Methodology of the 4th National Incidence Study of Child Abuse and Neglect (NIS-4)

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Washington, DC
Two Studies Provide National Statistics on Maltreated Children the U.S.

- **National Child Abuse and Neglect Data System (NCANDES)**
- **National Incidence Study on Child Abuse and Neglect (NIS)**

  - Both sponsored by
    Children’s Bureau, Administration for Children and Families (ACF), U.S. Department of Health and Human Services (DHHS)

  - Both mandated by
    Child Abuse Prevention and Treatment Act (CAPTA), as amended

  - Both use Child Protective Service agencies’ data
NCANDS

- Collects data annually, from states, using a single source, CPS
- Attempts to obtain case-level data on the full census of children who screen-in for investigation or assessment
- Relies on local-agency caseworkers to classify case details into their state coding systems, and on states to map their codes into 6 general categories:
  - Physical abuse
  - Sexual abuse
  - Emotional maltreatment
  - Neglect
  - Medical Neglect
  - Other
National Incidence Study of Child Abuse and Neglect (NIS)

- is periodic ("critical but rare"): 
  - NIS-1, 1979-80 (P.L. 93-247) 
  - NIS-2, 1986 (P.L. 98-457) 
  - NIS-3, 1993 (P.L. 102-295) 
  - NIS-4, 2005-06 (P.L. 108-36) 

- uses a nationally representative sample methodology
The NIS Assesses Incidence using *multiple sources*. It combines information on maltreated children identified:

- in CPS investigations, and
- by professionals ("sentinels") in:
  - Departments of public health, public housing, juvenile probation
  - Law enforcement
  - Schools
  - Hospitals
  - Day care centers
  - Shelters
  - Social services/mental health
Unique Value of NIS

- **NIS is the nation’s needs assessment on child abuse and neglect**
  - NIS sees beyond the lens of the service provider (CPS)

- Applies **standardized definitions**
  - Harm Standard (already harmed/injured by maltreatment)
  - Endangerment Standard (includes Harm Standard children)
NIS Data Sources

Other Sources
Children Recognized as Abused or Neglected

NIS Sentinels
Children Recognized as Abused or Neglected

CPS Agencies
Investigated Children

NIS Data
NIS-4 Design Improvements

- 5 years and 3 phases of preparation
- Expanded sample sizes
  - More sites to study impact of policies and other community features
  - Improve precision of estimates at all levels
- Capitalized on technology
  - Study website
  - Online data form option & online support materials
  - Computerized tracking systems
  - Computer-assisted evaluative coding
**NIS Sample Design: 3-Stages**

- **PSUs**—national sample of counties/county clusters
- **Agencies**—CPS agencies and sentinel agencies serving the selected PSUs
- **Within-agencies**—
  - Samples of CPS investigated cases for details of maltreatment, summary data on all unsampled investigated cases
  - Samples of sentinels to remain on the lookout
NIS-4 PSU/county sample

- **PSUs** based on 3,141 counties in 2000 Census, updated to 2004 boundaries
  - >400,000 children = certainty selections (14 counties)
  - <4,000 children = clustered with adjacent (2,282 counties, 1,685 single & rest clusters)

- Noncertainty sampled **PPS by measure of size** (MOS, #children), stratified by
  - Census region
  - Metro status
  - NCANDS substantiation rate
  - FBI crime rate
  - Percentage single-female-headed households
NIS CPS Cases

- **Eligible cases:**
  reported to the agency during the study reference period and assigned for investigation

- **Case sample:**
  - Fatality cases sampled with certainty
  - Approximately equal-probability sample was randomly selected from the rest

- **Data:**
  - Sampled cases were assigned to receive CPS Maltreatment Form (details of maltreatment)
  - Nonsampled cases were assigned to receive CPS Summary Data Form (used in unduplication)
**NIS-4 Sentinel Agency Sample Design**

- **Allocated by local CPS agency/county clusters (CPSCL, n=115):**
  - Usually a single county
  - Multiple counties served by same local CPS agency were a single cluster
  - Average: 14.6 sentinel agencies per CPSCL

- **Followed an optimum allocation of the agencies across sentinel agency types, considering**
  - Within-category precision of estimates of uninvestigated children
  - Relative cost of recruiting and collecting data in the agency category
  - At least one agency in a category per CPSCL, except for law enforcement
  - Law enforcement optimum sample sizes so small, NIS-4 included law enforcement agencies in a subsample of 62 PSUs
Selecting Sentinels Within Agencies

- **Eligible sentinels:** staff whose normal job duties give them sufficient contact with children that they could observe maltreated children and learn enough to provide a reasonably complete study data form

- **Recruiters identify and select sentinels by:**
  - Identifying eligible units with the agency (if numerous, listing and sampling units)
  - Listing eligible staff (within the agency, or in the units) and taking with certainty or sampling

- Of 22,117 eligible staff listed, **11,321** were selected or sampled to be recruited as sentinels
NIS-4 Samples

- 122 counties in 110 sampled PSUs (115 CPSCLs)

- **CPS:**
  - All CPS agencies (126) serving sampled PSUs
  - ~11K maltreatment data forms
  - ~138K summary forms on unsampled cases

- **Sentinels:**
  - ~1,700 agencies sampled, ~1,100 participated
  - >11K sentinels selected, >10K participated
NIS-4 Reference Periods

Two 3-month periods:

- Fall 2005: Sep 4 - Dec 3
- Spring 2006: Feb 4 - May 3

CPS investigations on reports received in the period

Sentinel information on children maltreated in the period
NIS-4 Instruments—CPS

**CPS Summary Data Form**
- Single-page, household-level
- Primarily demographic
- Used for all unsampled cases to unduplicate, actually obtained on nearly all listed cases

**CPS Maltreatment Data Form**
- Multi-page, household-level
- Demographic and maltreatment details on all children
- Used for all sampled cases to evaluate against NIS definitions
NIS-4 Instruments—Sentinel

**Sentinel Data Form** *(paper)*
- Multi-page, child-level
- Demographic and maltreatment details
- Used for any child sentinel believes to be maltreated, to evaluate against NIS definitions

**Online Sentinel Data Form** *(electronic)*
- Data items and purpose all same as above
- Sentinel signed on with unique passcode
- Form required complete responses to key items
NIS Data Processing

NIS Data

Unduplication
Identify and unify duplicate records on the same child

Evaluative Coding
Harm Standard
Endangerment Standard

Weighting
To represent annual national data on children

National Estimates
Of children who are countable as abused or neglected under each standard
Negotiating CPS Participation

- Approval by state or local authorities
  - IRBs (n=26)
  - Research review committees (n=27)
  - Court orders (n=4)

- Data submission
  - Nature (electronic vs. paper)
  - Frequency (monthly, bimonthly, once)
  - Timing (during vs. after reference period)
  - Access (what elements can be provided)
CPS Participation in NIS-4 Main Study

- 100% Participation in CPS Summary Data forms (N=126)
- 6 local agencies in 3 States provided Summary Data only
Common Reasons Given for Not Participating

- Other commitments (assessments, other studies, No Child Left Behind)
- Stricter confidentiality laws and procedures (HIPAA)
- No direct benefit to the agency
- Duplication of effort
- Study outside of union contract
- Voluntary, did not want to
# Sentinel Agency Participation Rates Across Three NIS Cycles*

<table>
<thead>
<tr>
<th>Agency category</th>
<th>NIS-4</th>
<th>NIS-3</th>
<th>NIS-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juvenile probation</td>
<td>83</td>
<td>93</td>
<td>94</td>
</tr>
<tr>
<td>County sheriff/state police</td>
<td>76</td>
<td>97</td>
<td>92</td>
</tr>
<tr>
<td>Municipal police</td>
<td>78</td>
<td>96</td>
<td>93</td>
</tr>
<tr>
<td>Hospitals</td>
<td>69</td>
<td>100</td>
<td>96</td>
</tr>
<tr>
<td>Public health</td>
<td>77</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Social services/mental health</td>
<td>68</td>
<td>91</td>
<td>88</td>
</tr>
<tr>
<td>Day care</td>
<td>81</td>
<td>100</td>
<td>89</td>
</tr>
<tr>
<td>Schools</td>
<td>64</td>
<td>75</td>
<td>82</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>72</td>
<td>82</td>
<td>88</td>
</tr>
</tbody>
</table>

* Unweighted, after replacement


Evaluative Coding

- Applies to all children on sentinel forms and all alleged or indicated victims on CPS maltreatment forms

- Determines whether child fits the criteria for inclusion in study estimates (i.e., is "countable") under:
  - the Harm Standard (since NIS-1)
  - the Endangerment Standard (since NIS-2)

- Codes details of each child’s suspected maltreatment
  - Classifying each form of maltreatment
  - Specifying for each form:
    - Perpetrator(s)
    - Resulting harm or injury
    - Degree of evidence or support for assuming that the perpetrator is responsible for the maltreatment
Evaluative Coding Steps

- **Case Review** (read and understand case details)
- **Pre-Evaluative Coding** (assess child’s eligibility based on the design criteria)
- **Primary Evaluative Coding** (code the required elements for each identified maltreatment and determine child’s countability)
- **Reliability Coding** (re-assigns cases to a 2\textsuperscript{nd} coder for evaluative coding)
- **Discrepancy Resolution** (1\textsuperscript{st} E-coder and reliability coder discuss case in Committee Review meetings and resolve any discrepancies)
 Evaluative Coding Decisions

- **Child’s eligibility** (age, residence, custody, victim status)
  [pre-evaluation—ineligible stop here]
- **Relevant form(s) of maltreatment**
- **Time of maltreatment**
- **Nature of harm** (injury)
- **Severity**
- **Person(s) responsible for maltreatment**
  - Relationship to the child
  - Role in maltreatment (maltreated or permitted)
  - Degree of evidence for responsibility
Design Improvements: Coding System Refinements

- the NIS Definitions Review refined the typology, differentiating a typology of 60 specific forms of maltreatment allegations.

- Supplementary Coding of Specific Types of Injuries produced refined codes for characterizing injury/harm and guiding severity ratings.

- New codes for Perpetrator’s Use of Drugs/Alcohol or Mental Illness.

- Dynamic Reliability Coding and Ongoing Retraining maintained highly consistent coding decisions.
### Evaluative Coding Typology

**6 main categories, 2 additional**

(60 form codes):

- **Sexual abuse** (10) (4)
- **Physical Abuse** (6) (1)
- **Emotional Abuse** (8) (4)
- **Physical Neglect** (12) (7)
- **Educational Neglect** (4) (3)
- **Emotional Neglect** (11) (7)
- **Other Maltreatment*** (6) (2)
- **Not Countable by NIS** (3)

Note: *in Endangerment Standard*
Evaluative Coding Operations

- **E-coding Timeframe**—
  14 months, from August 2006 to October 2007

- **Staff**—
  - 27 coders worked on the task over this period
  - Trained for 3 weeks, in 6 training sessions

- **Ongoing activities**—
  - Coders entered their decisions using Computer-Assisted Evaluative Decision System (CAEDS),
  - E-coding supervisors monitored inter-coder reliability with Kappa coefficients and percent agreement rates,
  - Coders and supervisors met in Committee Review for discrepancy resolution twice weekly.
Evaluative Coding Statistics

- 30,539 child records were evaluatively coded
- 12,358 (40%) child records were reliability coded, 6,950 passed pre-evaluation and qualified for e-coding
- 97% (HS) & 98% (ES) Intercoder agreement on child’s countability
- .94 Kappa for Overall Case Countability
  - Harm Standard Countability Kappa .95
  - Endangerment Standard Countability Kappa .91
High Reliability Despite Complex Codes

- **Intensive and lengthy initial training**
- **Computer-Assisted Evaluative Decision System (CAEDS)**
- **Dynamic Reliability Coding**—Fully automated reliability assessment of inter-coder agreement allowed ongoing measurement, with weekly reports—overall, by individual coder, & for individual decision items
- **Weekly review sessions to resolve discrepancies, provide targeted ongoing retraining:**
  - Intervene quickly after coding disagreement
  - Focus retraining on less reliable decision items
  - Identify and quickly retrain or remove problem coders
- **Reward highest performers (accuracy and productivity)**
### Part A: Significant Persons

<table>
<thead>
<tr>
<th>Person A (Parent or Home)</th>
<th>Person B (Person A's Spouse or Partner)</th>
<th>Other Involved Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent living in home (preferred)</td>
<td>Spouse/partner living in home (preferred)</td>
<td>Who else was involved with the child?</td>
</tr>
<tr>
<td>Parent with primary child care responsibility living in home</td>
<td>Unemployed or looking for work</td>
<td>Additional information about additional person(s) involved:</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>Unemployed or looking for work</td>
<td>Additional person(s):</td>
</tr>
</tbody>
</table>

#### Part B: The Home

<table>
<thead>
<tr>
<th>Location of household</th>
<th>City or Town</th>
<th>County</th>
<th>State</th>
<th>ZIP Code</th>
</tr>
</thead>
</table>

### Additional Information

- **Name or ID number of Investigating CPS Caseworker**
- **Investigating Agency**
- **Date of report**
- **CPS ID**
- **Case number**
- **Disposition**
- **Dates involved**
- **Date of maltreatment**
- **Maltreatment type**
- **Maltreatment description**
- **Intervention type**
- **Intervention description**
- **Reported by**
- **Other**

### Employment Information

- **Employment (see instructions)**
- **Active at time of maltreatment**
- **Past year (60 hours or more per week)**
- **Past 6 months (30 hours or more per week)**
- **Past 3 months (20 hours or more per week)**
- **Past 2 months (15 hours or more per week)**
- **Past 1 month (10 hours or more per week)**
- **Past 2 weeks (5 hours or more per week)**
- **Past 1 week (unknown)**
- **Past 1 day (unknown)**

### Educational Information

- **Educational level (check one)**
- **Completed high school (baccalaureate degree)**
- **Completed college (bachelor's degree)**
- **Completed advanced degree**

### Ethnicity

- **Ethnicity (check one)**
- **American Indian or Alaska Native**
- **Asian**
- **Black or African American**
- **Hispanic or Latino origin**
- **Other (specify)**

### Race

- **Race (check all that apply)**
- **American Indian or Alaska Native**
- **Asian**
- **Black or African American**
- **Hispanic or Latino origin**
- **Other (specify)**
**Select the category of maltreatment**

- Physical Abuse

**And Form Subcode**

- 4.1
- 4.2
- 4.3
- 4.4
- 4.5

**Date of Incident** 03 / 07 / 2005

**Reference Period** 21 - Date of incident falls in agency reference period

**Timeframe eligibility** 1 - Events appear to have occurred during a study reference period

**Nature of Injury/Harm**

- Physical Injury
- Impaired Educational development
- Unknown
- No known or apparent injuries, but child is endangered
- No known injuries, child is not endangered

**Severity of Injury/Harm** Serious

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**Persons Responsible for Maltreatment**

<table>
<thead>
<tr>
<th>Person (Relation, Age, Gender)</th>
<th>Maltreated</th>
<th>Permitted</th>
<th>No Role</th>
<th>Alcohol Use</th>
<th>Illicit drug use</th>
<th>Mental illness</th>
<th>Parent/Parent Substitute</th>
<th>Adult CG</th>
<th>Minor CG</th>
<th>Other Person</th>
<th>Perpetrator Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Parent, 15, F)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strong Evidence</td>
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<tr>
<td>B (Grandparent, 50, F)</td>
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<tr>
<td>Other involved</td>
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<tr>
<td>1 (biological father, 17, M)</td>
<td>✓</td>
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<td>2 (No Data Entered)</td>
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<td>3 (No Data Entered)</td>
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<tr>
<td>4 (No Data Entered)</td>
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<tr>
<td>5 (No Data Entered)</td>
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</tr>
</tbody>
</table>
**Review of an Added Maltreatment**


**Select the category of maltreatment:**
- Physical Neglect

**And Form Subcode:**
- 12.4

**Date of Incident:**
- 10 / 04 / 2005

**Reference Period:**
- 21 - Date of incident falls in agency reference period

**Timeframe eligibility:**
- 1 - Events appear to have occurred during a study reference period

**Nature of Injury/Harm:**
- Physical Injury
- Impaired Educational development
- Unknown
- Physical impairment or other health condition
- Mental/emotional injury or impairment or behavioral problem

**Severity of Injury/Harm:**
- Endangered

**Other Physical Neglect: Inadequate Shelter**

Conspicuous inattention to child’s need for adequate and safe shelter. Inadequate shelter includes physical hazards in the home or grounds (such as exposed wiring, broken glass, accessible dangerous substances, “filth,” dangerous or unhygienic pets, etc.).

When hazardous living condition is alleged in conjunction with inadequate supervision, the case is assigned to that form of maltreatment which appears to have been the predominant form of negligence (i.e., would the hazardous condition have endangered even a well-supervised child?)

<table>
<thead>
<tr>
<th>Persons Responsible for Maltreatment</th>
<th>Maltreated</th>
<th>Permitted</th>
<th>No Role</th>
<th>Alcohol Use</th>
<th>Illicit drug use</th>
<th>Mental illness</th>
<th>Parent/Parent Substitute</th>
<th>Adult CG</th>
<th>Minor CG</th>
<th>Other Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Parent, 37, F)</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>Strong Evidence</td>
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<tr>
<td>B (No Data Entered)</td>
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</tr>
</tbody>
</table>

**Perpetrator Responsibility:**
- Strong Evidence
Severity of Harm - Serious

- Child's life-threatening condition
- Injury or impairment is serious enough to cause significant long term impairment of physical capacities
- Injury or impairment is serious enough to cause significant long-term impairment of mental or emotional capacities
- Injury or impairment requires professional treatment aimed at preventing significant long term physical impairment
- Injury or impairment requires professional treatment aimed at preventing significant long term mental or emotional impairment
- Injuries or impairment requires that the child be hospitalized
- Injuries or impairment requires immediate medical treatment
- Injuries, impairments, and/or behavior indicates the child requires psychiatric treatment or counseling
- Injuries, impairments, and/or behavior indicates the child requires extensive therapeutic counseling and treatment

Emotional and mental characteristics that indicate a dangerous level of instability or the possibility of self-inflicted injury
Chronic and debilitating drug/alcohol abuse (includes but not necessarily limited to drug addiction or drug withdrawal symptoms)
Positive drug toxicology
Diagnosed symptoms of drug/alcohol withdrawal or the need for treatment for this problem
Learning disabilities caused by a loss of schooling serious enough to require special education services
Poor academic performance in conjunction with other forms of abuse or neglect, which requires professional intervention and tutoring.
Any educational problems and/or needs that seriously affect the child's ability to learn.
Circumstantial or direct evidence of physical injury/impairment and other observed problems that are considered serious in nature.
Unduplication

**Purpose:**
To identify children who enter the study on multiple data forms and reduce their data to a single record for analysis

**Steps:**
- Identify child-level records that may be duplicates (*candidate pairs*)
- Decide whether candidate pair records are true duplicates
- Unify true duplicates
Candidate Pairs

- **Basis:**
  Matches on subsets of 8 data items
  - First name
  - Last name initial
  - Sex
  - Date of birth
  - Age
  - Ethnicity/race
  - City of residence
  - Number of children in family

- **Methods:** [for CPS Maltreatment and Sentinel Data Forms]
  - **Manual**—using a computer-assisted sorting system
  - **Rule-based**—using a NIS-3 algorithm that targets pairs that match on 2 out of 3 key items
  - **Probability-based**—using matching software that applies parameters to different types of matches and generates a probabilistic result
Deciding True Duplicates

For candidate pairs that involved CPS Maltreatment and Sentinel Forms only:

- Unduplication staff accessed the scanned data forms electronically, using a “form viewer” system
- Reviewed the case details
- Decided whether the forms described the same child

For candidate pairs that involved any CPS Summary Form:

- Only demographic items, no details to help decide on true duplicates
- Statisticians adjusted parameters of probability-based software to simulate unduplicators’ decisions about ‘true duplicates’ on candidate pairs that had more details
Unifying True Duplicates

- Collected “true duplicate” pairs into duplicate groups, following the transitivity rule

- Selected one record to represent the child, giving preference to:
  - Countable maltreatment
  - Complete demographic information
  - Sentinel sources higher in the NIS hierarchy

- Assigned recognition to specific source, following the NIS source hierarchy

- Adjusted the child’s weight to account for the multiple chances the child had of entering the study
Weighting

**Purpose:**

Permit the survey data to provide national estimates of the number of children who were abused or neglected in the U.S. during the study year, 2005-2006.
NIS-4 Weighting Components

- **Base Weight**
- **Special Adjustments to PSU Base Weights**
  - PSU subsample weight
  - Population adjustment
- **Nonresponse Adjustments**
- **Multiplicity Adjustments**
- **Annualization Adjustments**
Base Weight

Adjusts for different probabilities of sampling at every level:

- **PSU**
- **Agency:**
  - CPS agency
  - Sentinel
- **Within-agency samples**
  - CPS Case Sample for Maltreatment Data Forms
  - Sentinel group within agency
    - (Where applicable) Sentinel case sample
Special Adjustments to PSU Base Weights

- **PSU Subsample Weight**
  Adjusts for the law enforcement subsample

- **Population Adjustment**
  Corrects so study estimates are accurate relative to the size and distribution of the child population at the time of the NIS-4 reference periods
Nonresponse Adjustments

Compensate for nonresponse and partial participation:

- Agency refusals
- Missing CPS Maltreatment Data Forms
- Sentinel refusals
- Sentinel partial participation (delayed starts and missing days on the lookout)
Multiplicity Adjustments

Adjust for known multiple probabilities of identifying the same maltreated child through multiple reports to CPS or multiple sentinel sources, based on duplicate data forms
Annualization

- **Transforms 3-months’ data into full-year (12 month) estimates**, using NCANDS data for 2005-2006 on substantiated cases

- **Accommodates seasonality differences between the 2 NIS-4 reference periods**, deriving separate adjustments from NCANDS for the two reference periods
Contents of NIS-4 Public Use File

- **Child-level records** for all NIS-countable children plus drug-affected newborns
  - 12,408 Endangerment Standard countable children
  - 286 Drug-affected newborns without countable other maltreatment
- **Full case-weight and 62 replicate weights** on each record
- **Evaluative coding decisions** for countable maltreatment:
  - Classification codes for all levels of Harm Standard and Endangerment Standard maltreatment (overall, abuse, neglect, specific categories, and specific forms)
  - Most severe outcome and nature of harm/injury
  - Most closely related perpetrator of countable maltreatment (relationship, age, sex, alcohol and drug use, mental illness)
Contents of NIS-4 PUF (Cont’d)

- **Child and family characteristics:**
  - Age, sex, race/ethnicity, disability, school enrollment
  - Parents’ employment, family structure and living arrangement, grandparent caregivers, socioeconomic status, (parents’ education, family income, poverty program participation), urban and metrostatus of county of residence

- **Recognition source and CPS investigation:**
  - Recognition source (sentinel category or reporter to CPS)
  - Whether CPS investigated the child’s maltreatment

- **Measures extracted from 3 NIS-4 supplementary studies:**
  - CPS Structure and Practices Mail Survey (SPM)
  - CPS Screening Policies Study (SPS)
  - CPS investigation during extra month after main study
Logical Relationship between NCANDS and NIS

12 per 1,000 NCANDS victims

NCANDS victims (substantiated)

NCANDS unsubstantiated

40 per 1,000
NIS Endangerment Standard

17 per 1,000
ES children in CPS investigations

(NIS-4, 2005-2006)
CPS Investigation of Harm Standard Maltreatment

<table>
<thead>
<tr>
<th>NIS</th>
<th>Children per 1,000</th>
<th>Not Investigated</th>
<th>Investigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIS-1</td>
<td>9.8</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>NIS-2</td>
<td>14.8</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>NIS-3</td>
<td>23.1</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>NIS-4</td>
<td>17.1</td>
<td>32%</td>
<td></td>
</tr>
</tbody>
</table>
### Supplementary Studies to Help Interpret NIS-4 Findings

<table>
<thead>
<tr>
<th>Question</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the short (3-mo) reference period lead NIS to underestimate the extent of CPS investigation?</td>
<td>Collect an additional month of CPS data</td>
</tr>
<tr>
<td>What cases do sentinels contribute to NIS? How do training &amp; agency policy relate to non-reporting?</td>
<td>Sentinel Definitions Study – training, agency policy, definitions, reporting decisions</td>
</tr>
<tr>
<td>How do CPS agencies’ organization, policies, &amp; practices affect the % uninvestigated?</td>
<td>CPS structure and practices - mail survey</td>
</tr>
<tr>
<td></td>
<td>CPS screening policies – interviews about scenarios</td>
</tr>
</tbody>
</table>
Effect of the Extended CPS Data Period on Investigation Rates

- **NIS obtains data on all children investigated during the study reference period**
  - *Children that sentinels reported to CPS soon after the NIS reference period are classified as not investigated*

- **NIS-4 collected the CPS Summary Forms for an additional (4th) month:**
  - *Unduplicated with the main study data*
  - *Examined effect on percentage of countable children investigated*
Sentinel Survey

- Sentinels’ training on mandated reporting
- Sentinels’ history of reporting
- Agencies’ policies on direct reports to CPS
  (identify needs for training/outreach/policy changes)

Respond to 60 vignettes reflecting all specific forms of maltreatment that NIS definitions cover—

- What situations do they define to be maltreatment?
  (calibrate changes across future NIS cycles)
- What situations would they report to CPS?
- What situations would they give to NIS?
  (gauge potential NIS undercoverage)
CPS Structure and Practices

- Mail survey, 4 modules—
  - Administration/Organization
  - Screening
  - Investigation
  - Alternative (noninvestigative) Response Option

- Staffing and specialization

- Workload

- Procedures (e.g., local vs. hotline screening)

- Shared/sole responsibility
CPS Screening Policies

- Interviewed screening supervisors in all participating CPS agencies
- Presented 60 vignettes reflecting all specific forms of maltreatment that NIS definitions cover—
  - Asked whether, based on the information their agency would investigate the case
- Re-evaluated all the countable but uninvestigated children applying the standards used in the CPS agency with jurisdiction
  - Decided whether the agency would have investigated these children if they had been reported
## Supplementary Analyses to Interpret NIS-4 Findings

<table>
<thead>
<tr>
<th>Question</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do NIS findings relate to NCANDS data?</td>
<td>NIS-NCANDS Comparison Study on CPS data</td>
</tr>
<tr>
<td>What can explain the NIS findings on race?</td>
<td>Supplementary NIS-4 Race Analyses</td>
</tr>
<tr>
<td>How might the current recession affect the incidence of child abuse and neglect?</td>
<td>Incidence Projections in the 2009 Recession Economy</td>
</tr>
</tbody>
</table>
NIS Data Limitations/Challenges

NIS data include only maltreated children.

They can directly support:

- Descriptive analyses
- Comparisons of subgroups of maltreated children
- Contingent risk analyses

But for noncontingent risk analyses, they must be combined with census data.

NIS-4 Report to Congress examined risk differences on single variables, i:

\[
\text{Rate}_i = \frac{\text{NIS Estimate}_i}{\text{Census Total}_i}
\]
Race Difference and Recession Economy Analyses Required Multifactor Models

- For those analyses, we focused on 7 risk factors:
  - Child’s age, sex, race
  - Family size, family structure
  - Parent’s employment
  - Socioeconomic status

- We merged the NIS-4 data on maltreated children with Census data on all children on all these characteristics (a 7-way matrix)

- In each cell, we identified the number of nonmaltreated children that combination of characteristics by subtracting the totals, and created records for these nonmaltreated children

- We used the combined maltreated and nonmaltreated child records to conduct multi-factor logistic regression analyses
Findings:
- NIS-4 Report to Congress
  (Appendix A is Design and Methods Summary)

Technical Reports:
- NIS-4 Data Collection Report
- NIS-4 Analysis Report

Supplementary Study Reports:
- CPS Structure and Practices Mail Survey
- CPS Screening Policies Study
- Sentinel Definitions Survey

Supplementary Analysis Reports:
- Supplementary Analysis of Race Differences in the NIS-4
- Incidence Projections in the 2009 Recession Economy
- Comparison of NIS-4 and NCANDS

Public Use File and User’s Guide
At NDACAN: www.ndacan.cornell.edu