

INTRODUCTION:

This report describes the circumstances and means by which children and youth are harming themselves as presented to British Columbia's Children's Hospital Emergency Department.

The aim of this study is to continue the investigation of intentional injury among children and youth aged 5 to 19 years in BC.

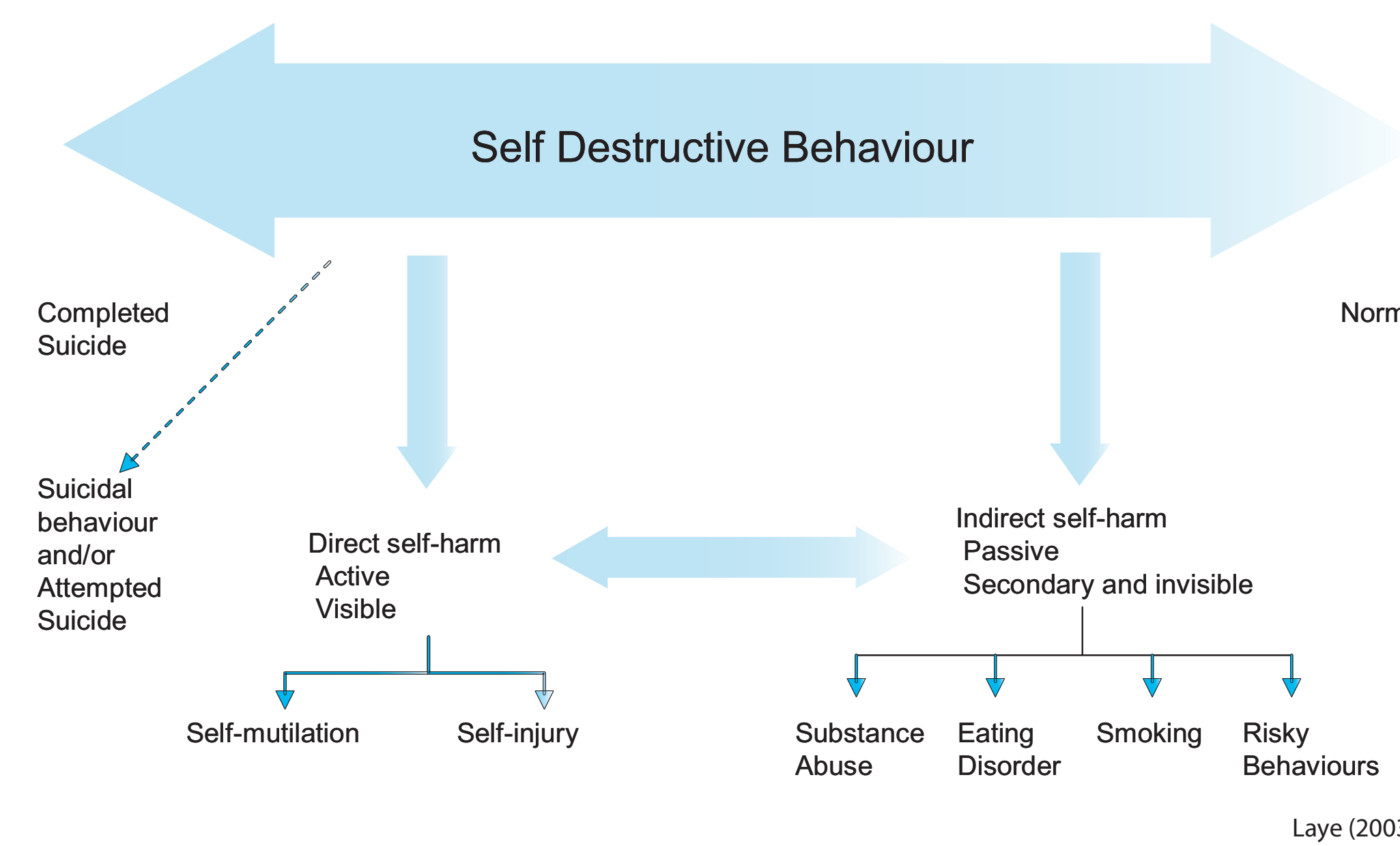
Deliberate self-harm is recognized as a distinct set of practices separate from suicide attempts or gestures (Harris, 2000).

METHODS:

Using the BC CHIRPP database, cases coded as intentional self harm were selected and analyzed for the years 1997 to 2002, ages five years and over.

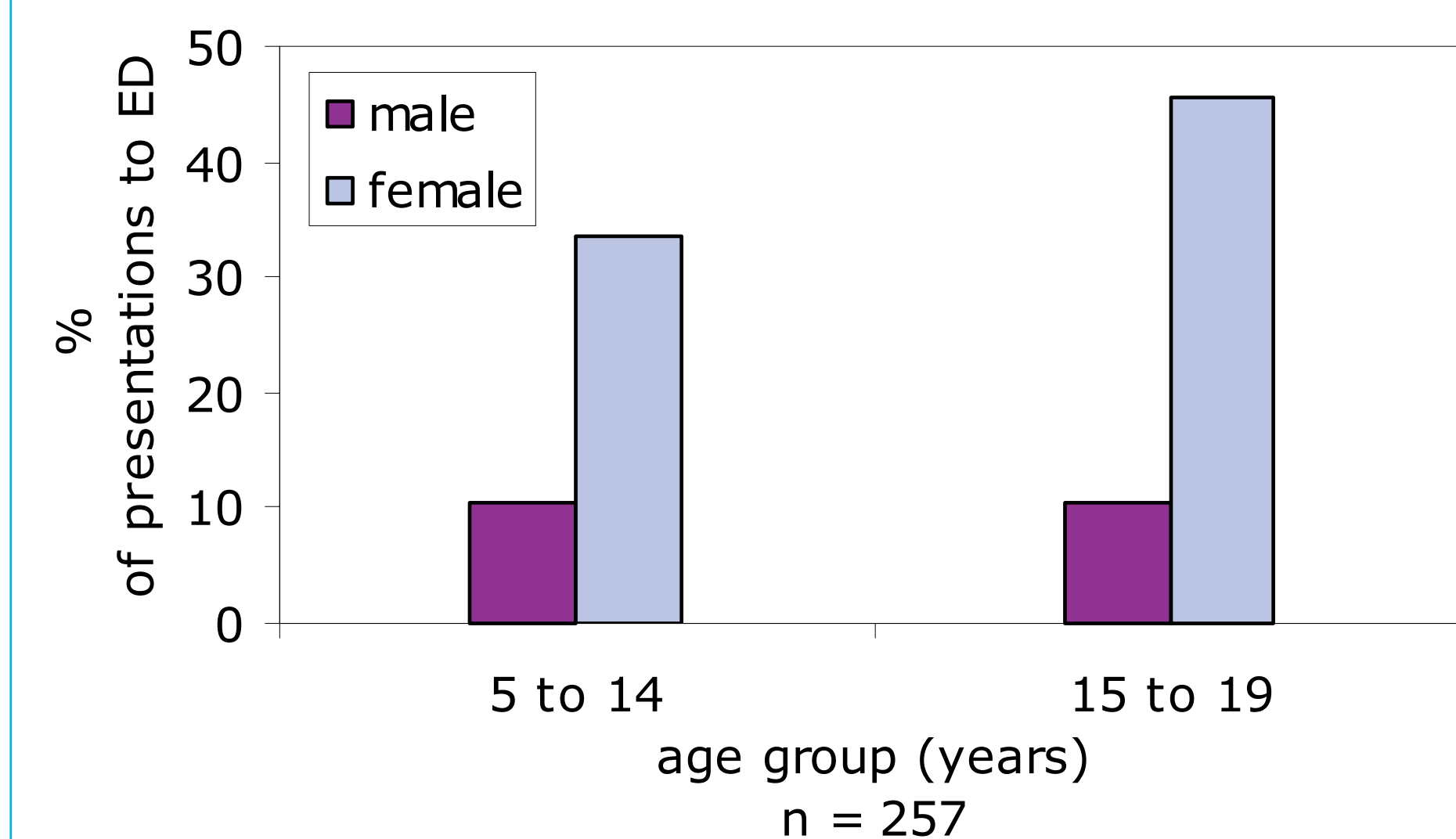
Descriptive analysis have been provided for the dataset as a whole, as well as subdivided into the following five categories:

- suicide attempts
- suicide gestures
- cuttings
- ingestions
- burns and hanging

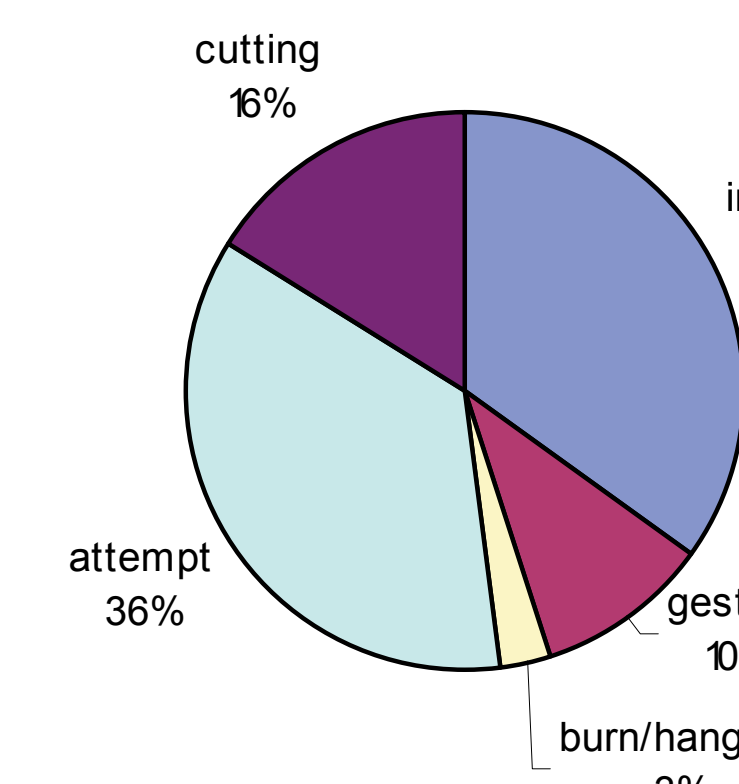


Laye (2003) has described a continuum of self-destructive behaviour, ranging from "normal" to "completed suicide", and includes behaviours that are active and direct efforts at self harm which result in visible injury, as well as indirect self-harm which are more passive and which may result in secondary and invisible injury.

Overall



Percentage of Self Harm by type, ages 5-19 years, CHIRPP 1997-2002



Percentage of self harm by type, excluding hangings and burns, by age group (years), CHIRPP 1997-2002



DISCUSSION:

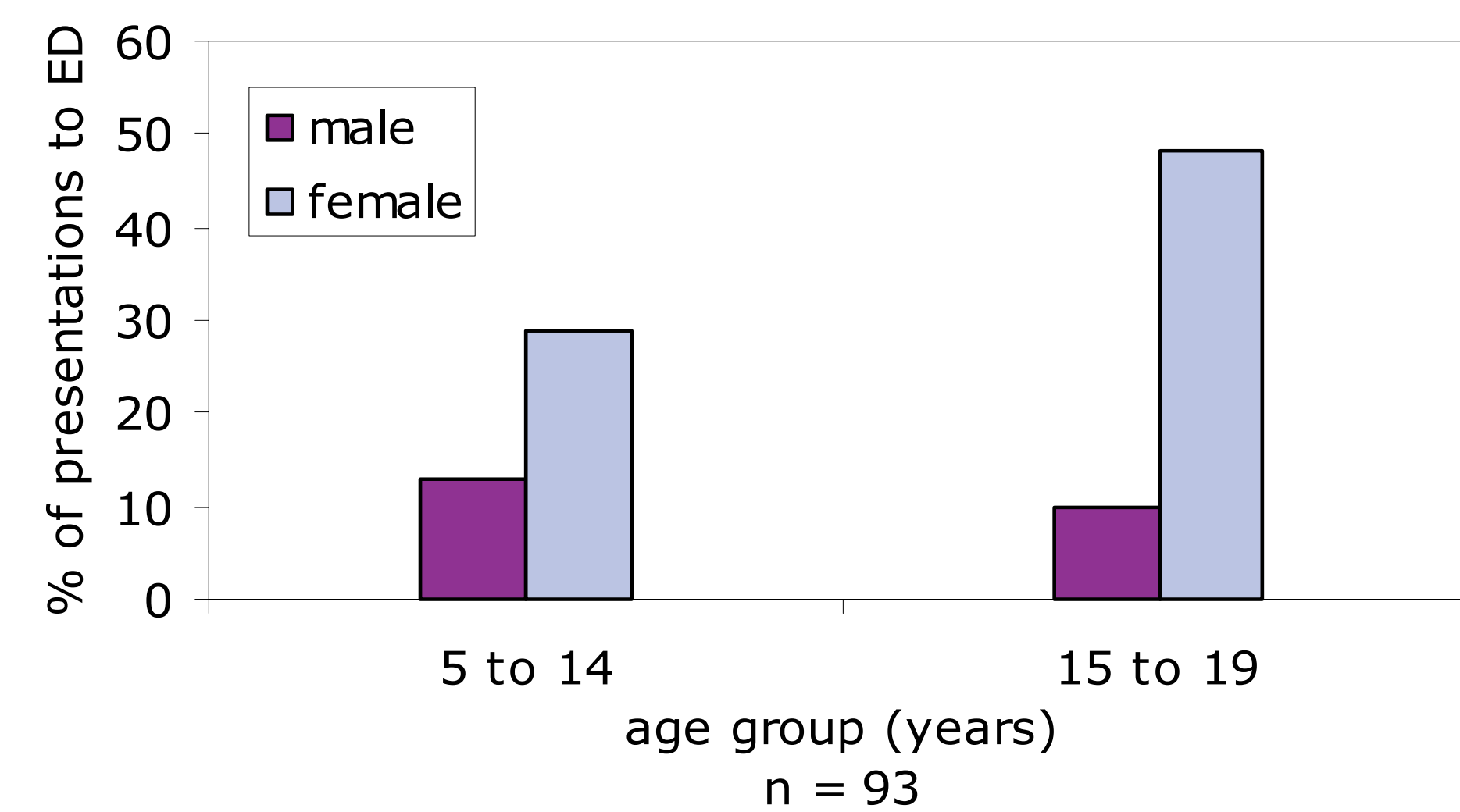
Intentional injury is one of the leading causes of death, hospitalization and emergency department visits among children and youth.

This study provides detailed epidemiological information about deliberate self-harm cases in children and youth seeking treatment at the emergency department at BC Children's Hospital over a six year period, including those linked to suicide.

From January to September 2003, there have been an additional 23 cases of ingested substances, 10 cuttings, less than five suicide gestures, and eight suicide attempts.

Further investigation is warranted to determine the full extent of the problem in BC, as well as to explore treatment options for youth and support for their families.

Suicide Attempts



Location:

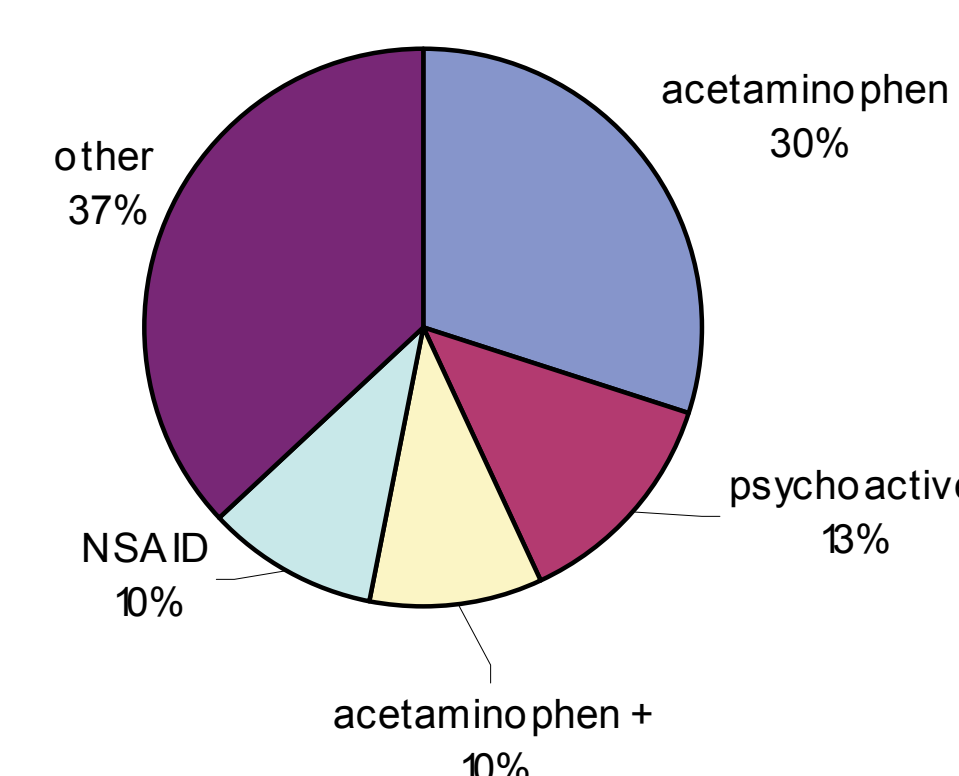
- Predominantly at home (49.5%)

Mechanism of Injury

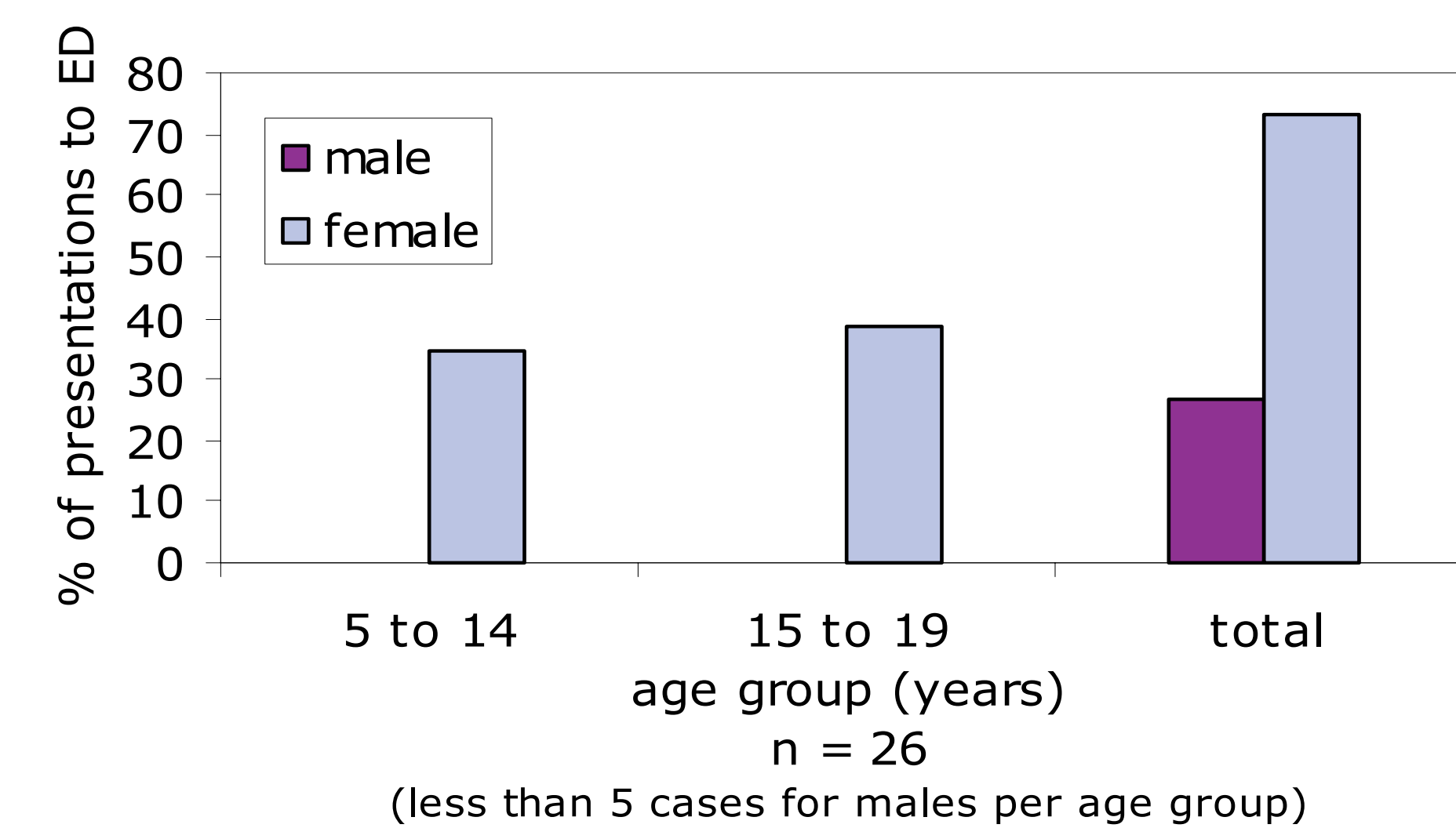
- Ingestion (75.3%), 30.0% of these acetaminophen alone
- Cutting (14.0%), using knives (46.1%), razors/shavers and scissors
- Strangulation (5.4%), involved belts, clothing, rope/string and pet supplies

A total of 80.6% of injuries from attempted suicide were classified as poisoning or toxic effect, followed by open wounds of the forearm or wrist (12.9%).

Percentage of suicide attempts by ingestion, by substance, ages 5-19 years, CHIRPP 1997-2002



Suicide Gestures



Location:

- Predominantly at home (61.5%)

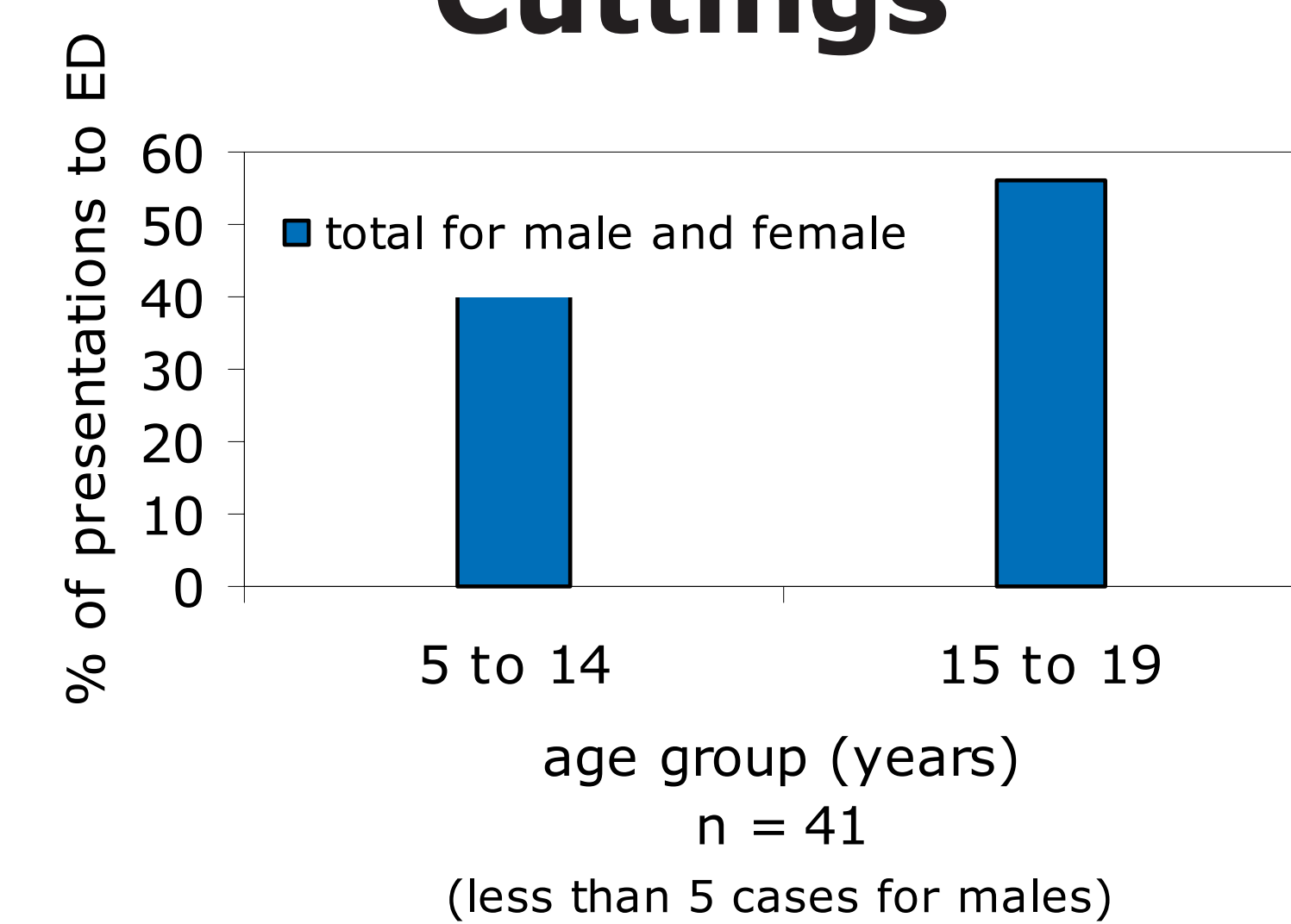
Mechanism of Injury:

- Ingestion (73.1%), 26.3% of these acetaminophen
- Cutting (26.9%), using razors/shavers, safety pins, nails/screws/bolts/tacks, glass or mirrors

A total of 69.2% of injuries from suicide gestures were classified as poisonings or toxic effect, followed by open wounds of the wrist or lower leg (19.2%).

The remaining included superficial injuries or no injury detected.

Cuttings



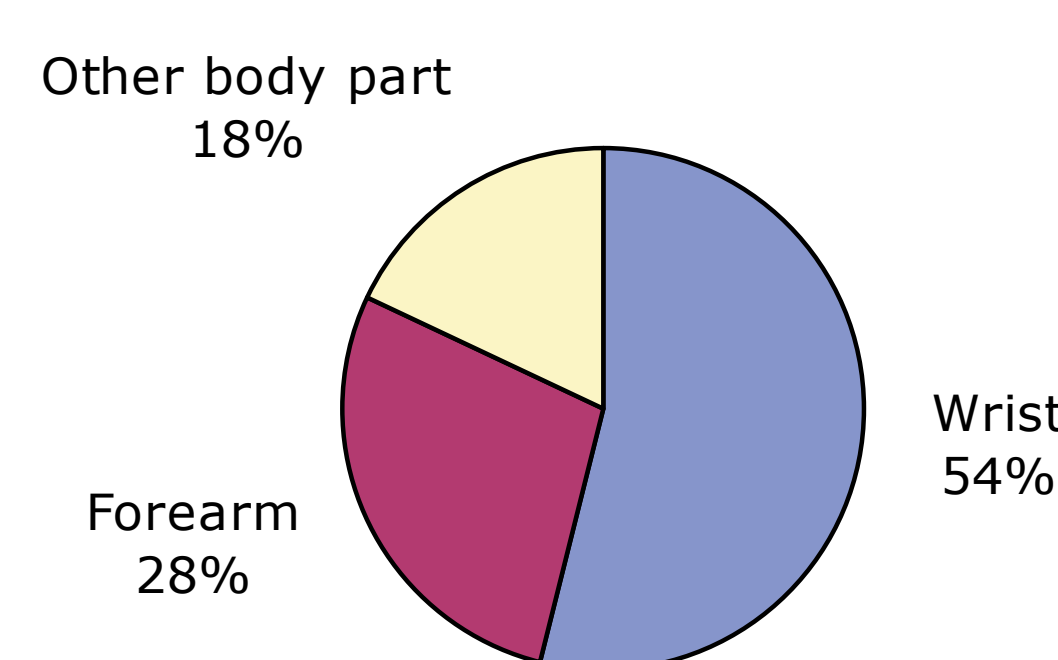
Location:

- Predominantly at home (31.7%)
- Institutional home (19.5%)
- Hospital (17.1%)

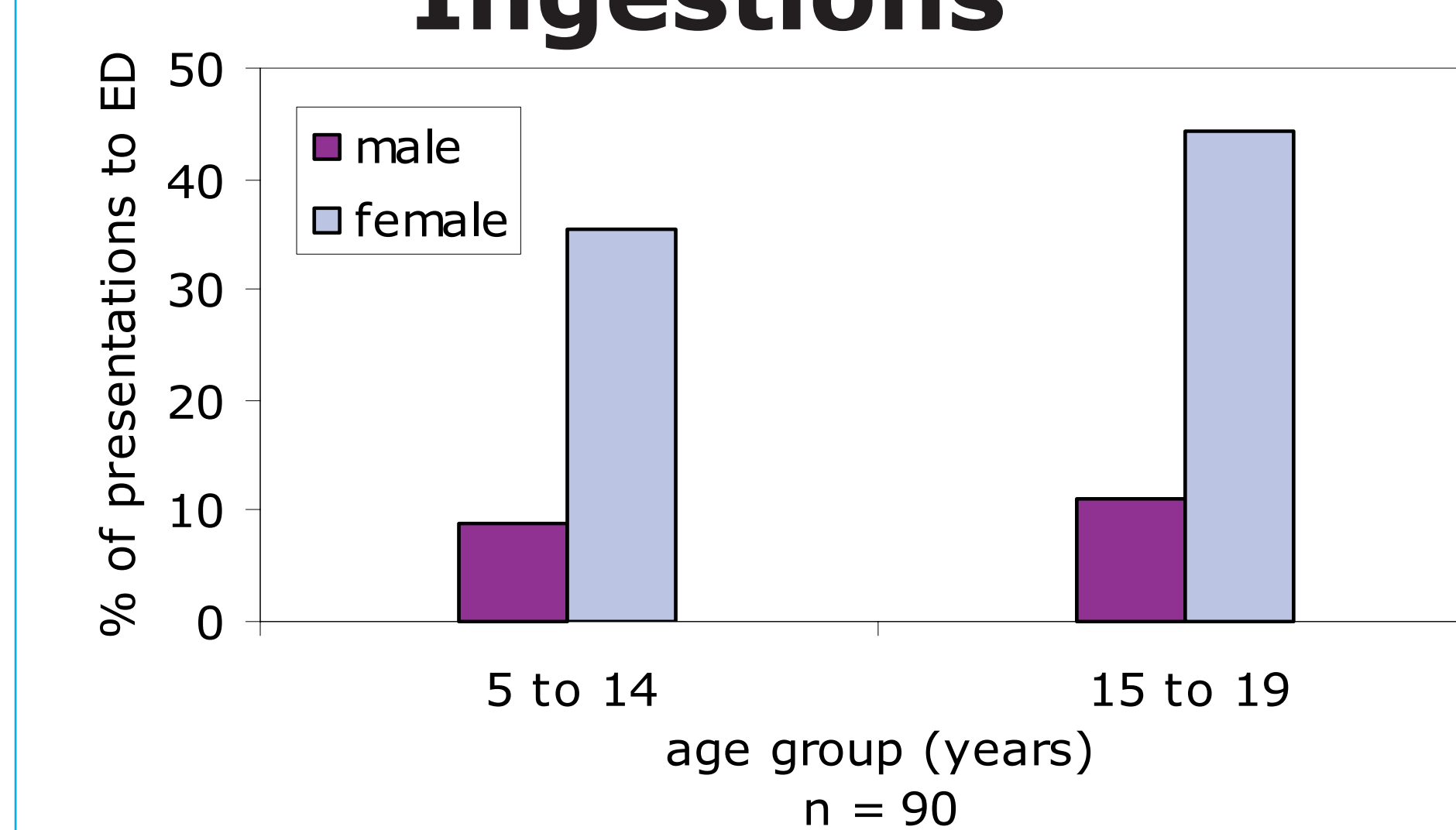
Cutting Implement

- Razor/shaver (36.6%)
- Knife (26.8%)
- Other (17.1%) including pins/needles, scissors and glass

Percentage of cutting cases by body part, ages 10-19 years, CHIRPP 1997-2002



Ingestions



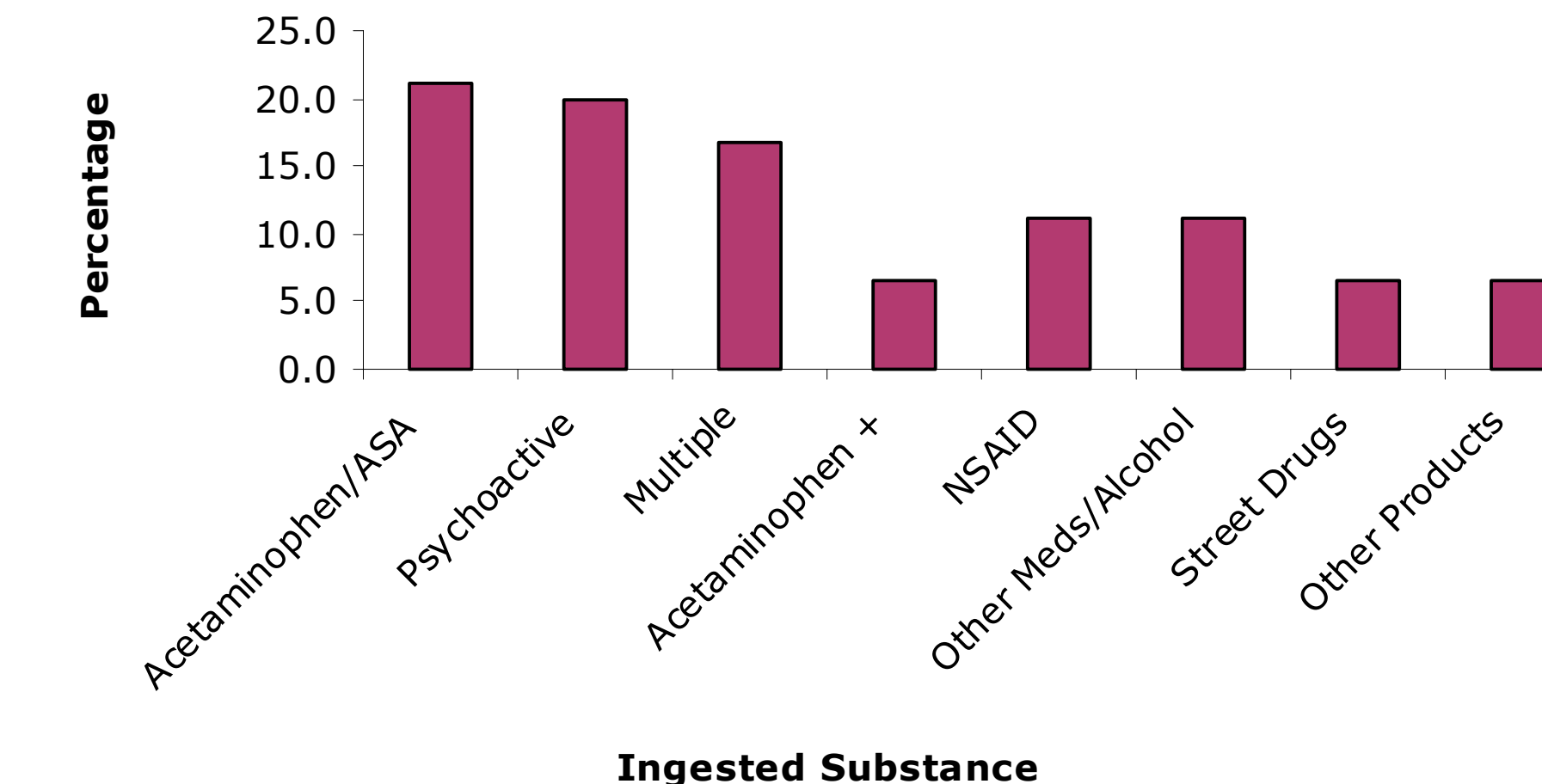
Location:

- Predominantly at home (41.1%)
- In other homes, institutional homes/hospital, school, and on highway/other road (5.6% each)

Ingested

- Predominantly multiple medications (23.4%) including combinations with acetaminophen, acetaminophen/ASA alone (21.1%), and psychoactive medications (20.0%)
- Other products include antifreeze, cleaning products, liquid/solid fuels, topical medication, small rocks/stones/gravel, and unknown

Percentage of ingestion-related cases by ingested substance, ages 10-19 years, CHIRPP 1997-2002



Burns & Hanging

Among the self harm cases in the BC CHIRPP database, there were six hangings and fewer than five burn cases from 1997-2002.

Visit Disposition

Of all BC CHIRPP self-harm cases, patients were most likely to be admitted to hospital for:

- Suicide attempts (60%)
- Ingestions (not classified as a suicide attempt or gesture) (50%)
- Suicide gesture (31%)
- Cutting (not classified as a suicide attempt or gesture) (17%)

LIMITATIONS:

CHIRPP data collection of the event description is self reported by the patient, or reported by proxy by a parent or guardian, or taken from the chart, and therefore may not accurately portray the true circumstances. Also, older teens do not always present at paediatric hospitals and the age group above 15 years may be under represented.

WHAT IS CHIRPP ?

- The Children's Hospital Injury Reporting and Prevention Program (CHIRPP) was developed in 1990 for the purpose of providing a unique source of information concerning the details of an injury or poisoning.
- CHIRPP uses a computerized information system to organize and analyze any information collected from injuries or poisonings to patients seen at specific emergency departments across the country.
- CHIRPP is an emergency based injury surveillance program. There are fourteen participating hospitals throughout Canada.
- As the Children's hospital is the only participating hospital in British Columbia, any injuries suffered by people living in rural areas, native people and older teenagers seen at other hospitals or doctors office are under-represented in the CHIRPP database.