

Emergency Department Utilization

**by Enrollees in Oregon Health Plan Managed
Care Plans, 2002–2003**

EQRO Task 1 Rapid
Cycle Improvement

OMPPO

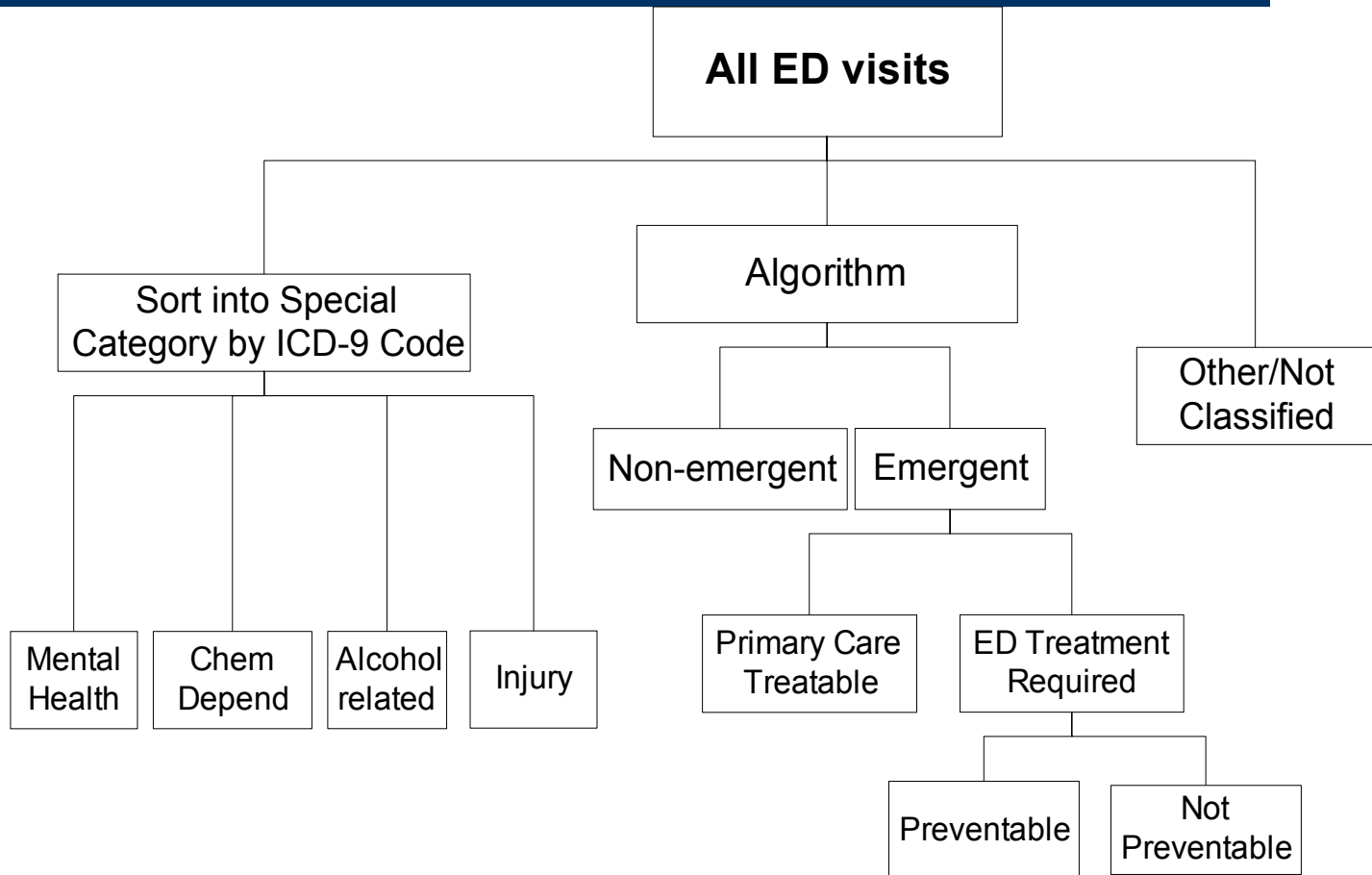
OMAP Data Used for Analysis

- Data were extracted from the OMAP claims and encounter database February 2004
- Inclusion criteria
 - ED visits identified by HEDIS criteria (Revenue Code and CPT)
 - ED visits from 2002 and 2003
 - Managed care and fee-for-service
 - Age 0 - 64 years old
 - Any length of enrollment
- Unique ED visit defined by a unique combination of:
 - Patient ID, claim number, date of visit, primary diagnosis

Algorithm to Categorize ED Visits

- Retrospective analysis of ICD-9 codes
- ED use could be an indicator of access to care
 - Are patients being seen in the ED for conditions that could be treated in the physician's office?
 - Are patients waiting too long to be seen and needing ED treatment for preventable conditions?

Algorithm to Categorize ED Visits



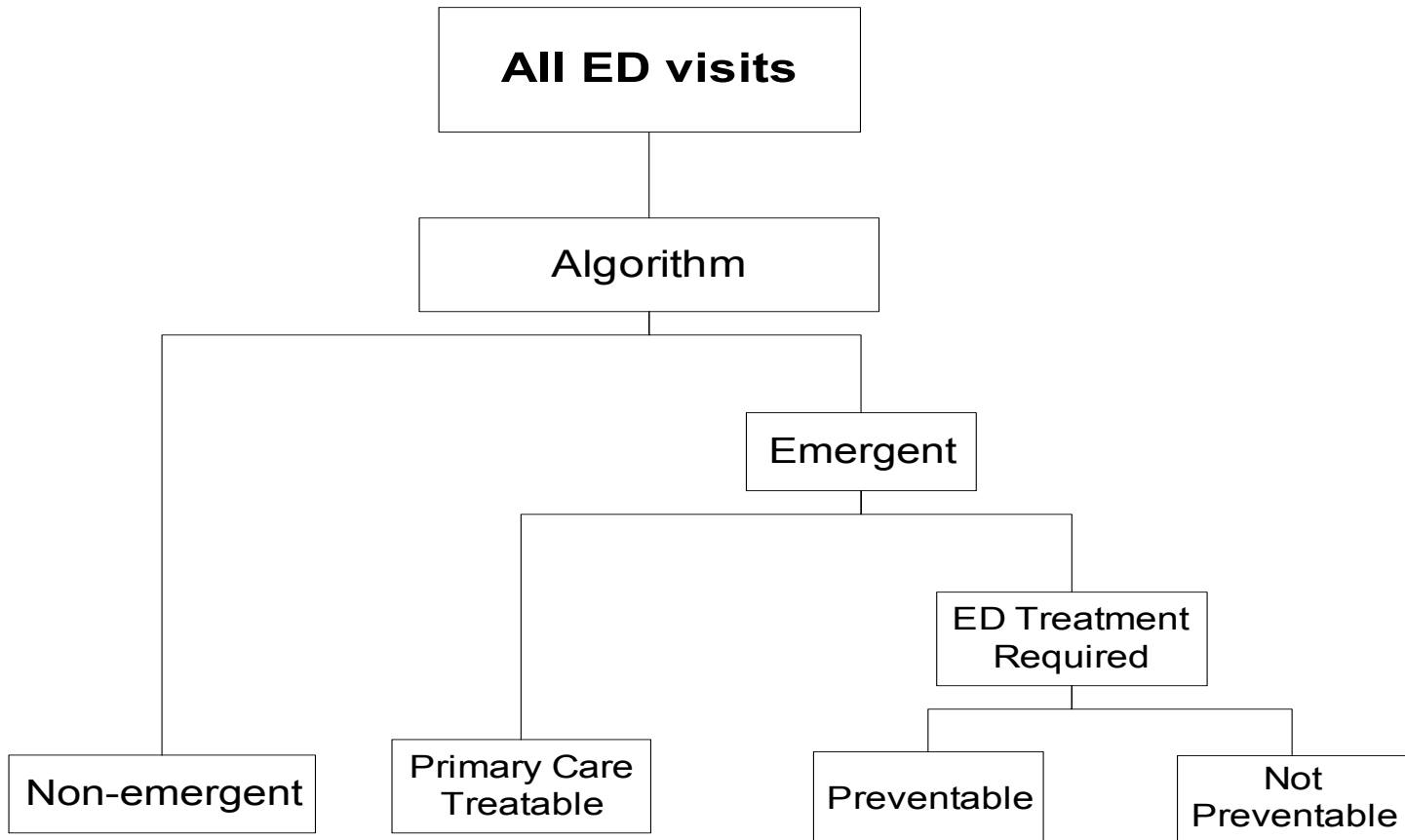
Four ED Visit Categories

- Nonemergent
- Emergent, Primary Care Treatable
- Emergent, ED Care Needed, Preventable
- Emergent, ED Care Needed, Not Preventable

Algorithm

- Algorithm developed by a panel of ED physicians
 - Reviewed ~ 5,000 ED records
 - Assessed initial complaints, vital signs, age, medical history, procedures and resources used in the ED
- Probability that the ICD-9 code falls into one or another category
 - Acute Pyelonephritis 590.10
 - 100% in Emergent, ED Care Needed, but Preventable
 - Pyelonephritis not specified as acute or chronic 590.80
 - 33% in Nonemergent
 - 67% in Emergent, ED Care Needed, but Preventable

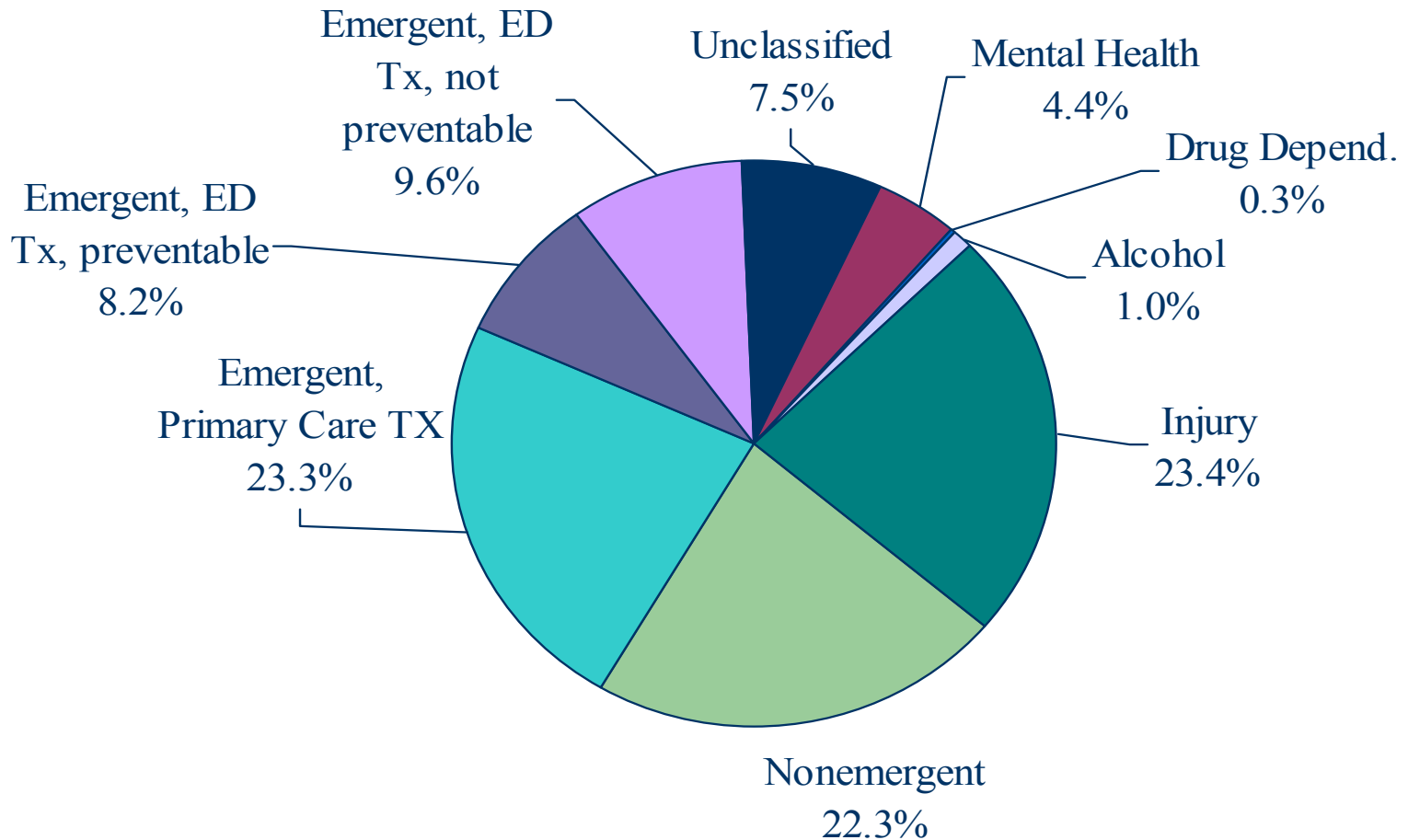
Algorithm to Categorize ED Visits



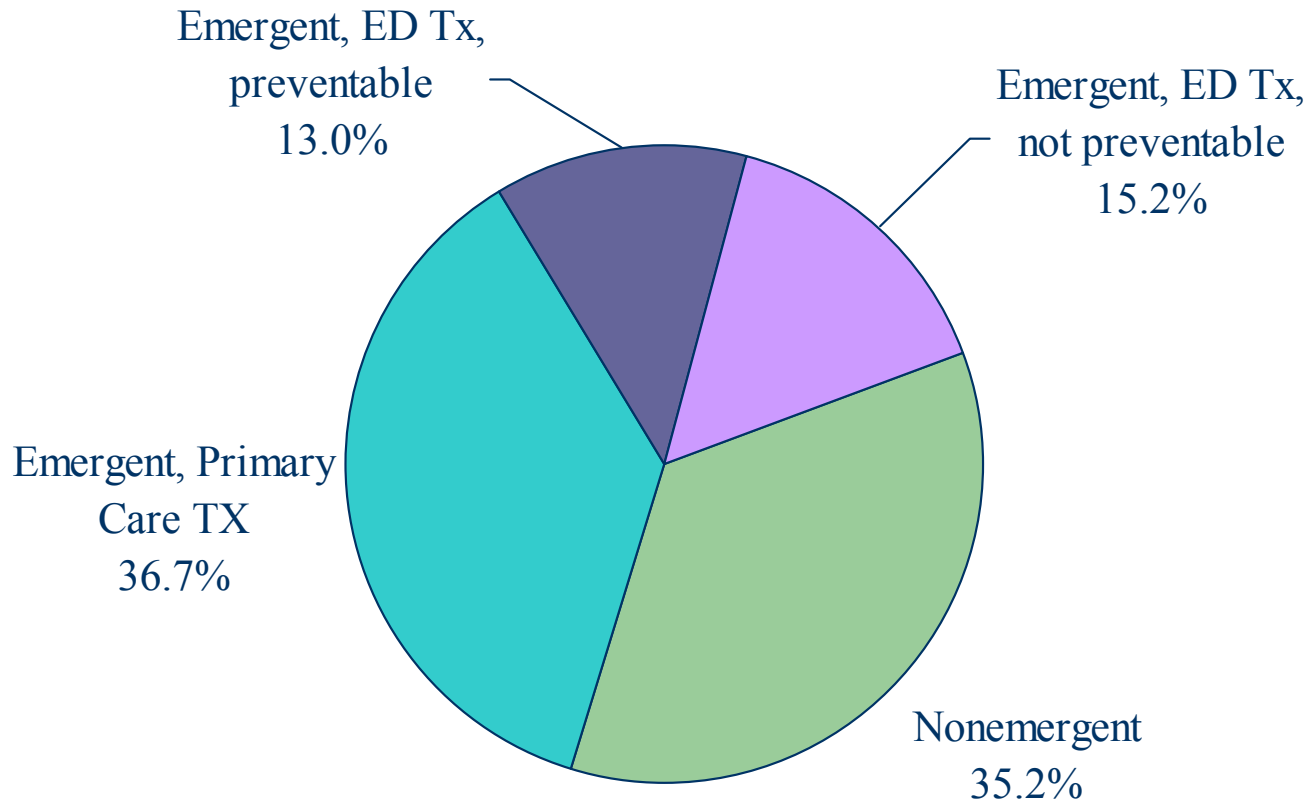
Data Analysis Findings

- Higher proportion of mental health, alcohol, drug dependency for ≥ 18 compared to < 18
- Higher proportion of injuries for < 18 compared to ≥ 18
- Higher proportion of injuries for male versus female
- Higher proportion of nonemergent visits for female versus male

OMAP Managed Care 2002-2003



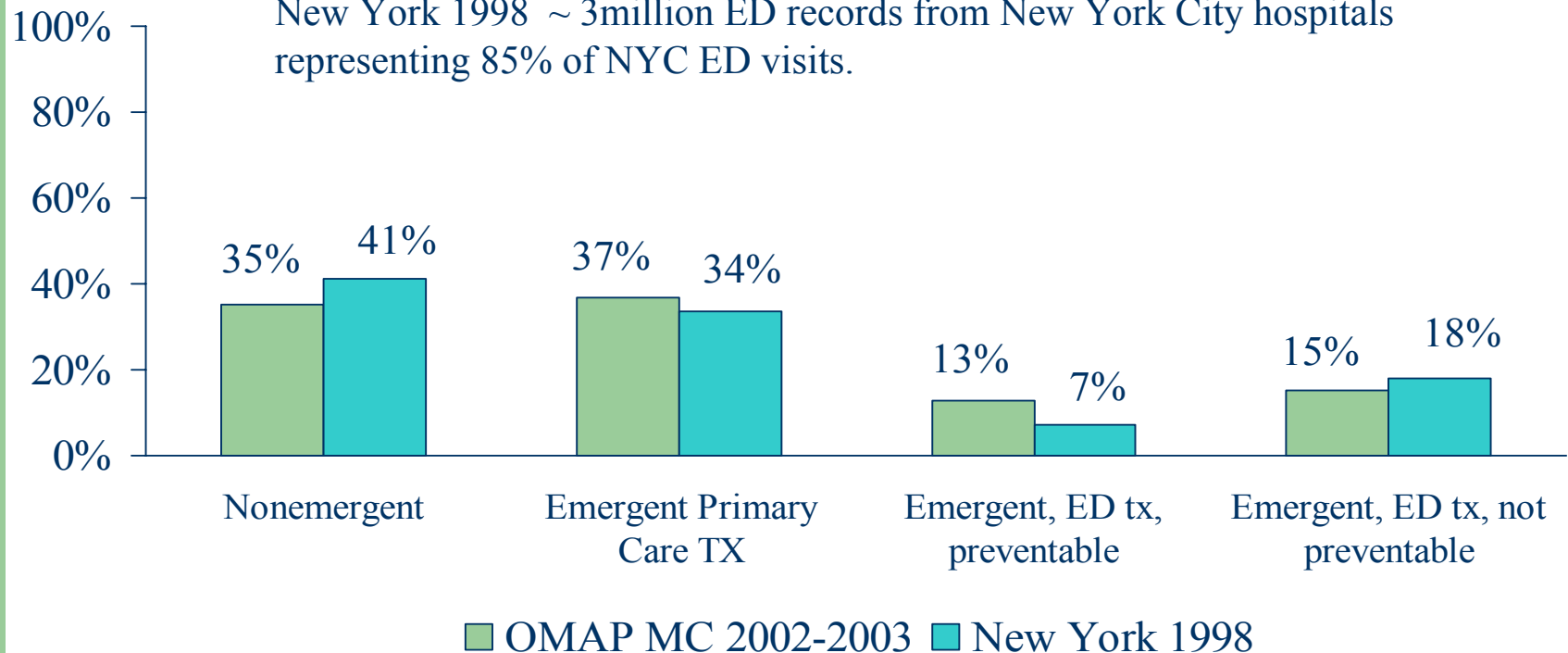
OMAP MC 2002-2003 Algorithm



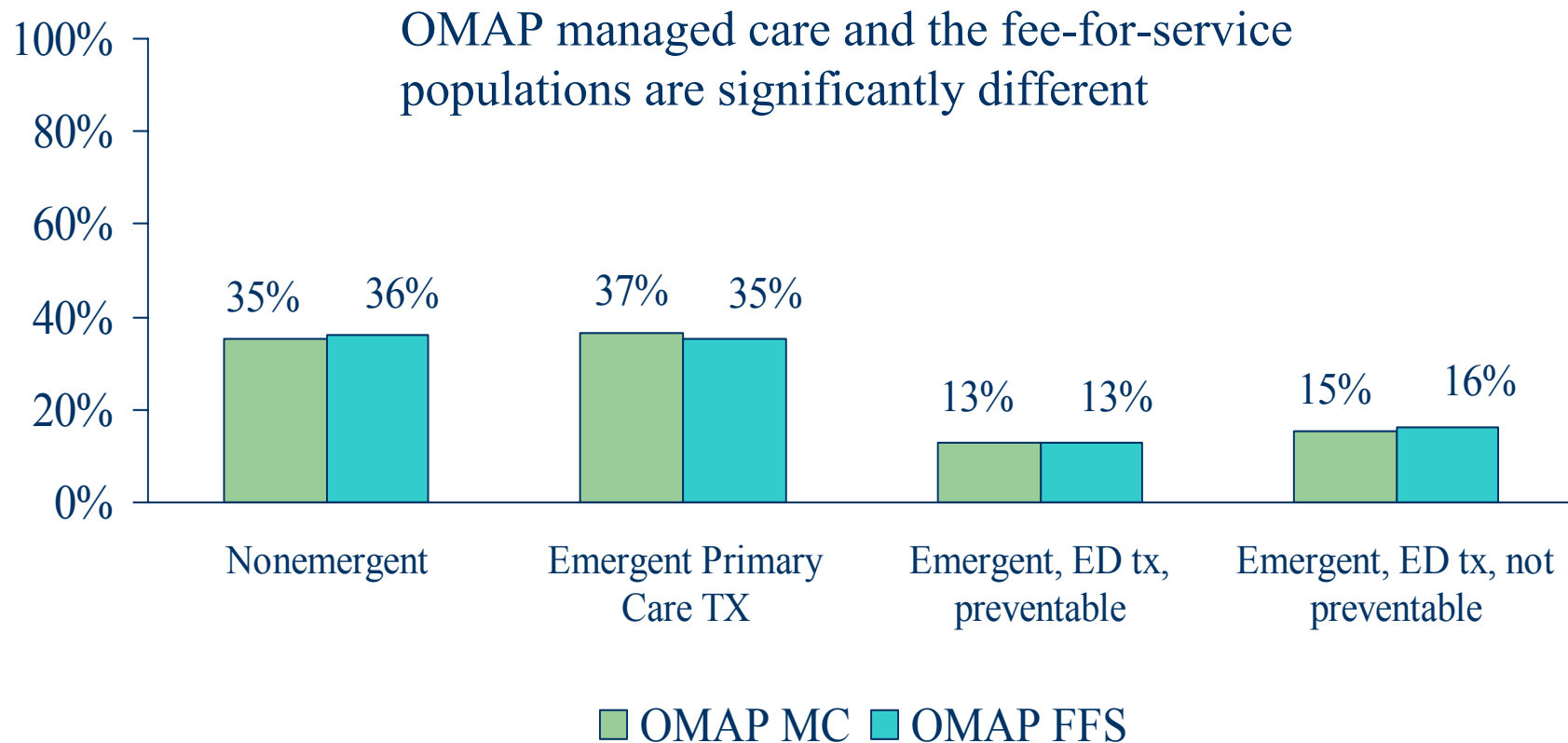
OMAP MC and New York

OMAP Managed Care 2002-2003 All ED Visits

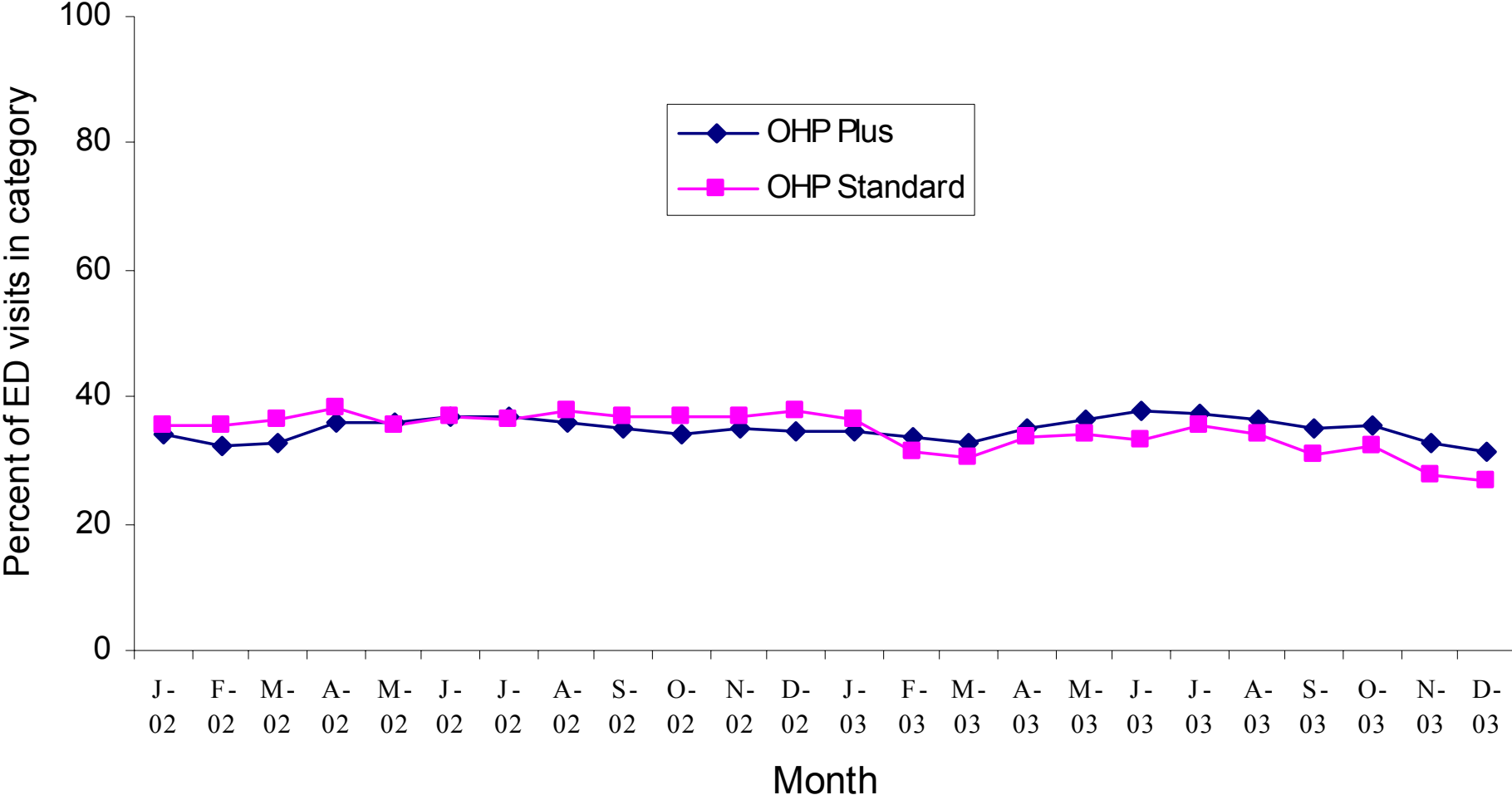
New York 1998 ~ 3million ED records from New York City hospitals representing 85% of NYC ED visits.



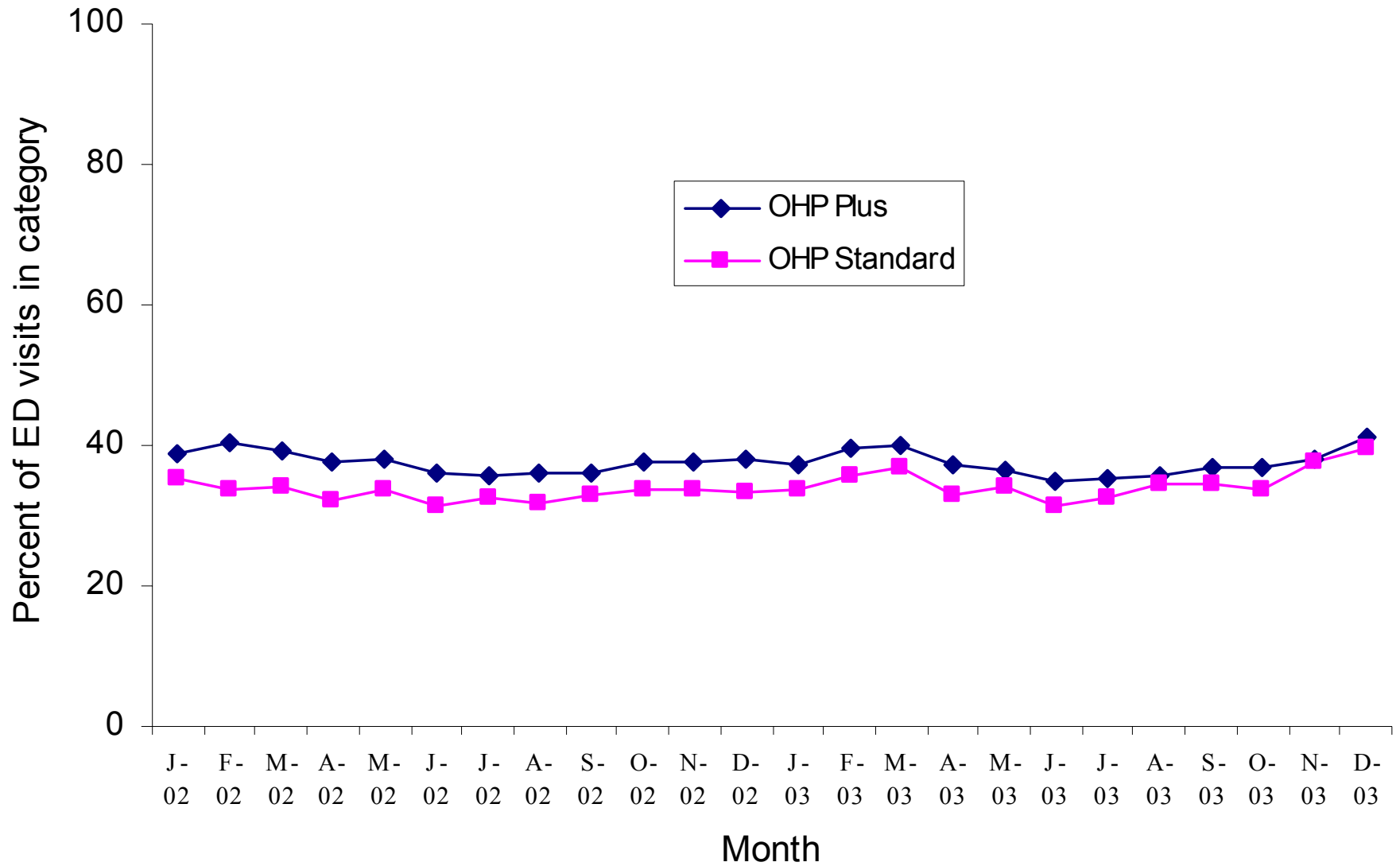
OMAP MC and OMAP FFS 2002 - 2003



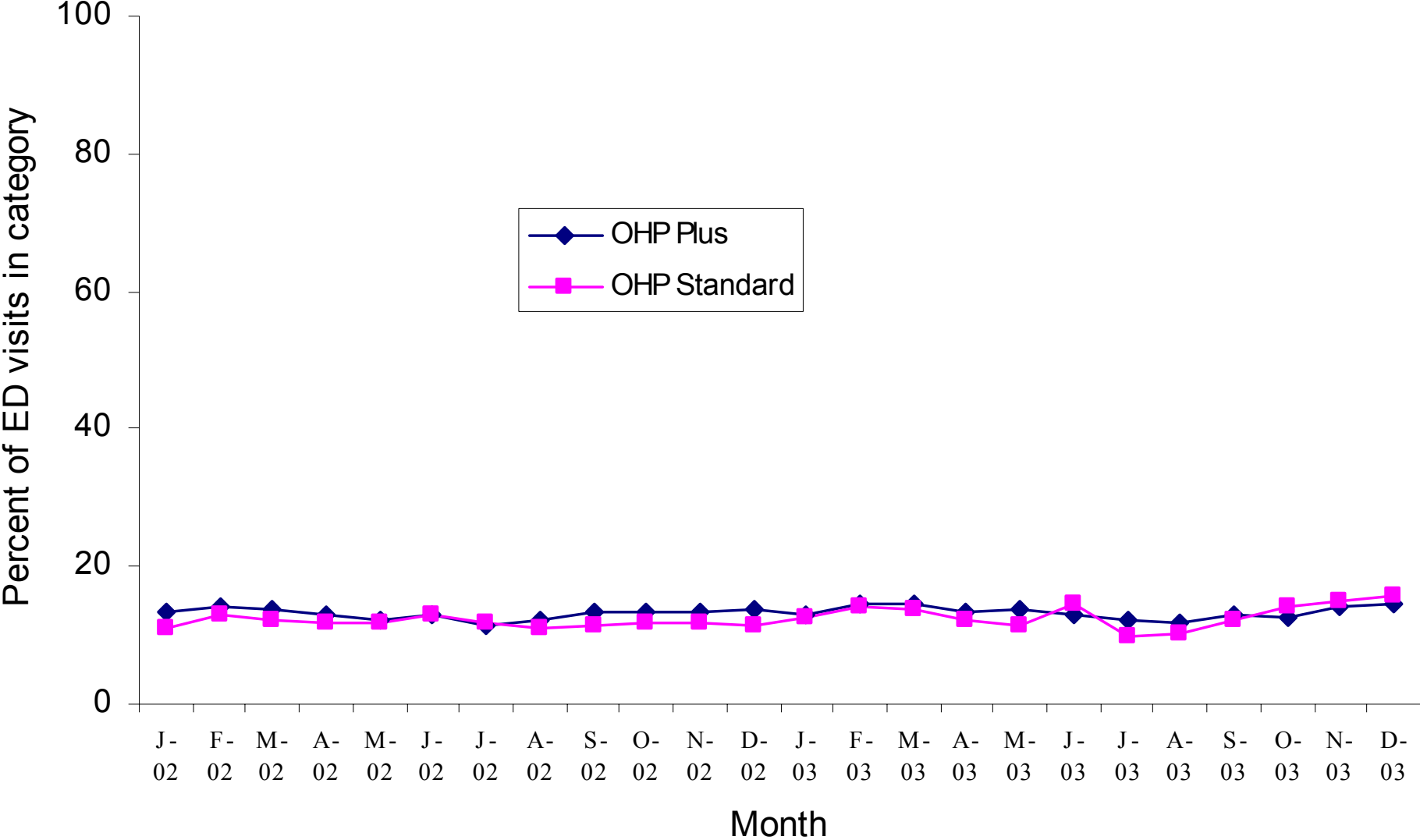
Nonemergent visits



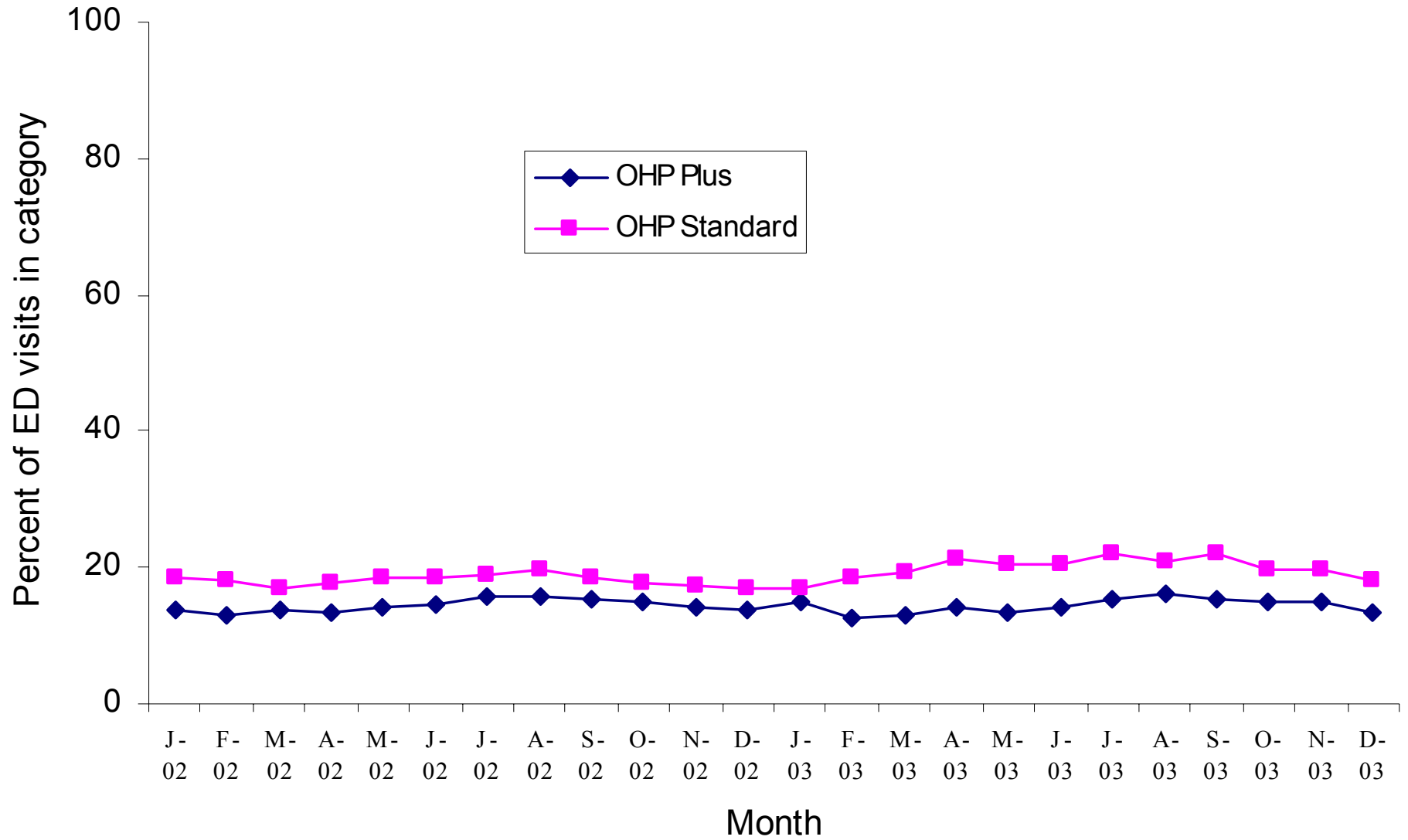
Emergent, primary care treatable visits



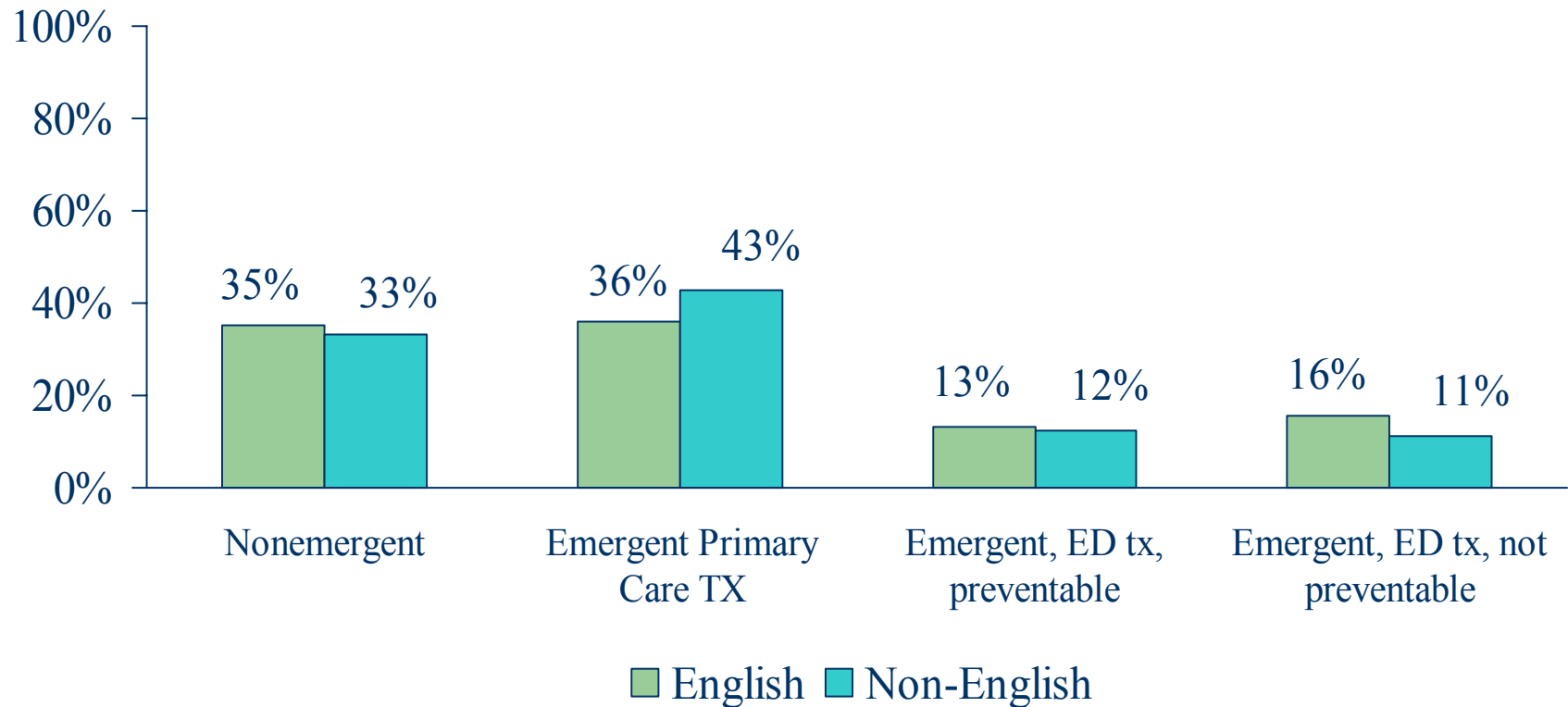
ED visit needed, preventable visits



ED visit needed, not preventable visits



Non-English Speaking Population OMAP Managed Care 2002-2003



Data Limitations

- This analysis intends to identify the nature of ED visits, not the extent to which the ED is utilized.
- The data are proportions of visits not counts or rates.

Some Caveats

- Visits are sorted by diagnosis which is assigned after evaluation
- Patients don't usually present with ICD-9 codes
- Most diagnoses spread across categories
- Prudent Layperson Rule

Prudent Layperson Standard

Emergency Medical Services are warranted when acute symptoms of sufficient severity are such that a prudent layperson, who possesses an average knowledge of health and medicine, would think that not seeking immediate medical attention would result in placing his/her health in serious jeopardy, or suffer serious impairment to bodily functions, or serious dysfunction of any bodily organ or part.

Relationship Between Access and ED Visits

- Access to care in physician offices probably affects patterns of ED visits
- Many other variables also affect patterns of ED visits