

THE CENTRAL FINDING

Adjusted mortality improved by ~24% — yet 1-year survival was essentially unchanged.

36.1% → 36.2%

1-year overall survival

INTRODUCTION

AML treatment has evolved substantially with advances in transplantation, supportive care, targeted therapy, and post-remission strategies.

KNOWLEDGE GAP
When during the disease course population-level survival gains occur remains incompletely characterized.

STUDY QUESTION

Have modern AML advances improved early survival, later survival, or both?

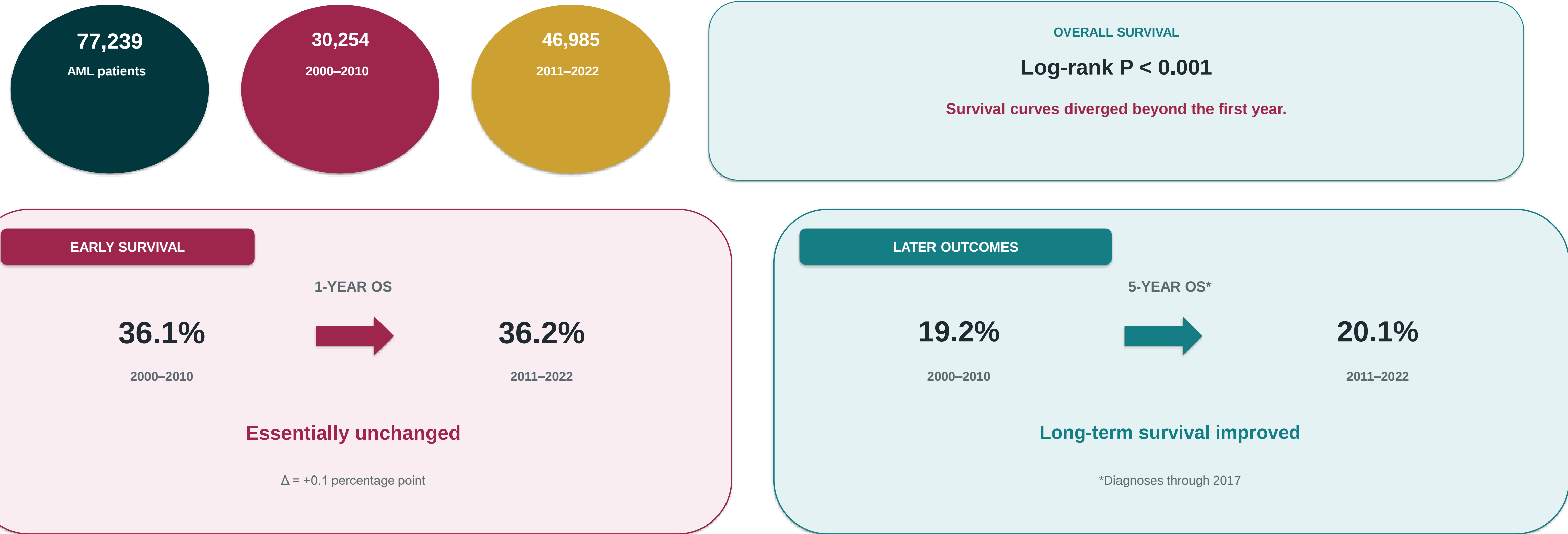
METHODS — VISUAL WORKFLOW



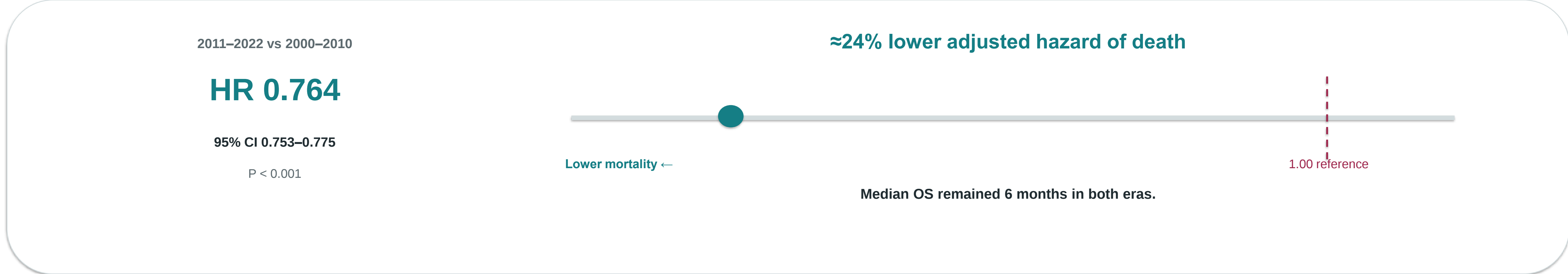
FOLLOW-UP SAFEGUARD

5-year OS restricted to diagnoses through 2017 to minimize follow-up truncation bias.

RESULTS — THE STORY CHANGES AFTER YEAR 1



ADJUSTED MORTALITY — MODERN ERA



THE PATTERN

Population-level gains appear concentrated later in follow-up, while early mortality remains a major unmet need.

WHY THIS MATTERS

A DECEPTIVE SUMMARY:

“AML survival improved.”

THE MORE USEFUL QUESTION:

Where in the disease course did progress actually occur?

THREE TAKEAWAYS

1 EARLY SURVIVAL STALLED

1-year OS: 36.1% → 36.2%

2 LATER SURVIVAL IMPROVED

5-year OS: 19.2% → 20.1%

3 ADJUSTED RISK FELL

HR 0.764 in the modern era

INTERPRETATION

The temporal pattern is consistent with greater progress among patients surviving the early disease period. SEER cannot determine whether this reflects transplantation, post-remission therapy, salvage treatment, supportive care, patient selection, or other factors.

NEXT STEP

Target the first year: identify modifiable drivers of persistent early AML mortality.

LIMITATIONS

- Retrospective registry analysis
- Treatment-level data unavailable
- Cannot identify the mechanism of survival gains
- Era comparisons may reflect changes beyond therapy alone

RESEARCH IMPLICATION

Future studies should focus on drivers of first-year mortality and identify which modern interventions account for improved later outcomes.

Progress is real — but the first year remains the gap.

STUDY STRENGTHS

- 77,239
patients

Large population-based AML cohort
- 23
years

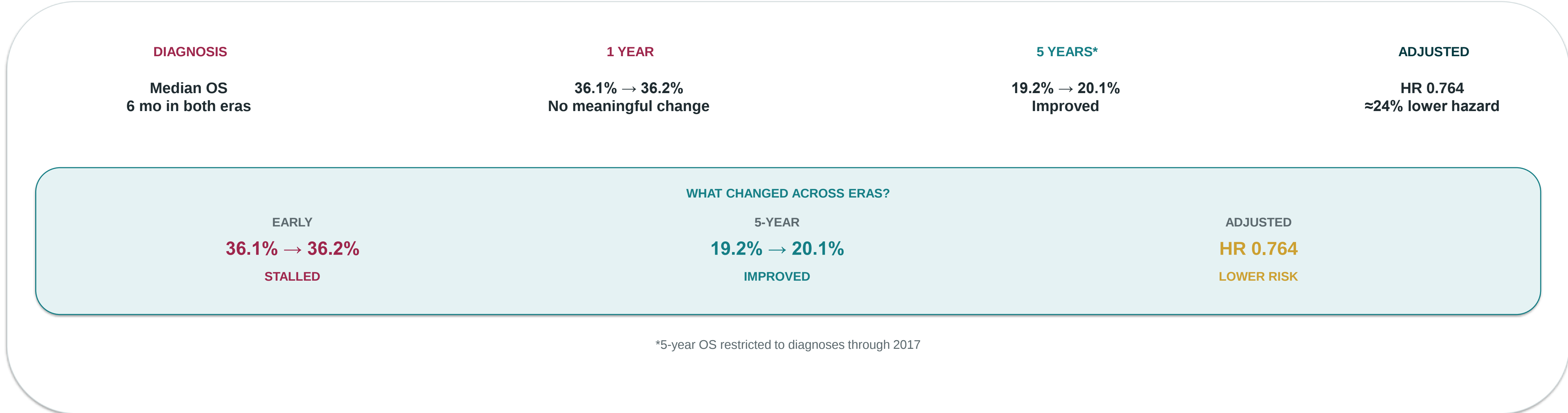
Captures two decades of therapeutic evolution
- 2
eras

Direct temporal comparison
- 2017
cutoff

5-year analysis limits follow-up truncation bias

POPULATION-LEVEL SIGNAL ≠ TREATMENT-LEVEL CAUSATION

SURVIVAL LANDMARKS — ONE GLANCE



EARLY

36.1% → 36.2%
STALLED

WHAT CHANGED ACROSS ERAS?

5-YEAR

19.2% → 20.1%
IMPROVED

ADJUSTED

HR 0.764
LOWER RISK

*5-year OS restricted to diagnoses through 2017

TAKE-HOME MESSAGE • Two decades of AML progress have not translated into better 1-year survival. The modern era carries a substantially lower adjusted mortality hazard, suggesting that the next major opportunity is improving early outcomes.