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

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

- *National Child Abuse and Neglect Data System (NCANDS)*
- *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
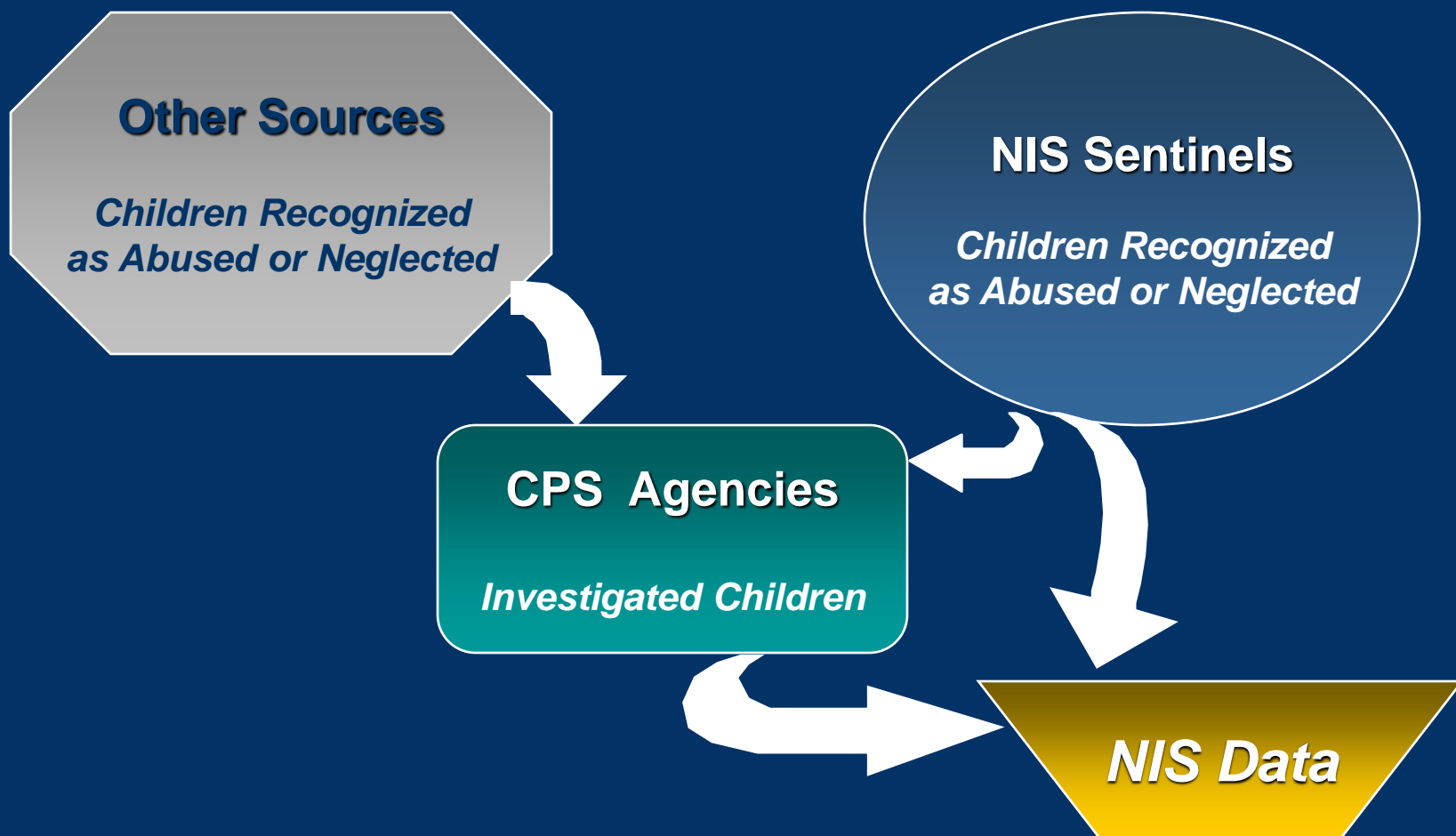

using <u>*multiple sources*</u>*.*
It combines information on maltreated children identified

- 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
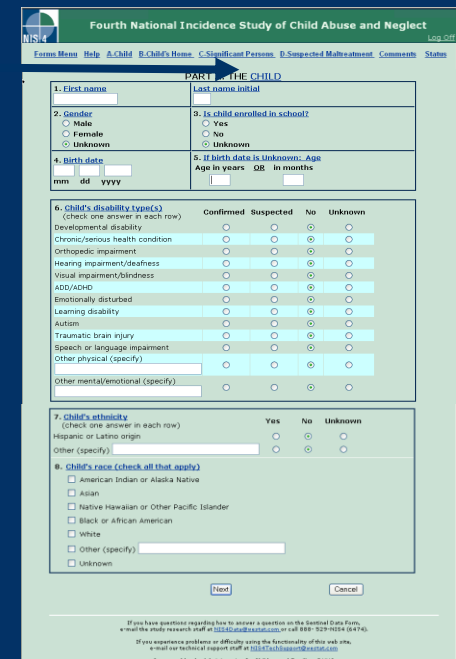
Sentinel Data Form *(paper)*

- 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

Weighting

To represent annual national data on children

Evaluative Coding

Harm Standard Endangerment Standard

National Estimates

Of children who are countable as abused or neglected under each standard

18

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*

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

* 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 2nd coder for evaluative coding)

- *Discrepancy Resolution* (1st 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):   NIS-4   NIS-3

- 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)

*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)*

| Select Case | Display Case Images | Display Case Documents | Case Review | Add Person (or Child) | Pre-Evaluative Code Case | Add (Coded) Maltreatment | Sentinel Web Functions | Problem Review | OIP (Added) Review | Maltreatment Review | Realign Household | | Admin Functions |

Attached forms   App Ver. 2.1.47   DB: 2.007

Child Case Review

| Child | Person A | Person B | Other Involved Person |

| Basic Child Background | Disability Type(s) | The Home | Report Source | Victim status |

Wescaseid   1571110570

Report Date   MM [9] / DD [7] / YY [2005]

Caseworker   C76425

Gender   (•) M ( ) F ( ) Unknown

Child enrolled in school?   ( ) Yes (•) No ( ) Unknown

Date of Birth   MM [09] / DD [08] / YY [2005]   **Age** [ ]   ( ) Years ( ) Months

Ethnicity:
Hispanic/Latino origin   ( ) Yes ( ) No (•) Unknown
Other (specify, if yes)   ( ) Yes ( ) No (•) Unknown

Race:
[ ] American Indian/Alaskan Native   [ ] Asian   [ ] Native Hawaiian/Pacific Islander   [ ] Black/African American
[ ] White   [ ] Other (specify)   [✓] Unknown

[✓] I have completed the review of this case

[Problem]   [Close]

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1081-045096

4th National Incidence Study of Child Abuse and Neglect

CHILD PROTECTIVE SERVICES (CPS)—MALTREATMENT DATA FORM

CPS ID: 0621-0570-5104-9045418
Date reported to CPS: 10/5/2
OMB No.: 0970-0297 Expires: 8/31/20

NAME OR ID NUMBER OF INVESTIGATING CPS CASEWORKER

PART A. SIGNIFICANT PERSONS

PERSON A (Parent in Home)	PERSON B (Person A's Spouse/Partner)	OTHER INVOLVED PERSON
[X] Parent living in home (preferred)	[ ] A's spouse/partner living in home (preferred)	Other person who maltreated or permitted maltreatment
If no parent living in home:	If no spouse/partner of Person A living in home:	If more than one other involved person, see Additional Other Involved Persons Attachment
[ ] Person with primary child care responsibility living in home	[ ] Other person with child care responsibility living in home	If no other person involved in maltreatment, skip this column and go to Part B below
	If no other child care person in home, skip this column.	

1a. Age 37 (approximate years)	1b. Age (approximate years)	1c. Age (approximate years)
2a. Gender [ ] Male [X] Female	2b. Gender [ ] Male [ ] Female	2c. Gender [ ] Male [ ] Female

3a. Person A is (check one)	3b. Person B is Person A's (check one)	3c. Was this person living in child's home at the time of the maltreatment event(s)? (Check one)
[X] A single parent/person	[ ] Spouse [ ] Son or daughter	[ ] Yes [ ] No [ ] Unknown / Not Available
[ ] Living with spouse	[ ] Unmarried live-in (cohabiting) partner [ ] In-law	
[ ] Living with unmarried partner	[ ] Roommate/renter/housemate/roommate [ ] Other relative (specify)	
[ ] Other (specify)	[ ] Parent [ ] Other non-relative (specify)	
[ ] Unknown/Not Available	[ ] Sibling [ ] Unknown/Not Avail	

4a. Employment (see instructions)			4b. Employment (see instructions)			4c. Employment (see instructions)		
	At time of maltreatment	In past year		At time of maltreatment	In past year		At time of maltreatment	In past year
Employed full-time (30 hours or more per week)	[ ]	[ ]	Employed full-time (30 hours or more per week)	[ ]	[ ]	Employed full-time (30 hours or more per week)	[ ]	[ ]
Employed part-time	[ ]	[ ]	Employed part-time	[ ]	[ ]	Employed part-time	[ ]	[ ]
Unemployed and looking for work	[ ]	[ ]	Unemployed and looking for work	[ ]	[ ]	Unemployed and looking for work	[ ]	[ ]
Active duty military	[ ]	[ ]	Active duty military	[ ]	[ ]	Active duty military	[ ]	[ ]
Other (specify)	[X]	[X]	Other (specify)	[ ]	[ ]	Other (specify)	[ ]	[ ]
Unknown/Not Available	[ ]	[ ]	Unknown/Not Available	[ ]	[ ]	Unknown/Not Available	[ ]	[ ]

5a. Educational level (check one)	5b. Educational level (check one)	5c. Educational level (check one)
[ ] Did not complete high school	[ ] Did not complete high school	[ ] Did not complete high school
[X] Completed high school (incl. equivalency)	[ ] Completed high school (incl. equivalency)	[ ] Completed high school (incl. equivalency)
[ ] Some education beyond high school	[ ] Some education beyond high school	[ ] Some education beyond high school
[ ] Completed college (bachelor's degree)	[ ] Completed college (bachelor's degree)	[ ] Completed college (bachelor's degree)
[ ] Completed advanced degree	[ ] Completed advanced degree	[ ] Completed advanced degree
[ ] Unknown/Not Available	[ ] Unknown/Not Available	[ ] Unknown/Not Available

6a. Ethnicity (check one answer in each row)				6b. Ethnicity (check one answer in each row)				6c. Ethnicity (check one answer in each row)			
	Yes	No	Unknown/NA		Yes	No	Unknown/NA		Yes	No	Unknown/NA
Hispanic or Latino origin	[ ]	[X]	[ ]	Hispanic or Latino origin	[ ]	[ ]	[ ]	Hispanic or Latino origin	[ ]	[ ]	[ ]
Other (if "yes," specify)	[X]	[ ]	[ ]	Other (if "yes," specify)	[ ]	[ ]	[ ]	Other (if "yes," specify)	[ ]	[ ]	[ ]
White											

7a. Race (check all that apply)	7b. Race (check all that apply)	7c. Race (check all that apply)
[ ] American Indian or Alaska Native	[ ] American Indian or Alaska Native	[ ] American Indian or Alaska Native
[ ] Asian	[ ] Asian	[ ] Asian
[ ] Native Hawaiian or Other Pacific Islander	[ ] Native Hawaiian or Other Pacific Islander	[ ] Native Hawaiian or Other Pacific Islander
[ ] Black or African American	[ ] Black or African American	[ ] Black or African American
[X] White	[ ] White	[ ] White
[ ] Other (specify)	[ ] Other (specify)	[ ] Other (specify)
[ ] Unknown/Not Available	[ ] Unknown/Not Available	[ ] Unknown/Not Available

PART B: THE HOME

8. Location of household   City or Town: County: State: CA

| Select Case | Display Case Images | Display Case Documents | Case Review | Add Person (or Child) | Pre-Evaluative Code Case | Add (Coded) Maltreatment | Sentinel Web Functions | Problem Review | OIP (Added) Review | Maltreatment Review | Realign Household | Admin Functions |

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Review of an Added Maltreatment   Multiple Residence

Select the category of maltreatment

[(2) Physical Abuse]

And Form Subcode
- (•) 4.1　( ) 4.2　( ) 4.3　( ) 4.4　( ) 4.5　( ) 4.6

Date of Incident [09] / [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
- [ ] Physical impairment or other health condition
- [ ] Impaired Educational development
- [ ] Mental/emotional injury or impairment or behavioral problem
- [ ] Unknown
- [ ] No known or apparent injuries, but child is endangered
- [ ] No known injuries, child is not endangered

Severity of Injury/Harm [Serious]

Persons Responsible for Maltreatment				Factors related to Maltreatment			Level of Certainty to meet Perp. Requirement				Perpetrator Responsibility
Person (Relation, Age, Gender)	Maltreated	Permitted	No Role	Alcohol Use	Illicit drug use	Mental illness	Parent/ Parent Substitute	Adult CG	Minor CG	Other Person	
A (Parent, 15, F)			✓								
B (Grandparent, 50, F)			✓								
Other involved											
1 (biological father, 17, M)	✓	☐		☐	☐	✓		1			Strong Evidence
2 (No Data Entered)											
3 (No Data Entered)											
4 (No Data Entered)											
5 (No Data Entered)											

| Enter a Problem | Code Another Harm | Countability Review | | Delete this Maltreatment | Close |

Select the category of maltreatment

(4) Physical Neglect ▼

And Form Subcode

○ 8.0   ○ 9.0   ○ 10.1   ○ 10.2   ○ 10.3   ○ 10.4   ○ 11.0   ○ 12.1

○ 12.2   ○ 12.3   ● 12.4   ○ 12.5

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 ▼

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?)

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 ▼

Persons Responsible for Maltreatment				Factors related to Maltreatment			Level of Certainty to meet Perp. Requirement				Perpetrator Responsibility
Person (Relation, Age, Gender)	Maltreated	Permitted	No Role	Alcohol Use	Illicit drug use	Mental illness	Parent/ Parent Substitute	Adult CG	Minor CG	Other Person	
A (Parent, 37, F)	☑	☐		☐	☐	☐	1				Strong Evidence ▼
B (No Data Entered)											
Other involved											
1 (No Data Entered)											
2 (No Data Entered)											
3 (No Data Entered)											
4 (No Data Entered)											
5 (No Data Entered)											

Enter a Problem   Code Another Harm   Countability Review   Delete this Maltreatment   Close

Select Case | Display Case Images | Display Case Documents | Case Review | Add Person (or Child) | Pre-Evaluative Code Case | Add (Coded) Maltreatment | Sentinel Web Functions | Problem Review | OIP (Added) Review | Maltreatment Review | Realign Household | Admin Functions

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Review of an Added Maltreatment   Multiple Res...

Select the category of maltreatment

(2) Physical Abuse

Date of Incident 09 / 07 / 2005

Reference Period 21 - Date of incident falls in agency refe...

Timeframe eligibility 1 - Events appear to have occurre...

Nature of Injury/Harm

☑ Physical Injury   ☐ Impaired Educa...

☐ Physical impairment or other health condition   ☐ Mental/emotio... behavioral prob...

Severity of Injury/Harm Serious

Persons Responsible for Maltreatment		
Person (Relation, Age, Gender)	Maltreated	Permitted
A (Parent, 15, F)		
B (Grandparent, 50, F)		
Other involved		
1 (biological father, 17, M)	☑	☐
2 (No Data Entered)		
3 (No Data Entered)		
4 (No Data Entered)		
5 (No Data Entered)		

Nature of Harm - Physical Injury

☐ Traumatic (not disease-caused) death (except suicide)

☑ Fractured or broken bones

☐ Gunshot wounds

☑ Intracranial hemorrhages

☐ Trauma or injuries to the skull

☑ Injuries to the head for children less than 3 years old

☑ Shaken baby syndrome

☐ Concussion

☐ Spinal cord injuries

☐ Amputations

☐ Disfigurements (significant scarring)

☐ Injuries that damage any internal organs

☐ Internal bleeding

☐ Near drowning

☐ Poisoning (includes intentional act of poisoning and the ingestion of drugs, poisons, household cleaners, etc. through neglect)

☐ Any injury that causes permanent disability or irreversible damage to mobility (if amputation or spinal cord injury causes damage to child's mobility, this code should also be checked.)

☐ Contusions/bruises covering over 5% of the body

☑ Contusions/bruises covering less than 5% of the body

☐ 3rd degree burns

☐ 2nd degree burns covering over 5 % of the body surface

☐ 2nd degree burns covering one area of the body or less than 5 % of the body surface

☐ 1st degree burns covering over 5 % of the body surface

☐ 1st degree burns covering one area of the body or less than 5 % of the body surface

☐ Cuts and lacerations

☐ Puncture wounds (stabbing, biting, piercing, etc.)

☐ Welts, swelling, or abrasions

☐ Any physical injury to the genitals, genital areas, or anus (vaginal or rectal tears)

☐ Injuries that cause the loss or removal of teeth

☐ Any other physical injuries

Close

Problem   Harm   Review   Maltreatment   Close

Select Case | Display Case Images | Display Case Documents | Case Review | Add Person (or Child) | Pre-Evaluative Code Case | Add (Coded) Maltreatment | Sentinel Web Functions | Problem Review | OIP (Added) Review | Maltreatment Review | Realign Household | Admin Functions

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Review of an Added Maltreatment   Multiple Res...

Select the category of maltreatment

(2) Physical Abuse

Date of Incident [09 ▼] / [07 ▼] / [2005]

Reference Period [21 - Date of incident falls in agency ref...]

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Nature of Injury/Harm

☑ Physical Injury   ☐ Impaired Educa...

☐ Physical impairment or other health condition   ☐ Mental/emotio... behavioral prob...

Severity of Injury/Harm [Serious]

Persons Responsible for Maltreatment		
Person (Relation, Age, Gender)	Maltreated	Permitted
A (Parent, 15, F)		
B (Grandparent, 50, F)		
Other involved		
1 (biological father, 17, M)	☑	☐
2 (No Data Entered)		
3 (No Data Entered)		
4 (No Data Entered)		
5 (No Data Entered)		

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 debilitative 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.

[Close]

Enter a Problem | Code Another Harm | Countability Review | Delete this Maltreatment | Close

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

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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
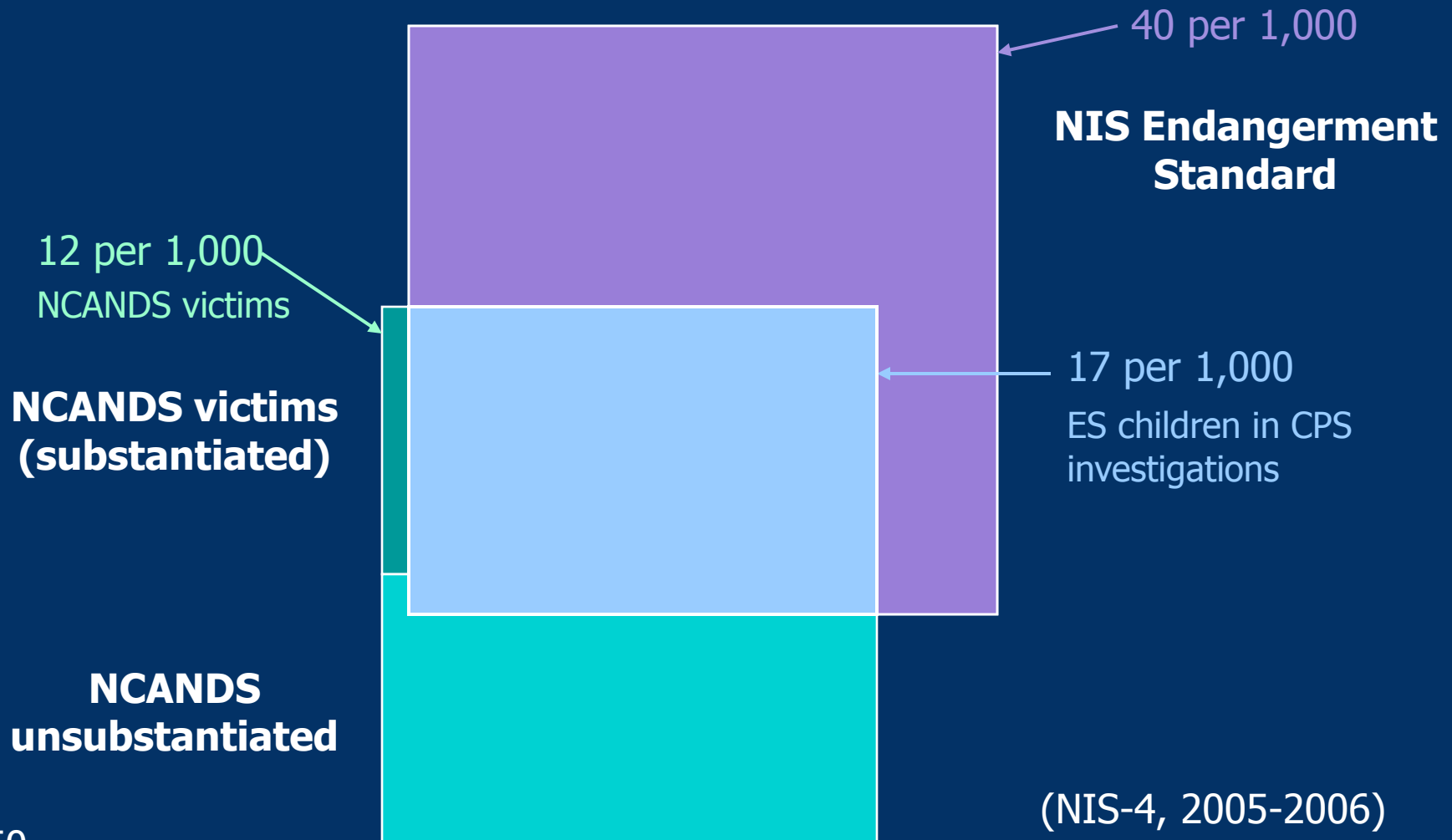
Contents of NIS-4 Public Use File

- *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)
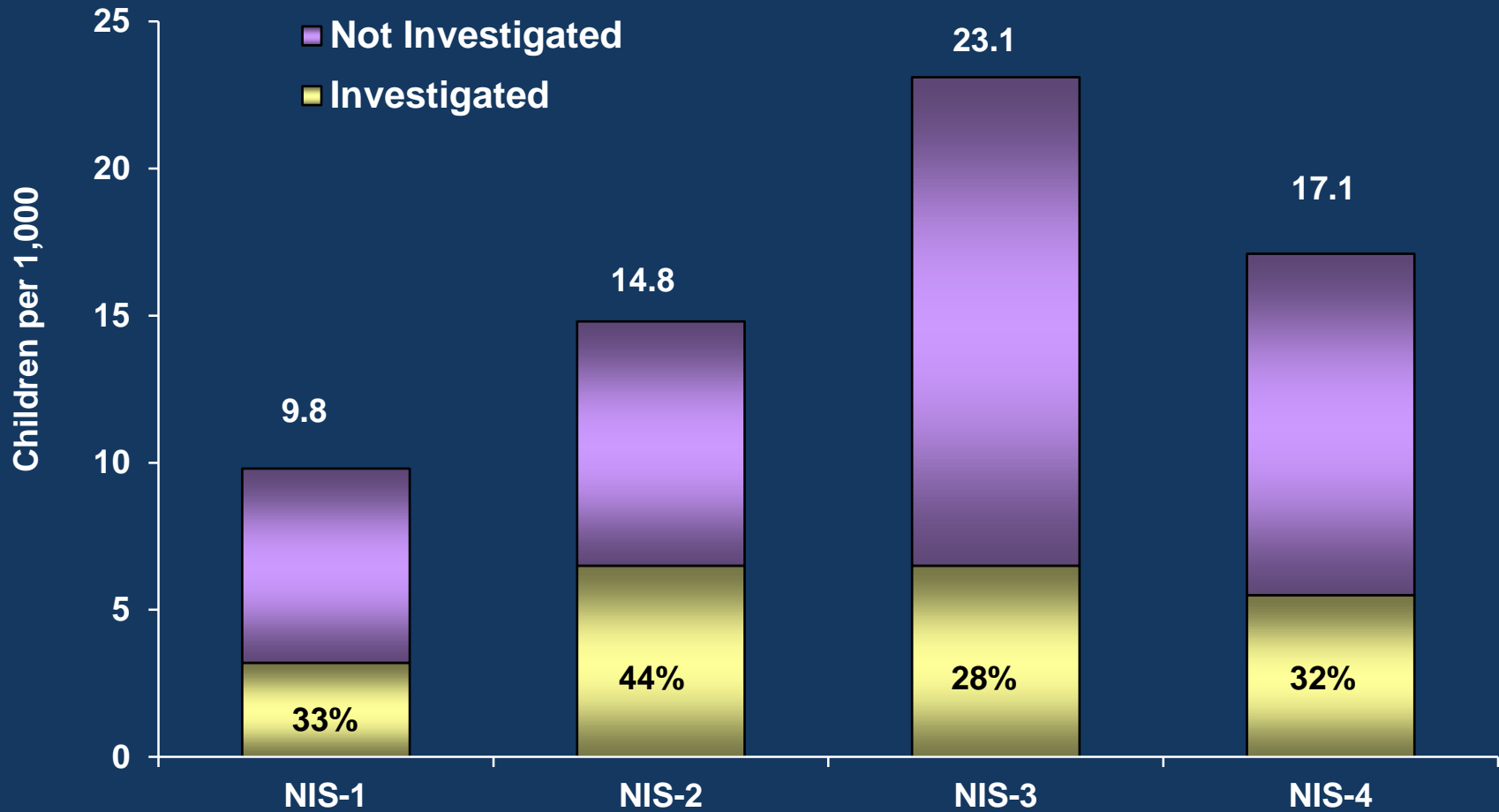
Contents of NIS-4 PUF (Cont'd)

- *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

40 per 1,000

NIS Endangerment Standard

12 per 1,000
NCANDS victims

NCANDS victims (substantiated)

17 per 1,000
ES children in CPS investigations

NCANDS unsubstantiated

(NIS-4, 2005-2006)

CPS Investigation of Harm Standard Maltreatment

Children per 1,000

- Not Investigated
- Investigated

NIS-1	NIS-2	NIS-3	NIS-4
9.8	14.8	23.1	17.1
33%	44%	28%	32%

Supplementary Studies to Help Interpret NIS-4 Findings

Does the short (3-mo) reference period lead NIS to underestimate the extent of CPS investigation?	➢Collect an additional month of CPS data
What cases do sentinels contribute to NIS? How do training & agency policy relate to non-reporting?	➢Sentinel Definitions Study – training, agency policy, definitions, reporting decisions
How do CPS agencies' organization, policies, & practices affect the % uninvestigated?	➢CPS structure and practices - mail survey ➢CPS screening policies – interviews about scenarios

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

How do NIS findings relate to NCANDS data?	➢*NIS-NCANDS Comparison Study on CPS data*
What can explain the NIS findings on race?	➢*Supplementary NIS-4 Race Analyses*
How might the current recession affect the incidence of child abuse and neglect?	➢*Incidence Projections in the 2009 Recession Economy*

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:

$$Rate_i = NIS\ Estimate_i / Census\ Total_i$$

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

NIS-4 Reports & Data
(www.NIS4.org has Link to CW Gateway page)

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