

Unintentional Strangulation Deaths from the “Choking Game” Among Youths Aged 6-19 Years – United States, 1995-2007

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Source: Personal photograph published with permission from parent

What is the choking game?

- **Self-strangulation or strangulation by others using hands/noose to achieve brief euphoric state caused by disrupting blood supply to brain**
 - Euphoria described as dreamy, floating
- **Nooses include belts, ropes, scarves, bungee cords, dog leashes, computer cords, shirts**
- **Usually played by youth**
 - Learned through peers

Other names for the choking game

- Pass-out game
- Space monkey
- Suffocation roulette
- Scarf game
- The American dream
- Fainting game
- Something dreaming game
- Purple hazing
- Blacking out
- Blackout
- Dream game
- Flat liner
- California choke
- Space cowboy
- Airplaning
- Purple dragon
- Cloud nine

Background

- **Family practice MD, whose son died from choking game, sent letter, documents to Injury Center:**
 - **Media reports**
 - **Scientific literature case studies**
 - **2006 Ohio county youth survey (n=367)**
 - **11% of 12-18 y.o. had played choking game**
 - **19% of 17-18 y.o. (senior year of high school)**
 - **2007 Ontario Student Drug Use and Health Survey (OSDUHS) (n=6,323)**
 - **7.4% of 7th- 12th graders had played choking game**

Potential Data Sources

- **No code for asphyxial games in Vital Statistics**
- **Other data sources explored:**
 - **National Violent Death Reporting System (NVDRS)**
 - **Consumer Product Safety Commission (CPSC) death investigations**
 - **National Electronic Injury Surveillance System-All Injury Program (NEISS-AIP)**
 - **Child Death Review from one state**
- **Identified ≤ 2 deaths from choking game**

Methods

- **Two sources of media reports were used to identify cases:**
 - **LexisNexis search of newspaper reports since the 1970s for “choking game,” related names**
 - **Google search of media reports of deaths listed on two choking game awareness websites not found in LexisNexis**

Case definition

- **A death, described by a media report, resulting from self-strangulation or strangulation by another person in which the choking game, or the game by other names, is cited as a potential cause**

Exclusion Criteria

- Any mention of autoerotic asphyxiation
- Medical examiner ruled death as suicide or undetermined intent AND no mention of evidence of choking game
- Age of decedent missing
- Older than 19 years at time of death
- Death outside U.S.

Autoerotic asphyxiation

- **Definition: A form of sexual masochism usually engaged in by older adolescents, young adults**
 - **Oxygen flow to brain is reduced, by controlled strangulation or suffocation, in order to enhance the pleasure of masturbation**
- **Differs from choking game**
 - **Children usually pre-teens or early teens**
 - **Children found in street clothes**
 - **Hanging from bedpost, doorknobs**
 - **Descriptions more akin to high from drugs**

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Evidence of choking game

- Anecdotal evidence from peers that youth played game prior to death
- Anecdotal evidence of peers in community playing game at social functions
- Notes or diary descriptions of the game
- Warning signs of choking game observed by parents prior to death
 - Most parents did not recognize at time

Warning Signs

- **Discussion of game or other names**
- **Unexplained:**
 - **Bloodshot eyes**
 - **Marks on the neck**
 - **Frequent, severe headaches**
 - **Increased irritability or hostility**
 - **Ropes, scarves, belts tied to bedroom furniture, doorknobs, knotted on floor**
 - **Presence of dog leashes, choke collars, bungee cords, etc.**

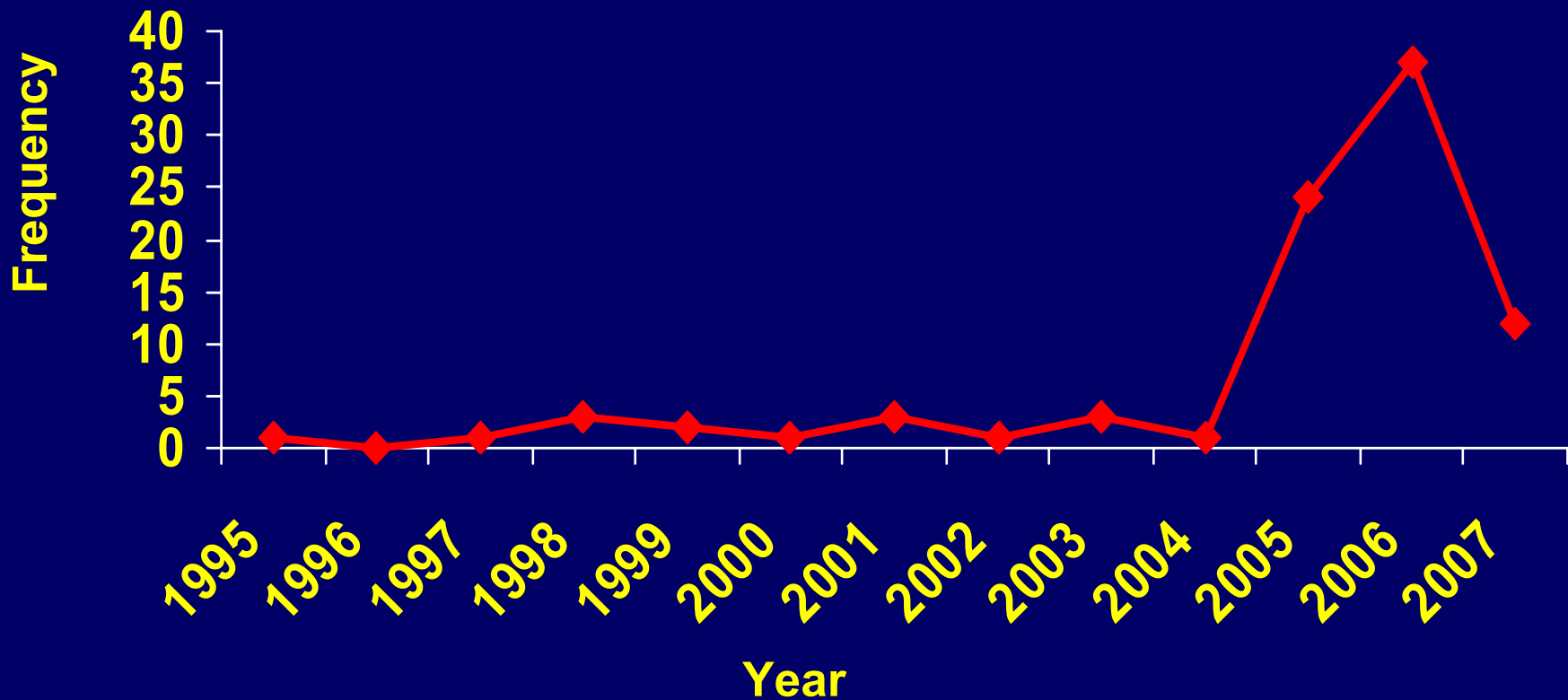
Results

- **106 reports of deaths that referred to the choking game**
 - **17 deaths excluded:**
 - **13: medical examiner ruling suicide or undetermined AND no evidence of choking game in report**
 - **3: evidence of autoerotic asphyxiation**
 - **1: no age was reported**
- **All analyses conducted on remaining 89 probable choking-game deaths**

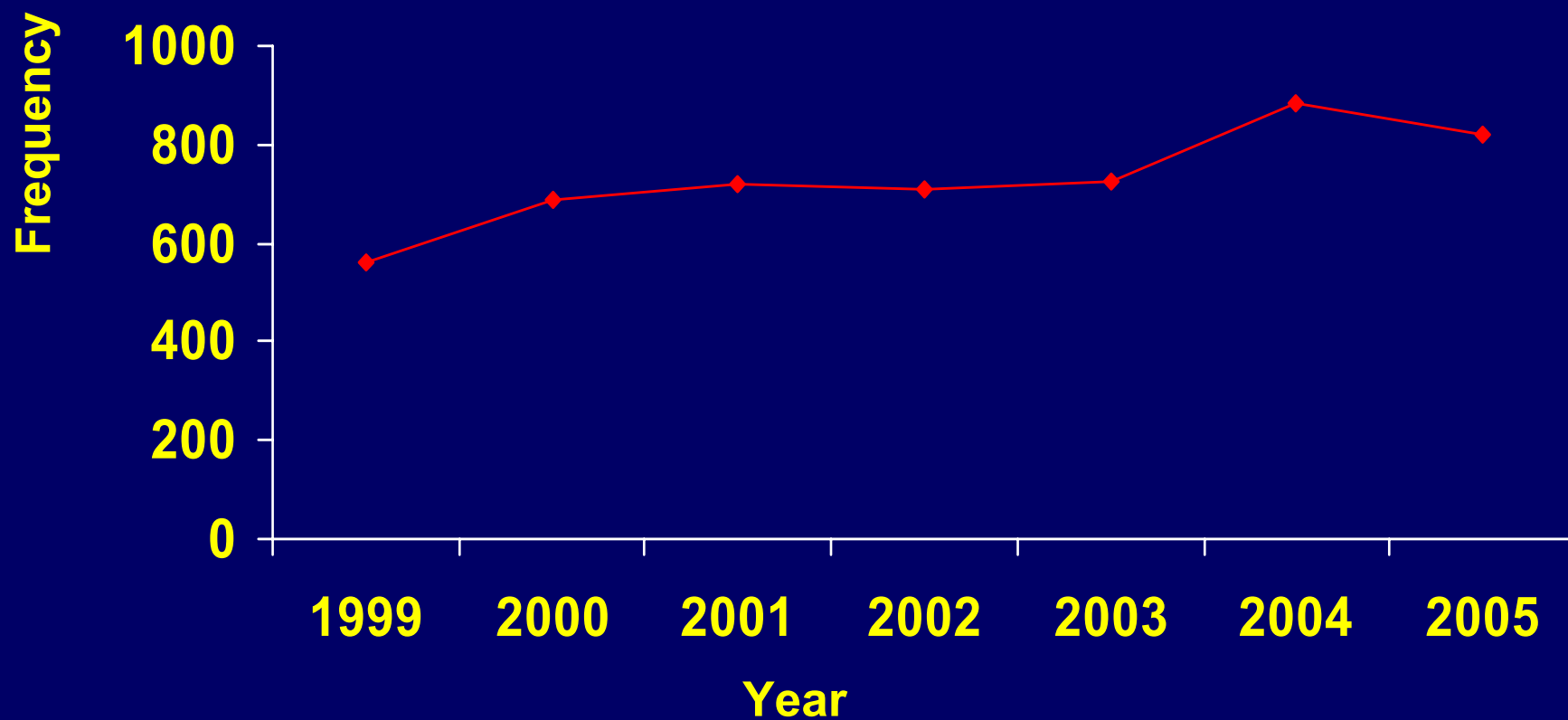
Results

- **Gender: 77 boys (86.5%)**
- **Age: Range: 6-19; Mean: 13.2; Median: 13**
- **For deaths with sufficient detail reported:**
 - **72/75 (96.0%) occurred while youth played alone**
 - **42/45 (93.3%) parents unaware of choking game until death of their child**
- **30/89 (33.7%) parents saw warning signs prior to death, but did not recognize as such**

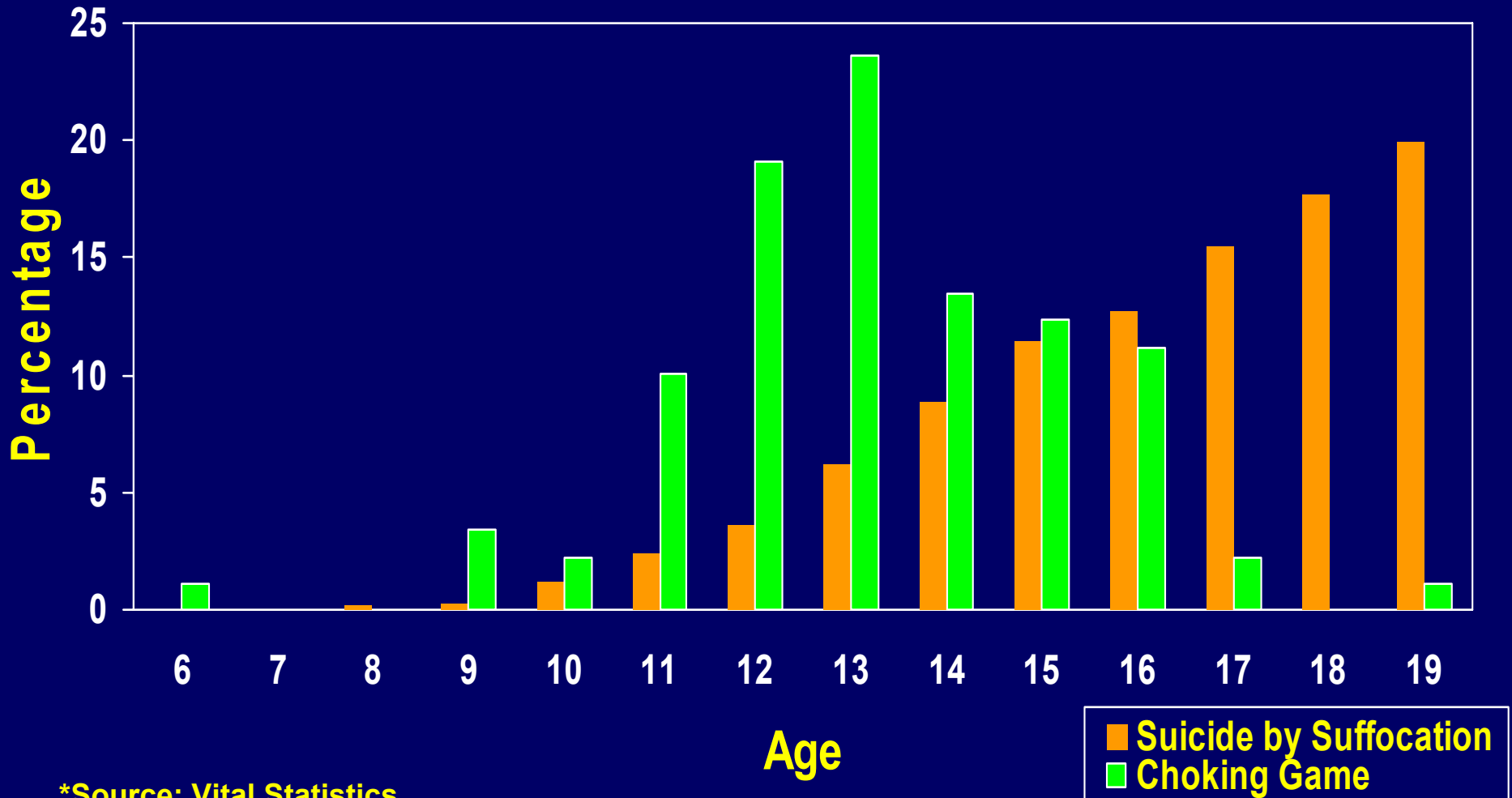
Probable choking-game deaths by year, 6-19 years, 1995-2007, United States



Suicide by suffocation deaths by year, 6-19 years, United States (Vital Statistics)



Percentage of deaths from the choking game (1995--2007) and suicide by hanging/suffocation (1999--2005)*, 6-19 years, United States



*Source: Vital Statistics

Results

- **No geographic clustering; deaths in 32 states**
- **No seasonal or daily variation**
- **Ruling on cause of death in 46.1% of deaths**
 - **Unintentional/Accidental: 61.0%**
 - **Suicide: 26.8%**
 - **Undetermined Intent: 12.2%**

Sources of Media Reports

	Reported in LexisNexis	Not Reported In LexisNexis	
Reported on Websites	43	36	79
Not Reported on Websites	10	?	
	53		89

Discussion

- **Vast majority of deaths were boys**
- **Age distribution different than suicide by hanging**
 - **Suggests different phenomena**
- **Nearly all children played alone suggesting solitary play particularly dangerous**
- **Increase in number of reports in 2005, decrease in 2007 unexplained**

Limitations- Use of media reports

- **Low sensitivity, specificity**
 - Sensitivity has ranged from 13% - 96%
 - Utility of LexisNexis?
- **Some may be coded as suicides**
- **Cases not reported for family privacy concerns**
- **No ability to assess nonfatal injuries**
 - Retinal damage, fractures, neurologic damage
- **No ability to assess psychosocial factors**
 - Family composition, mental health, drug use
- **Strength: timely, detailed**

Recommendations

- Parents, health care providers, educators become aware of warning signs
- Medical examiners be aware of choking game as possible explanation of deaths from hanging
- Mortality, behavioral surveillance to determine risk factors, prevalence
- Continued examination of media cases to identify trends
- Rename phenomenon to not include word “game” - strangulation activity?

Acknowledgements

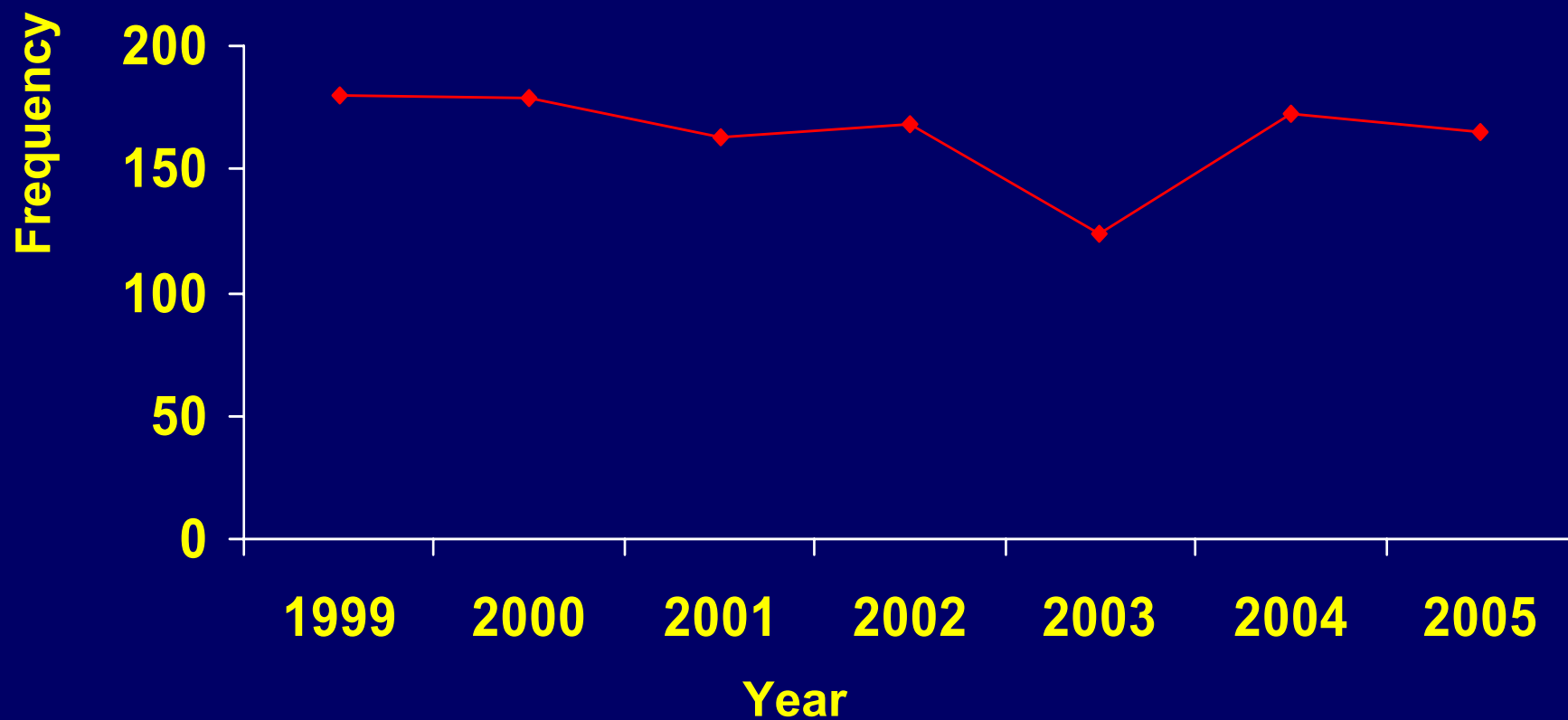
- **Centers for Disease Control and Prevention**
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- **MultiCare Health System, Tacoma, WA**
 - Patricia Russell

Thank you!

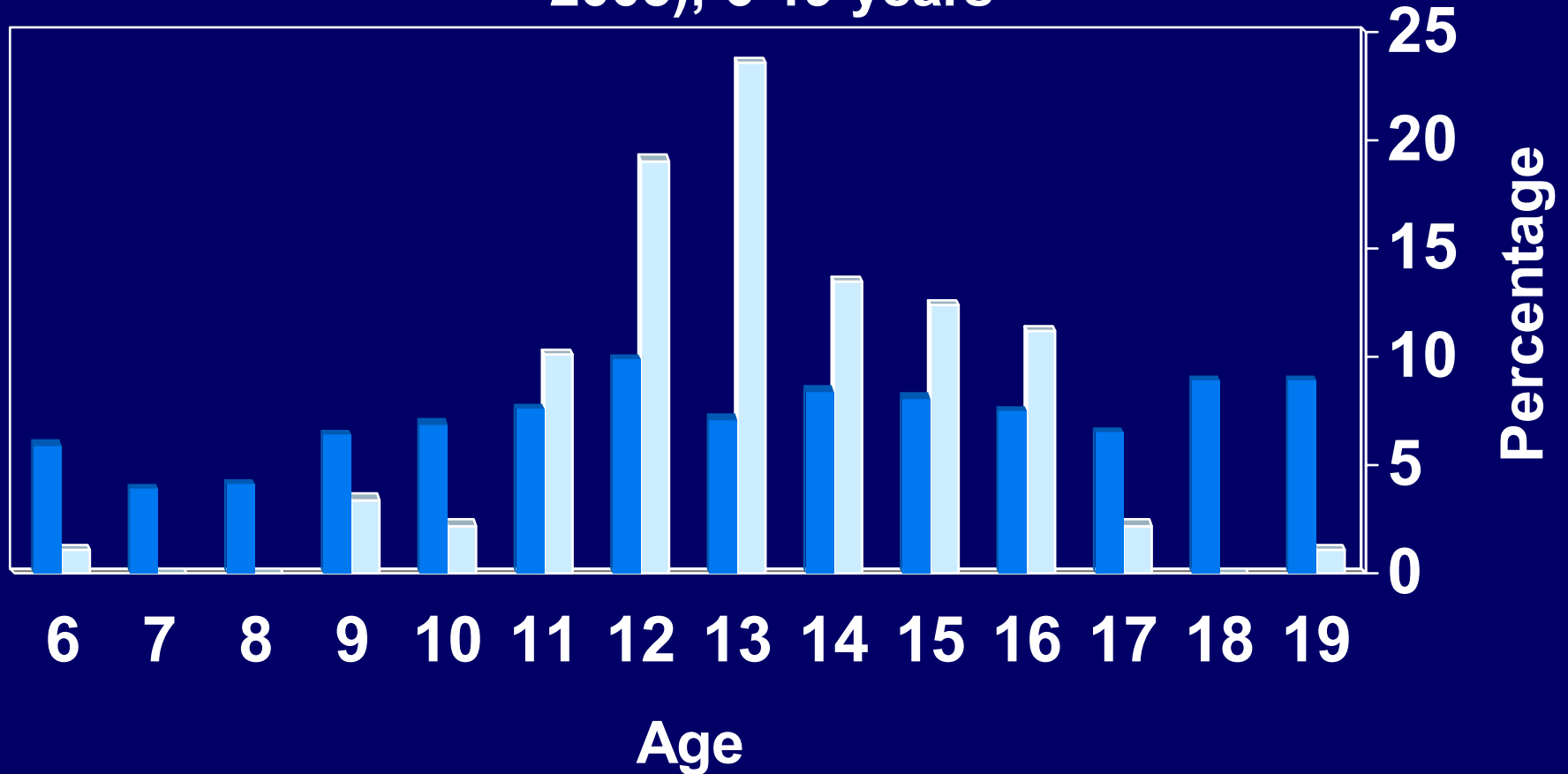
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- **Disclaimer: The findings and conclusions in this report are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry.**



Unintentional suffocation deaths by year, 6-19 years, United States (Vital Statistics)



Percentage of deaths from the choking game (1995--2007) and unintentional deaths by hanging/suffocation (1999--2005), 6-19 years



■ Unintentional Suffocation ■ Choking Game