962001^,or,^69896004^,or,^72274001^,
or,^72274001^,or,^73573004^,or,^737303004^,or,^74257000^,or,^74391003^,or,^
74877002^,or,^75047002^,or,^76886005^,or,^77595004^,or,^78373000^,or,^824

23001;^,or,^;84017003;^,or,^;85551004;^,or,^;86044005;^,or,^;88425004;^,or,^;8847002
;^,or,^;928000;^,or,^;95860004;^,or,^;9631008;^,or,^;98921000119102;^,or,^paralyzed^,
or,^hoyer lift^,or,^patient lift^,or,(,^trouble^,or,^hard^,or,^difficulty^,or,^partial
difficulty^,or,^impair^,or,^problems^,or,^loss^,or,^reduced^,or,^low^,or,^limited^),AND,(
^mobility^,or,^walking^,or,^climbing stairs^,or,^changing body position^,or,^fine hand
use^,or,^lifting and carrying objects^,or,^hand and arm use^,or,^moving
around^,or,^using transportation^,or,^moving^,or,^transferring self^,or,^performing
manual
tasks^),),or,(^wheelchair^,AND,(^user^,or,^bound^,or,^confined^),),or,^motorized
wheelchair^,or,^motorized mobility^,or,^own wheelchair^,or,^owl
wheelchair^,or,(^inability to
move^,AND,(^arm^,or,^leg^,or,^upper^,or,^lower,^hand^,or,^head^),),ANDNOT,(^S43
109^,or,^;S43004^,or,^;S43409^,or,^;M7910^,or,^;M62838^,or,^;M628^,or,^chills^,or,^fe
ver^,or,^generalized body aches^,or,^cellulitis^,or,^muscle weakness^,or,^arrives
walking with normal gait^,or,^while climbing stairs^,or,^after climbing
stairs^,or,(^sprain^,AND,(^ankle^,or,^shoulder^,or,^wrist^,or,^knee^,or,^thumb^),),),or
,(^;270;^,or,^;270[0-9];^,or,^;271;^,or,^;271[0-9];^,or,^;2701;^,or,^;2701[0-
9];^,or,^;2727;^,or,^;2727[0-9];^,or,^;2772;^,or,^;2772[0-9];^,or,^;299;^,or,^;299[0-
9];^,or,^;299[0-9][0-9];^,or,^;31[789];^,or,^;31[789][0-9];^,or,^;31[789][0-9][0-
9];^,or,^;315[4589];^,or,^;330;^,or,^;330[0-9];^,or,^;33371;^,or,^;343;^,or,^;343[0-
9];^,or,^;343[0-9][0-9];^,or,^;520;^,or,^;520[0-9];^,or,^;520[0-9][0-
9];^,or,^;7548;^,or,^;7548[0-9];^,or,^;7551;^,or,^;7551[0-
9];^,or,^;758;^,or,^;758[01235];^,or,^;758[01235][0-9];^,or,^;7583[1-
9];^,or,^;759[57];^,or,^;759[57][0-
9];^,or,^;7598[139];^,or,^;7607[17];^,or,^;E03[01]^,or,^;E70^,or,^;E70[01234589]^,or,^;E7
0[2348][0-9]^,or,^;E70[3][0-9][0-9]^,or,^;E71^,or,^;E71[012345]^,or,^;E71[1345][0-
9]^,or,^;E71[345][0-9][0-9]^,or,^;E72^,or,^;E72[0123459]^,or,^;E72[01258][0-
9]^,or,^;E74^,or,^;E74[012348]^,or,^;E74[01238][0-9]^,or,^;E748[0-9][0-
9]^,or,^;E75^,or,^;E75[0123456]^,or,^;E75[012][0-9]^,or,^;E752[0-9][0-
9]^,or,^;E76^,or,^;E76[012389]^,or,^;E76[02][0-9]^,or,^;E762[0-9][0-
9]^,or,^;E77^,or,^;E77[0-9]^,or,^;E787[12]^,or,^;E791^,or,^;F7[0-9]^,or,^;F7[0-9][0-
9]^,or,^;F78A^,or,^;F78A[19]^,or,^;F8[489]^,or,^;F84[0-9]^,or,^;G3181^,or,^;G80[0-
9]^,or,^;M952^,or,^;P043^,or,^;Q04[0-
9]^,or,^;Q67[678]^,or,^;Q68[01]^,or,^;Q70[49]^,or,^;Q70[0123][0123]^,or,^;Q743^,or,^;Q
767^,or,^;Q851^,or,^;Q86[01]^,or,^;Q87[1235]^,or,^;Q871[19]^,or,^;Q878[129]^,or,^;Q89
[78]^,or,^;Q90[0129]^,or,^;Q91[0-
7]^,or,^;Q92[0125789]^,or,^;Q926[12]^,or,^;Q93[0123479]^,or,^;Q935[19]^,or,^;Q938[18
9]^,or,^;Q95[23]^,or,^;Q992^,or,^;R4183^,or,^;1855002;^,or,^;7199000;^,or,^;7573000;^,
or,^;8447006;^,or,^;10406007;^,or,^;16652001;^,or,^;17122004;^,or,^;17760001;^,or,^;2
0415001;^,or,^;23560001;^,or,^;31216003;^,or,^;34111000;^,or,^;35919005;^,or,^;40700
009;^,or,^;40930008;^,or,^;42012007;^,or,^;43929004;^,or,^;48637007;^,or,^;57148006;
^,or,^;58193001;^,or,^;58459009;^,or,^;59033006;^,or,^;61152003;^,or,^;66091009;^,or,
^;68528007;^,or,^;68618008;^,or,^;70156005;^,or,^;70173007;^,or,^;71961003;^,or,^;74
345006;^,or,^;75019001;^,or,^;75511006;^,or,^;76880004;^,or,^;77287004;^,or,^;823540
03;^,or,^;86765009;^,or,^;110359009;^,or,^;111246005;^,or,^;111270009;^,or,^;1281880
00;^,or,^;190794006;^,or,^;192562009;^,or,^;192782005;^,or,^;205615000;^,or,^;205616
004;^,or,^;205619006;^,or,^;205620000;^,or,^;205623003;^,or,^;205624009;^,or,^;20562
7002;^,or,^;205636003;^,or,^;205660004;^,or,^;205666005;^,or,^;205673000;^,or,^;2056
74006;^,or,^;205720009;^,or,^;205788004;^,or,^;205791004;^,or,^;205808005;^,or,^;205
812004;^,or,^;238028008;^,or,^;254041007;^,or,^;254264002;^,or,^;254266000;^,or,^;25
4268004;^,or,^;254269007;^,or,^;254270008;^,or,^;254272000;^,or,^;254274004;^,or,^;2
67431006;^,or,^;268674003;^,or,^;270520003;^,or,^;270521004;^,or,^;274908005;^,or,^;
276654001;^,or,^;278512001;^,or,^;297231002;^,or,^;373413006;^,or,^;391987005;^,or,
^;396338004;^,or,^;400038003;^,or,^;408856003;^,or,^;409709004;^,or,^;444655009;^,or,
^;471282000;^,or,^;767263007;^,or,^;770414008;^,or,^;1010276004;^,or,^;3670410001
19108;^,or,^;813921000000104;^,or,(,^development^,or,^intellectual^),AND,(^delay^,

or,^disorder^,or,^disability^,),or,(, (^down^),AND,(^syndrome^),),or,^cerebral palsy^,or,^autism^,or,^adaptive neurological modifications^),or,(, (^43[01456];^,or,^43[01456][0-9];^,or,^43[01456][0-9][0-9];^,or,^433[012389];^,or,^99702;^,or,^2904;^,or,^29410;^,or,^2941;^,or,^2941[0-9];^,or,^310;^,or,^310[0-9];^,or,^310[0-9][0-9];^,or,^331;^,or,^331[0-9];^,or,^331[0-9][0-9];^,or,^345;^,or,^345[0-9];^,or,^345[0-9][0-9];^,or,^36816;^,or,^7800[13];^,or,^7846;^,or,^78469;^,or,^7845[129];^,or,^907;^,or,^907[0-9];^,or,^907[0-9][0-9];^,or,^G45[01289]^,or,^G46^,or,^G973[12]^,or,^I6[013456]^,or,^I678[49]^,or,^I978[12]^,or,^S0190XA^,or,^S02[0123][0129X][0-9X][AB]^,or,^S02[89][0-9X][0-9X][AB]^,or,^S0211[GH][AB]^,or,^S0212[129][DGKS]^,or,^S024[0-9][0-9A-B][AB]^,or,^S026[0-9][0-9X][AB]^,or,^S028[345][129X][DGKS]^,or,^S06[012]X[1-9][AB]^,or,^S06[456]X[0-9]A^,or,^S063[0-9][0-9]A^,or,^S068[129][0-9]A^,or,^S069X[0-9]A^,or,^Z51.89^,or,^A06A1^,or,^F01^,or,^F028[12]^,or,^F03^,or,^F05^,or,^F070^,or,^F078^,or,^F482^,or,^G13^,or,^G20^,or,^G21^,or,^G30^,or,^G31^,or,^G318[12459]^,or,^G40^,or,^G454^,or,^G90[A04589]^,or,^G94^,or,^G97[45]^,or,^I67850^,or,^I68858^,or,^R40243^,or,^R403^,or,^R414^,or,^R418[49]^,or,^R470[0-2]^,or,^R471^,or,^R478[129]^,or,^R479^,or,^R48[1389]^,or,^S04[0-9][0-9][0-9X]S^,or,^S060-9][0-9X][0-9]S^,or,^S06A0^,or,^29164008;^,or,^25762009;^,or,^271721006;^,or,^26929004;^,or,^79631006;^,or,^19598007;^,or,^278510009;^,or,^407675009;^,or,^230390002;^,or,^84757009;^,or,^241006;^,or,^6204001;^,or,^270907008;^,or,^195230003;^,or,^195190007;^,or,^195186005;^,or,^195189003;^,or,^42341009;^,or,^432504007;^,or,^230692004;^,or,^62914000;^,or,^195185009;^,or,^116224001;^,or,^291571000119106;^,or,^195155004;^,or,^195160000;^,or,^195233001;^,or,^195235008;^,or,^195232006;^,or,^20059004;^,or,^195234007;^,or,^230698000;^,or,^266257000;^,or,^473459007;^,or,^230699008;^,or,^230700009;^,or,^210038008;^,or,^223176004;^,or,^262693007;^,or,^82999001;^,or,^127296001;^,or,^212141007;^,or,^17769000;^,or,^36217008;^,or,^40425004;^,or,^432776007;^,or,^230763008;^,or,^274100004;^,or,^450410005;^,or,^262955000;^,or,^209987007;^,or,^102891000;^,or,^362975008;^,or,^2776000;^,or,^191519005;^,or,^80690008;^,or,^230270009;^,or,^81308009;^,or,^238153009;^,or,^52448006;^,or,^429998004;^,or,^95640005;^,or,^4223005;^,or,^230292008;^,or,^49049000;^,or,^19972008;^,or,^230296006;^,or,^312991009;^,or,^242995009;^,or,^230736007;^,or,^386806002;^,or,^32422007;^,or,^384821006;^,or,^409083006;^,or,^129618003;^,or,^128200000;^,or,^86489003;^,or,^15241006;^,or,^135761000119101;^,or,^386557006;^),or,^senile^,or,^alz[h[eil]ie]mer^,or,^dementia^,or,(, (^trouble^,or,^hard^,or,^difficult^,or,^impaired^,or,^problems^,or,^deficit^),AND,(^concentrat^,or,^memory^,or,^cognitive^,or,^cognition^),),or,^adaptive neurological modifications^,or,^central nervous system disorder^,or,^CNS disorder^),ANDNOT,((^800;^,or,^800[0-9];^,or,^800[0-9][0-9];^,or,^8049;^,or,^8049[0-9];^,or,^850;^,or,^850[0-9];^,or,^850[0-9][0-9];^,or,^8541;^,or,^8541[0-9];^,or,^General weakness^,or,^headache^,or,^fever^,or,^abdominal pain^,or,^minor complaints not otherwise specified^),),or,((^31[245];^,or,^3124;^,or,^31[2345][0-9][0-9];^,or,^31381;^,or,^314[12];^,or,^315[0-9];^,or,^315[0-9][0-9];^,or,^7813;^,or,^78461;^,or,^F63[01239]^,or,^F638[19]^,or,^F80[01249]^,or,^F808[129]^,or,^F81[0249]^,or,^F818[19]^,or,^F82^,or,^F90[0-9]^,or,^F91[0-9]^,or,^H9325^,or,^R48[02]^,or,^V400^,or,^1855002;^,or,^22181003;^,or,^25766007;^,or,^45677003;^,or,^47916000;^,or,^68345001;^,or,^106170009;^,or,^161129001;^,or,^192136006;^,or,^229719002;^,or,^229733002;^,or,^229751001;^,or,^268672004;^,or,^268674003;^,or,^280032002;^,or,^281016006;^,or,^441719005;^,or,^28827100119103;^,or,^31177006;^,or,^406506008;^,or,^7461003;^,or,^35253001;^,or,^66347000;^,or,^430909002;^,or,^231540008;^,or,^40987004;^,or,^69361009;^,or,^18941000;^,or,^18085000;^,or,^600009;^,or,^17155009;^,or,^48826008;^,or,^17961008;^,or,^non verbal^,or,^hard to understand^,or,^difficulty finding words^,or,(, (^trouble^,or,^hard^,or,^difficulty^,or,^impaired^,or,^problems^,or,^reduced^),AND,((^learning^,or,^speech^,or,^speech development^,or,^language^,or,^language

development^,or,^motor
function^,or,^communicat^,),),or,(, (^learning^,or,^speech^,or,^language^,),AND,((^difficu
lty^,or,^difficulties^,or,^disorder^,or,^delay^,or,^disability^,)),ANDNOT,((^clear
speech^,or,^Does not speak English^,or,^Hard to swallow^,or,^Respiratory
distress^,or,^Language barrier^,or,^Primary language^,or,^PTS disorder^,or,^speech
clear^,or,^Vision impaired^,or,^Vision Problems^,or,^Will not
speak^,or,((^denie^,or,^deny^,or,^no^,)),AND,((^difficult speech^,or,^speech
difficulty^,or,^difficulty breathing^,or,^difficulty seeing^,or,^difficulty swallow^,or,^Difficulty
walking^,or,^motor function^,or,^slurred
speech^,)),),),or,((^R460^,or,^Z593^,or,^Z602^,or,^Z73[68]^,or,^Z74[123]^,or,^Z740
9^,or,^Z710^,or,^413298002^,or,^288521000119101^,or,^15936341000119100^,or,
^15936341000119106^,or,^105507009^,or,^410428008^,or,^271437004^,or,^1592
9301000119104^,or,^160685001^,or,^281694009^,or,((^trouble^,or,^hard^,or,^diffi
culty^,or,^impair^,or,^problems^,or,^deficit^,or,^unable^,or,^failure^,or,^concern^,or,^poo
r^,)),AND,((^looking after self^,or,^managing medications^,or,^managing
meds^,or,^dressing^,or,^caring for body parts^,or,^bathing^,or,^doing
housework^,or,^preparing meals^,or,^self care^,or,^selfcare^,or,^taking
care^,or,^domestic life activities^,or,^washing^,or,^assisting others^,or,^caring for
household^,or,^toileting^,or,^performing manual tasks^,or,^performing tasks^,or,^life
management^,or,^living alone^,or,^residential institution^,or,^getting around inside
home^,or,!ADL!,or,^housework^,)),),or,((^need^,or,^require^,or,^depend^,)),AND,((^assis
tance^,or,^supervision^,or,^caregiver^,or,^caretaker^,or,^on
others^,or,^attendant^,or,!PCA!,or,^guardian^,)),),or,((^with^,or,^has^,or,^presents
with^,or,^presents to ED
with^,)),AND,((^caretaker^,or,^guardian^,or,!PCA!,)),),or,^guardianship^,or,^activity
impairment^,or,^limitation of activities^,)),ANDNOT,((^trouble breathing^,or,^difficulty
breathing^,or,^without difficulty^,or,^denies difficulty^,or,^Spanish assistance req^,)),)

Appendix

Definition Evolution During Development: Overall Disability (v1) Definition

Iteration 1: The first iteration of the definition included domains of Hearing, Vision, Mobility, Intellectual and Developmental, and Cognition and Central Nervous System Disorders. This first definition was presented to the scientific panel.

- General
 - The scientific panel suggested we capture more domains and conditions, like those included in disability policies like the Americans with Disabilities Act (ADA). As a result, we excluded conditions generally expected to last less than 6 months, those that can be treated surgically or through medication, and are acute or generally self-limiting conditions (e.g., conditions that do not result in functional impairments or limitations to daily life).
 - We included additional domains for Self-care and Learning
 - Mapped ICD-10 to ICD-9 where needed

Iteration 2: The second iteration was provided to the scientific panel for feedback and edits. The following changes were made:

- Overall
 - Added “Person encountering health services to consult on behalf of another person”, “Person awaiting admission to adequate facility elsewhere”, “Holiday relief care” to Keywords and Other domain
- Intellectual and Developmental
 - Included deformity of the skull and congenital malformations of the brain into Intellectual and Developmental Disability following Larson et. al. 2001
 - Added congenital hypothyroidism to Intellectual and Developmental Disability following Larson et. al. 2001
 - Moved ADHD and hyperkinetic syndromes from mental health additions to Intellectual and Developmental Disability
- Cognition and Central Nervous System
 - Kept all CWS epilepsy conditions in for consistency
- Chronic conditions
 - Added domain for and Chronic Conditions and Immune System Disorders
 - Decided to include amino acid transport diseases and cystic fibrosis in the chronic conditions tab
 - Mapped ICD-10 to SNOMED codes for all domains
 - Developed list of initial keywords for the chief compliant field
- Mental health
 - In consultation with NSSP CoP, we chose to use the existing definition for Mental Health as a domain in this definition in addition to including a short list of codes that are considered mental health disabilities
 - Moved severe mental illness and conduct disorders to Mental Health domain, Mental Health (MH) Additions

Iteration 3: The third iteration was provided to the scientific panel for feedback and edits. The following changes were made:

- Vision
 - Added code for macular degeneration (H35) to Vision domain
- Intellectual and Developmental Disability and Specific Developmental and Learning
 - Renamed Learning domain to "Specific Developmental and Learning"

<ul style="list-style-type: none"> ○ Moved ADHD, conduct disorders and hyperkinetic syndromes from Intellectual and Developmental Disability to Specific Developmental and Learning. These codes include all codes under 312, 314 (ICD9), F63, F90, F91 (ICD10), and 66347000, 406506008, 430909002 (SNOMED). • Chronic conditions <ul style="list-style-type: none"> ○ Rolled up chronic condition codes into higher level ICD grouping. SNOMED codes remain the same, as they are coded to higher level ICD-10 as possible. The scientific panel suggested the Chronic Conditions domain be provided as an optional addition for jurisdictions interested in specific chronic condition-related disabilities, rather than as part of the overall definition. ○ Removed "Mycobacterial, Mycotic, and Other Chronic Persistent Infections of the Lungs," which coded for acute viral and mycotic conditions, and "Hematological disorders treated by bone marrow or stem cell transplantation," which coded only for two Z codes that were for past history of bone marrow transplant from the Chronic Conditions domain • General <ul style="list-style-type: none"> ○ Added numerous keywords provided during breakout sessions of the scientific panel 	
<p>Iteration 4: Following the third scientific panel, CDC pilot-tested the definition at the national level. The following changes were made:</p> <ul style="list-style-type: none"> • General <ul style="list-style-type: none"> ○ Added key chief complaint terms discussed during the panel meeting to each domain 	
<p>Iteration 5: Following state and local pilot testing of the definition, the following changes were made:</p> <ul style="list-style-type: none"> • Hearing <ul style="list-style-type: none"> ○ Suggestion to exclude codes for ear infections (otitis media) H66.9[123] and H61.2[123]. <ul style="list-style-type: none"> ▪ Decided to exclude all codes in the H66 and H61.2 ICD-10 list (same exclusions added for ICD-9 and SNOMED). ○ Suggestion to determine if H81.09^MENIERE'S DISEASE UNSPECIFIED EAR or visits related to ear infection or impacted cerumen should remain included. <ul style="list-style-type: none"> ▪ Decided to keep code H81.0 due to lifelong nature of condition but excluded impacted cerumen (H61.2). ○ Cleaned up ICD-9, ICD-10, and SNOMED of duplicate codes in Excel sheet. ○ Added suggestions for exclusions and variations to keywords including: <ul style="list-style-type: none"> ▪ Variations of 'HEAR' with 'VOICE', 'SOUND', 'NOISE', 'SCREAM', 'CRY', 'POP', 'WHEEZ', 'COUGH'. ▪ Misspellings due to the use of the word 'HEAR' instead of 'HERE', e.g. 'HEAR FOR DIALYSIS'. ▪ Negations, such as 'DENIES ANY HEARING LOSS', 'NO LOSS OF HEARING' • Vision <ul style="list-style-type: none"> ○ Suggestion to exclude H53.9 Unspecified visual disturbance; H53.8 Other visual disturbances; H53.2 Diplopia; H53.40 Unspecified visual field defects; H02.829 Cyst of eyelid; H57.11 OCULAR PAIN RIGHT EYE. <ul style="list-style-type: none"> ▪ Decided to remove H53.9, H53.8, H53.2, H53.4 (but include H53.4[1-9][1-9], added H02.829 to negations. H57.11 (and H57 overall) is not included in syntax, but may have been captured with keywords, so added to negations. ○ Cleaned up ICD-9, ICD-10, and SNOMED of duplicate codes in Excel sheet. ○ Removed incorrect ICD-9 codes from syntax. ○ Added suggestions for exclusions and variations to keywords including: <ul style="list-style-type: none"> ▪ Added negations for blurred/blurry vision, visual disturbance, vision problem, migraines, seeing care (misspellings of seeking), 	

- Added negations, due to -DENIE, DENY, or NO and -VISION, EYE, SIGHT, SEEING and -LOSS, PROBLEM
 - Added negations for “SEEING” accompanied by words related to medical personnel or other words such as “STARS”, “BLOOD”, “PEOPLE”, “FACES”, “(FLASH)LIGHTS”, “(BLACK) DOTS/SPOTS”
- Mobility
 - Cleaned up ICD-9, ICD-10, and SNOMED of duplicate codes in Excel sheet. Kept codes for Spinal cord injury from CCW CMS as well as individual lines for each group of codes to ensure we aren't missing any due to differences in medical coding (e.g. some hospitals will code S22.059A, others will code S22.059).
 - Removing ICD codes: S43.109A, S43.004A, S43.409A, M79.10, M62.838, M62.81
 - All added to exclusions.
 - Suggestion to include exclusion terms for “chills”, “fever”, or “generalized body aches”
 - All added to exclusions.
 - Due to false positive results, added the following terms to exclusions: cellulitis, muscle weakness, sprain AND ankle, shoulder, wrist, knee, or thumb
- Intellectual and Developmental
 - Cleaned up ICD-9, ICD-10, and SNOMED of duplicate codes in Excel sheet.
 - Deleted codes for scientific panel's final decision to move ADHD and Conduct disorders out of this domain.
- Cognition and Central Nervous System
 - Cleaned up ICD-9, ICD-10, and SNOMED of duplicate codes in Excel sheet.
 - Suggestion to reduce false positives by removing “hard” or “sleep”
 - Removed “sleep” from keywords list.
 - Suggestion to include exclusion terms for “General weakness”, “headache”, “fever”, “abdominal pain”, “minor complaints not otherwise specified”
 - All added to exclusions.
- Specific Developmental and Learning
 - Cleaned up ICD-9, ICD-10, and SNOMED of duplicate codes in Excel sheet.
 - Deleted and added codes for scientific panels final decision to move ADHD and Conduct disorders into this domain.
 - Suggestion to exclude common phrases that are capturing false positives: Clear speech; denies difficult speech; Difficulty breathing; Difficulty seeing; Difficulty swallow; Difficulty walking; Does not speak English; Hard to swallow; Respiratory distress; Language barrier; No motor function; no slurred speech; NO speech difficulty; Primary language; PTS disorder; speech clear; Vision impaired; Vision Problems; Will not speak
 - Reviewed “All Together” syntax and included all codes from ICD-9, ICD-10 and SNOMED in final query
- Self-care
 - Suggestion to exclude “trouble breathing”, “difficulty breathing”, “without difficulty”, and “denies difficulty”.
 - Added negations for “trouble breathing”, “difficulty breathing”, “without difficulty”, and “denies difficulty”.
 - Reviewed and considered “Eating” as term for inclusion. There were matches because of acute GI / NVD illness that are associated with trouble/problems eating or drinking that are not a disability.
 - Removed trouble/hard/difficulty eating and drinking from list of keywords
 - Added code for Person encountering health services to consult on behalf of another person, Z71.0 to align with chief complaint field keywords.
- Mental Health
 - Cleaned up ICD-9, ICD-10, and SNOMED of duplicate codes in Excel sheet.
 - Highlighted rows that include the codes in addition to the NSSP ESSENCE list.

Iteration 6: Prior to the fourth scientific panel, the definition development team met with members of a project team at the Office of the Assistant Secretary of Planning and Evaluation (ASPE) regarding an

ongoing ASPE project to develop a definition for Intellectual and Developmental Disability. The definition development team conducted a crosswalk of the two definitions resulting in the following changes:

- Mobility
 - Added all relevant mobility ASPE codes to syntax and Excel
- Intellectual and Developmental
 - Added all relevant ASPE codes to syntax and Excel
- Specific developmental and learning
 - Added all relevant specific developmental and learning ASPE codes to syntax and Excel

Following feedback from the fourth scientific panel, the following changes were made:

- Overall
 - The full Overall Disability definition with all codes from every domain was compiled
- Intellectual and Developmental Disability and Specific Developmental and Learning
 - Developmental disorder of scholastic skills (F81.9, V40.0) were moved from Intellectual and Developmental Disability to the Specific Developmental and Learning
 - Pervasive developmental disorder was moved from the Specific Development and Learning domain to Intellectual and Developmental Disability
 - The series of codes for Lambert-Eaton syndrome (G70) was added to Intellectual and Developmental Disability
- General
 - Description for how keywords were collected and references to the Washington Group Short Set were added to each relevant fact sheet

Iteration 7: CDC conducted additional round of pilot testing of the definition at the national level to address concerns with inconsistent and/or low PPVs at the state and local level. Due to the scope of proposed revisions as described below, the definition development team decided to hold an ad-hoc fifth scientific panel meeting in May 2024.

- Overall
 - Suggested to move the keyword “prosthetic” to chronic domain. Most results are prosthetic valves (heart) and gastrointestinal prosthetics. Prosthetics related to other disability domains (e.g., mobility and vision) will be picked up, so consider removing prosthetic from overall domain rather than adding in negations. Heart valve issues are covered under chronic; but seems GI/feeding tube may not be covered by our definitions. Consider moving GI/feeding tube to chronic as well.
- Hearing
 - Suggested to add exclusions for chief complaints “ear infection” and “impacted cerumen” as many false positives were associated with these chief complaints were observed.
- Vision
 - None.
- Mobility
 - Removed driving (pulling difficulty with other things while driving to hospital; also pulling car accidents)
 - Added code: R26.89 Other abnormalities of gait and mobility
 - Suggested to remove codes pulling acute injuries including fracture of lumbar vertebra (e.g., S32.009, S32.019, S32.029, S32.039, S32.049, S32.059, S32.10, S32.2) and injury of lumbar and sacral spinal cord and nerves at abdomen, lower back and pelvis level (e.g., S43.0, S43.01, S43.02, S43.1, S43.10, S43.101, S43.102, S43.103, S43.104, S43.105, S43.109, S43.11, S43.111, S43.112, S43.113, S43.114, S43.115,

S43.119, S43.12, S43.121, S43.122, S43.123, S43.124, S43.125, S43.129, S43.13, S43.131, S43.132, S43.139, S43.2, S43.21, S43.22, S43.3, S43.4, S43.5, S43.6, S43.8, S43.9).

- Intellectual and Developmental Disability
 - Suggested to move Lambert-Eaton syndrome (e.g., G70.00, G70.01, G70.1, G70.2, G70.80, G70.81, G70.89, G70.9) to chronic domain as this condition is generally not considered developmental and is often associated with small cell lung cancer. In a subset of cases, it develops following another autoimmune disease. Examining the code list within HCUP data, demographics look more like the population without intellectual and developmental disabilities; these codes are prevalent in hospitalization data and often captures myasthenia gravis (autoimmune).
 - Suggested to remove specific developmental disorder of motor function (e.g., F82) as it is conceptually clearer to keep under Specific Developmental domain and not in Intellectual and Developmental Disability as well.
- Cognition and Central Nervous System
 - Suggested to move several codes often used in combination with stroke from Specific Developmental and Learning to Cognition and Central Nervous System (e.g., Agnosia, R48.1; Apraxia, R48.2; Visual agnosia, R48.3; Other symbolic dysfunctions, R48.8; Unspecified symbolic dysfunctions, R48.9; Speech disturbances, not elsewhere classified, R47.0, R47.01, R47.02, R47.1, R47.8, R47.81, R47.82, R47.89, R47.9).
- Specific Developmental and Learning
 - Suggested to change title of domain name to Specific Developmental, Behavioral, and Learning to incorporate conduct disorder diagnosed in childhood.
 - Suggested to remove a subset of conduct disorders typically diagnosed in adults (e.g., Pathological gambling, F63.0; Pyromania, F63.1; Kleptomania, F63.2; Trichotillomania, F63.3; Intermittent explosive disorder, F63.81; Other impulse disorders, F63.89; and Impulse disorder, unspecified, F63.9) as these disorders may not occur in childhood and are included in existing mental health domain. We suggested keeping conduct disorders that are considered developmental (e.g., Conduct disorder, childhood-onset type; Oppositional defiant disorder).
 - Suggested to move several codes often used in combination with stroke to the Cognition and Central Nervous System domain (e.g., Agnosia, R48.1; Apraxia, R48.2; Visual agnosia, R48.3; Other symbolic dysfunctions, R48.8; Unspecified symbolic dysfunctions, R48.9; Speech disturbances, not elsewhere classified, R47.0, R47.01, R47.02, R47.1, R47.8, R47.81, R47.82, R47.89, R47.9).
- Self-Care
 - Suggested to change title of domain name to Self-care and Independent Living. In addition to self-care, diagnostic codes included in this definition also include independent living (e.g., Problems related to living alone and problems related to living in residential institution).
 - Suggested to add Adult Failure to Thrive (R62.7) as this code is often used in combination with other codes included under this domain. Defined as progressive functional deterioration of a physical and cognitive nature. The individual's ability to live with multisystem diseases, cope with ensuing problems, and manage their care are remarkably diminished.

Iteration 8: Following the fifth and final scientific panel, the following changes were made:

- Overall
 - Moved the keyword “prosthetic” from Overall to chronic domain.
- Hearing

- Added exclusions for ear infection and impacted cerumen as many false positives were associated with these chief complaints.
- Vision
 - None
- Mobility
 - Removed codes pulling acute injuries including fracture of lumbar vertebra and injury of lumbar and sacral spinal cord and nerves at abdomen, lower back and pelvis level
- Intellectual and Developmental Disability
 - Moved Lambert-Eaton syndrome to chronic domain
 - Removed specific developmental disorder of motor function, F82 as it is covered under specific developmental domain. Prior to removal, CDC consulted with two emergency physicians to determine how F82 code is typically used; they advised it should be okay to remove from Intellectual and Developmental Disability as this code is unlikely to be used alone for more comprehensive disabilities that would be included under Intellectual and Developmental Disability.
- Cognition and Central Nervous System
 - Moved agnosia, other/unspecified symbolic dysfunctions, and speech disturbances, not elsewhere classified from specific developmental to Cognition and Central Nervous System domain
- Specific Developmental, Behavioral, and Learning
 - Changed title of domain name to Specific Developmental, Behavioral, and Learning
 - Panel decided to leave in a subset of conduct disorders typically diagnosed in adulthood
 - They are all possibly diagnosed in childhood
 - In blue sky day, may not expect a lot of hospitalizations from this group, but maybe if schools were shut down or disrupted/the technical supports are gone and someone is out in a less supported environment, then yes
 - Having the behavioral change in the title helps capture these
 - Moved agnosia, other/unspecified symbolic dysfunctions, and speech disturbances, not elsewhere classified to Cognition and Central Nervous System domain, but decided not to move apraxia
 - Concern if we remove, we will miss childhood apraxia; it is the same code for children as for adults; it is something that is often starting in childhood and persists and co-occurs with other conditions as well
- Self-Care and Independent Living
 - Changed title of domain name to Self-care and Independent Living
 - Added Adult Failure to Thrive (R62.7)