

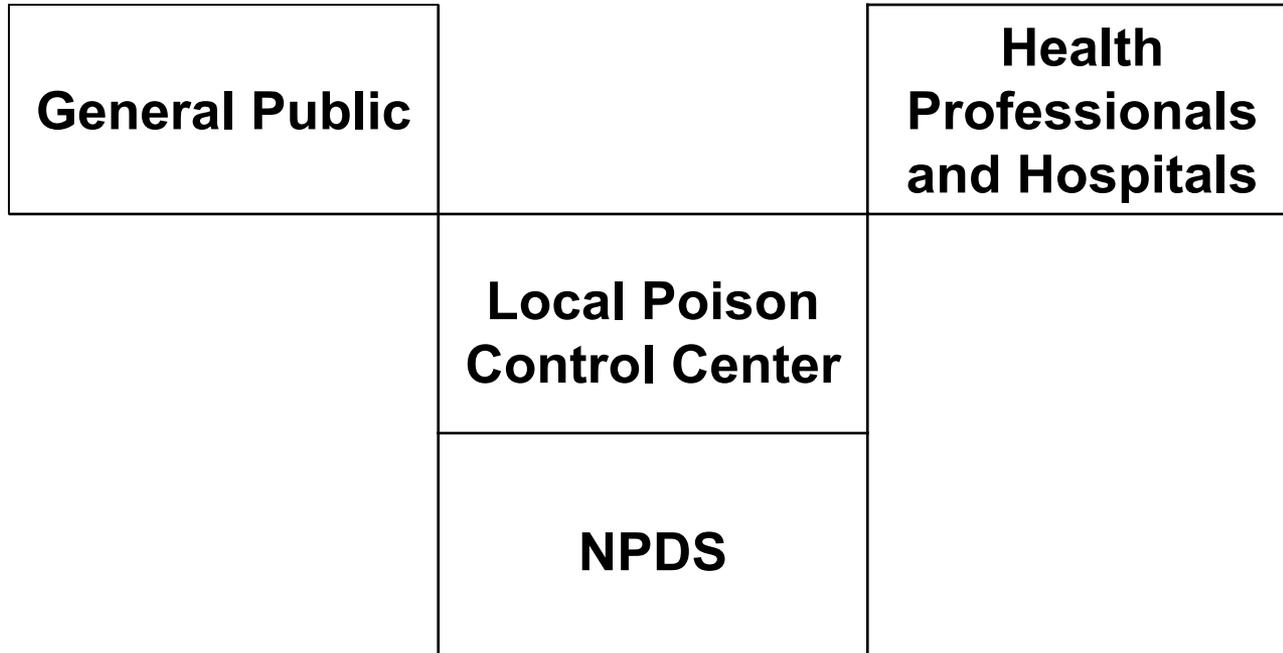
# National Poison Data System (NPDS): Real-Time Documentation and Surveillance

**Paul E. Starr PharmD  
Certified Poison Information Specialist  
Maryland Poison Center  
Baltimore, MD**

**Alvin C. Bronstein MD, FACMT  
Toxicosurveillance Director  
NPDS Steering Committee Chair  
Associate Professor  
University of Colorado Health Sciences Center  
Medical Director  
Rocky Mountain Poison Center  
Denver Health and Hospitals  
Denver, CO**

This presentation was modified from its original format for 508 compliancy.

# NPDS Data Flow



- Data elements include:
  - Time
  - Date
  - Call type
  - Exposure duration
  - Cause of exposure
  - Symptoms
  - Severity
  - Course of action

# AAPCC and 61 Regional Poison Centers

- 61 Certified regional centers
- 24/7 availability
- Varied funding support
- Computerized documentation

## Mission:

- Maintain and/or improve patient outcomes
- Prevent poison exposures
- Reduce healthcare costs

# Regional Poison Centers

- Provides treatment recommendations to the public and health professionals
- Poison prevention education
- Professional education
- Research
- Data collection

# Poison Center Staff

- Certified Specialists in Poison Information (CSPI's): Pharmacists and nurses with specialized training in toxicology
- Director of operations
- Medical toxicologists
- Professional and public educators
- Specialized consultants

# Maryland Poison Center



# Maryland Poison Center Data

<b>Call Types</b>	<b>2006</b>	<b>2007</b>
<b>Exposures</b>	33,006	35,457
<b>Information</b>	28,980	28190
<b>Drug ID</b>	19,490	19,553
<b>Animals</b>	1,676	2,154
<b>Total Calls</b>	63,662	65,804

- MPC Annual Report 2006, 2007

# Exposure Reason 2006

<b>Exposure Reason</b>	<b>2006</b>	<b>%</b>
<b>Suspected Suicide</b>	3,778	
<b>Misuse</b>	649	
<b>Abuse</b>	611	
<b>Unknown</b>	165	
<b>Intentional</b>	5,203	15%
<b>Unintentional</b>	26,603	80%

- MPC Annual Report 2006, 2007

# Management Site

<b>Reporting Site</b>	<b>Number</b>	<b>%</b>
<b>Non-medical site</b>	23,941	72
<b>Healthcare facility</b>	8,296	25

- MPC Annual Report 2006, 2007

# Age vs. Drug Class

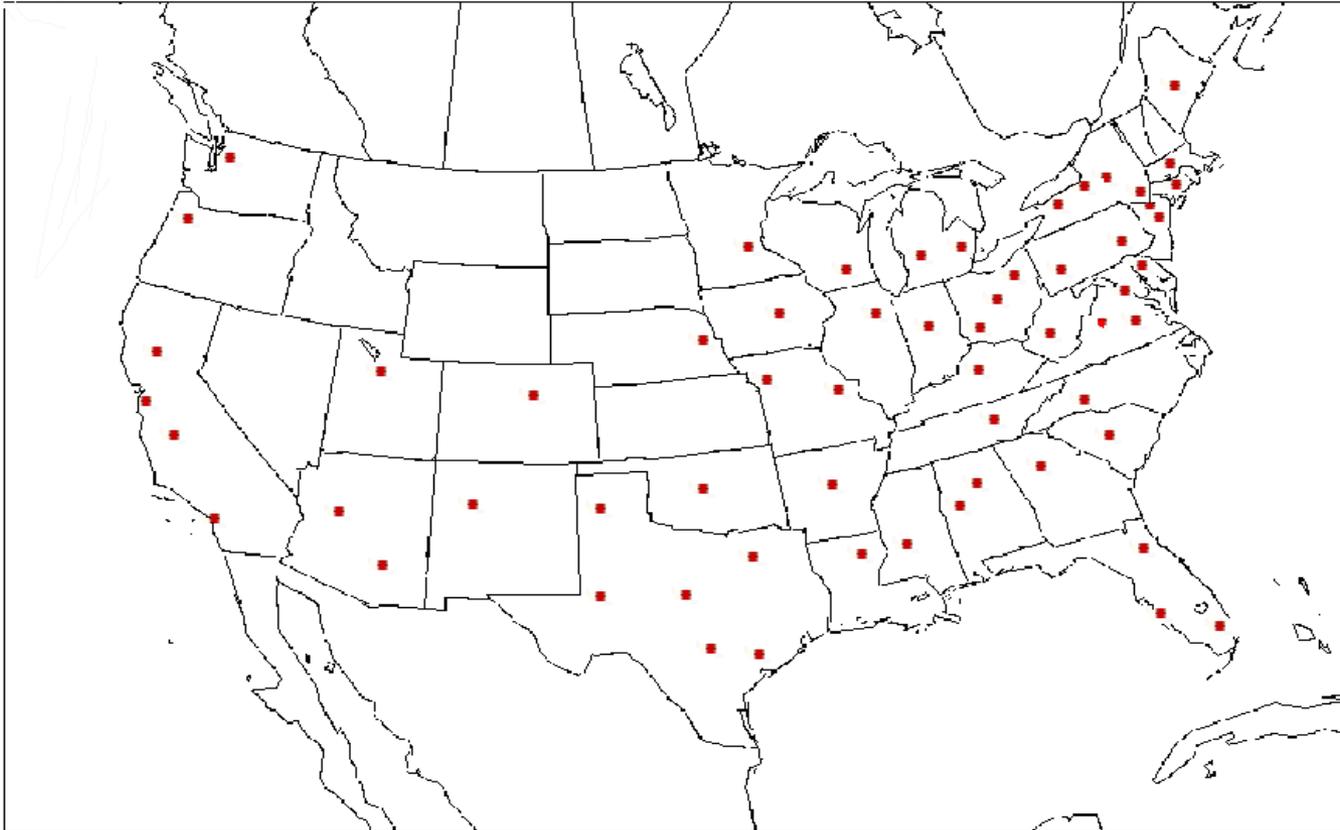
<b>Drug class</b>	<b>Rank (&lt;6 years)</b>	<b>Rank (6-19 years)</b>	<b>Rank (≥20 years)</b>
Analgesics (pain relievers)	4	1	1
Sleep medicines and antipsychotics		4	2
Antidepressants		5	3
Stimulants and street drugs		7	
Alcohols			7

<https://www.npds.us/logon.aspx>

12 April 2006

# 61 US Poison Centers (PCs)

- All 50 States, Puerto Rico, US Virgin Islands, 3 Pacific Jurisdictions



# National Poison Data System (NPDS)

- **Near-real time poison data system**
  - **Linked to PC Online product database**
  - **Never before access and exposure tracking possible**
  - **Enhances public health response**
- **Real-time statistics**

<b>Year</b>	<b>Exposures</b>	<b>Information Calls</b>
<b>2006</b>	2.4 M	1.5 M
<b>2007</b>	2.6 M	1.6 M
<b>2008 Year to Date</b>	1,521,348	1,001,155

- Bronstein AC, Spyker DA, Cantilena LR, Green JL, Rumack BH, Heard SE. 2006 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS). Clinical Toxicology, 45:8, 815 – 917. Available ONLINE at AAPCC.ORG

# What Can NPDS Do?

- Real-time database
  - Uploads PC data every 11 min
- Surveillance
  - Compares real-time data to historical database, looking for anomalies
  - Automatically flags cases with symptoms consistent with case definitions

# Surveillance Methods

- **Call Volume**

- Number of calls per time period of interest
- Threshold: historical baseline average + (N) SDs

- **Clinical Effects (signs and symptoms)**

- Symptoms during 24 hour period
- Threshold: historical baseline average + (N) SDs

- **Cased-based definitions**

- Case definition based on clinical effects
- Occurrence of specific chemicals, toxins, or products

# National Poison Data System



Poison center personnel include medical toxicologists, clinical toxicologists and specialists in poison information.

User Name:

Password:

Logon

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Since 1953, poison centers have been making a positive contribution to public health in the United States.

The goal of poison centers is to reduce morbidity and mortality due to poisoning.

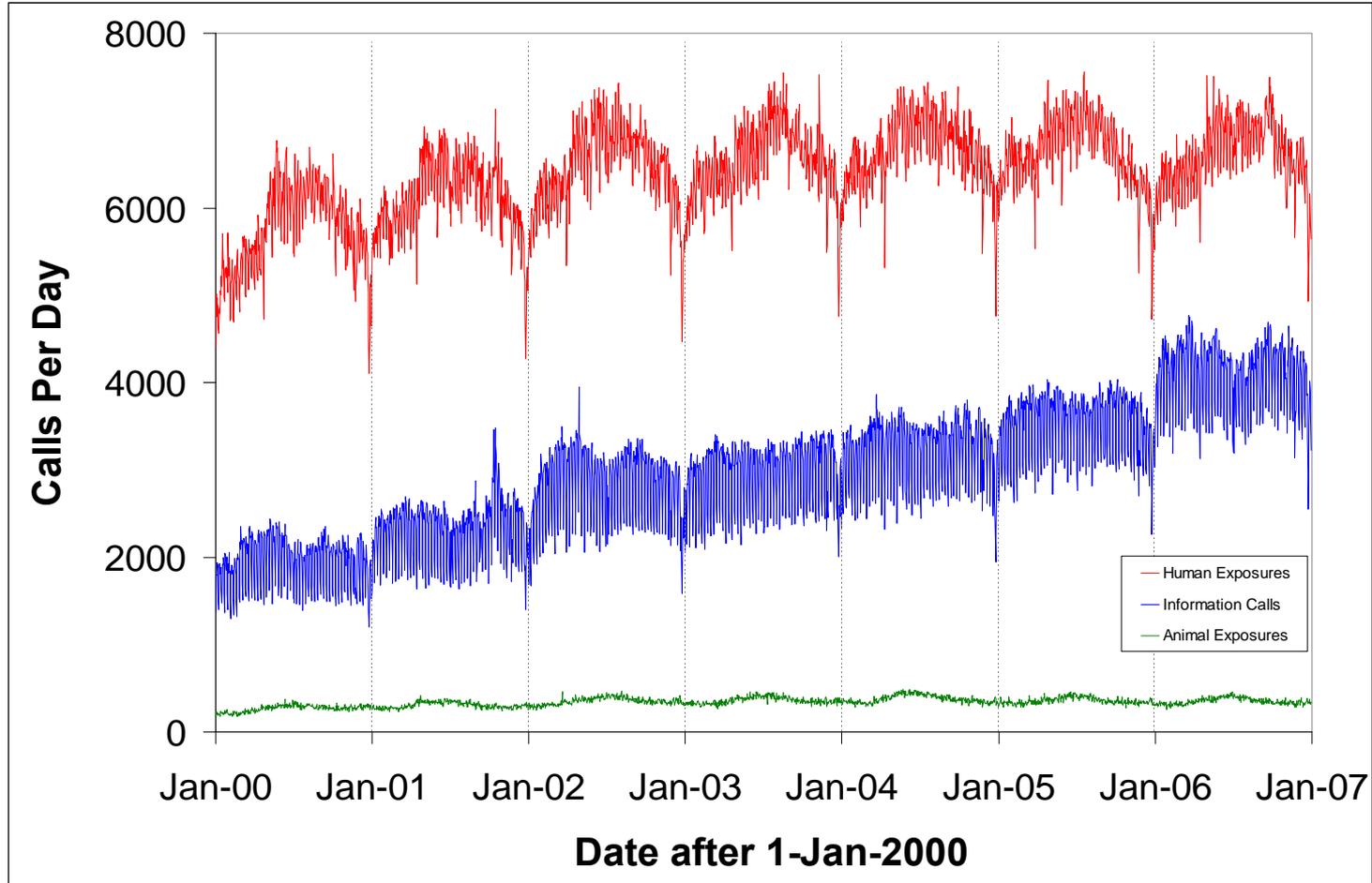
It is clear that poison centers accomplish this goal while simultaneously decreasing the cost of health care.

If you have a poisoning emergency, call

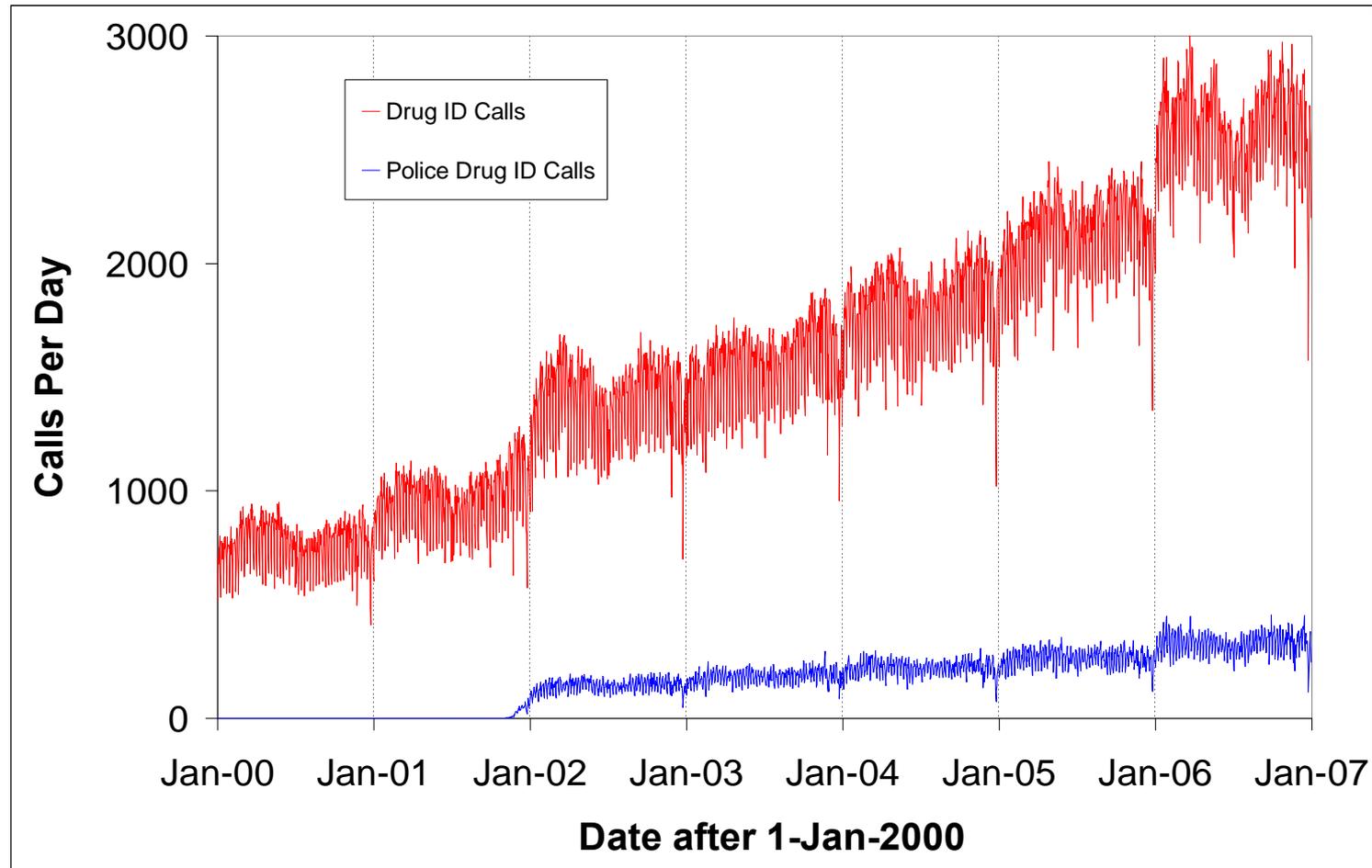


If the victim has collapsed or is not breathing, call 911.

# NPDS Data - Human Exposures, Information Calls and Animal Exposures



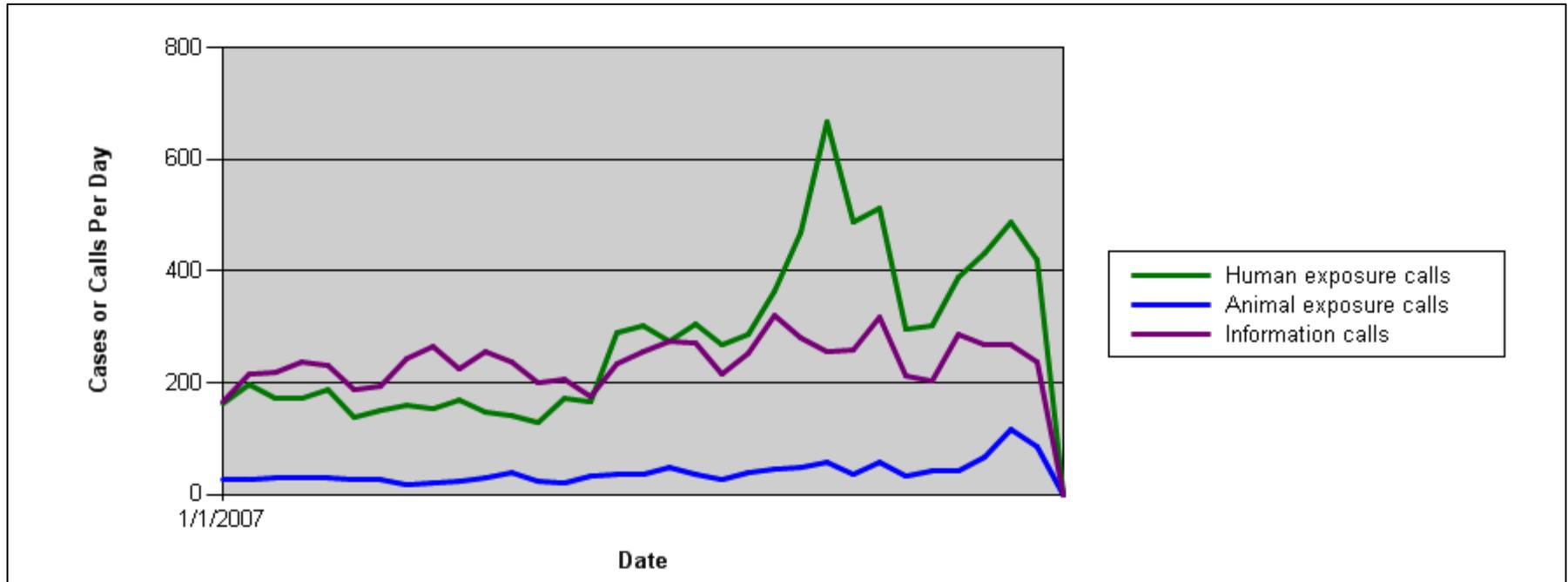
# National Data: Public and Law Enforcement Drug Identification Calls



# NPDS Outbreak Tracking

- Case finding during an event (Situational Awareness)
- Previous Responses
  - Contaminated Water
  - Melamine in dog food
  - Diethylene glycol in toothpaste
  - E. Coli in spinach
  - Salmonella in peanut butter
  - Recall of improperly labeled Sindoor
  - Recall of supplement with high concentrations of selenium
  - Illicit fentanyl exposures

# Call Volume Example



# NPDS

% Workplace Exposures	2006		2007	
	Total	%	Total	%
Amphetamines	15,139	1.3	14,743	1.3
Barbiturates	2,743	1.6	2,724	2.1
Benzodiazepines	69,268	0.7	73,198	0.6
Cocaine	7,746	0.4	7,641	0.3
Oxycodone	13,473	1.3	14,900	0.8
Stimulants and Street Drugs	46,239	0.8	45,818	0.6

# Summary

- NPDS is a national Real -Time Exposure Tracking System
- Selenium, fentanyl and other outbreak investigations demonstrate the utility of using NPDS for case tracking
- Collaboration and coordination between state health departments, PCs, FDA, EPA and CDC
- Future Expansion
  - National workplace and drug trending
  - National Adverse Event Reporting System

<https://www.npds.us/logon.aspx>

12 April 2006