

Background

- Lupus nephritis (LN) is a serious complication of systemic lupus erythematosus (SLE) associated with considerable morbidity, including an increased risk of end-stage kidney disease (ESKD) that may impose a substantial economic burden on the healthcare system.
- For patients with refractory LN, disease outcomes may be worse compared to those without refractory disease,^{1,2} further impacting costs and resource use.
- Recently, a systematic literature review showed increased costs and healthcare resource utilization (HCU) associated with LN globally but there is a need to better understand the economic impact of the disease in the United States (US).
- This literature review aimed to qualitatively summarize the evidence on costs and HCU related to the management of LN in adult patients in the US.

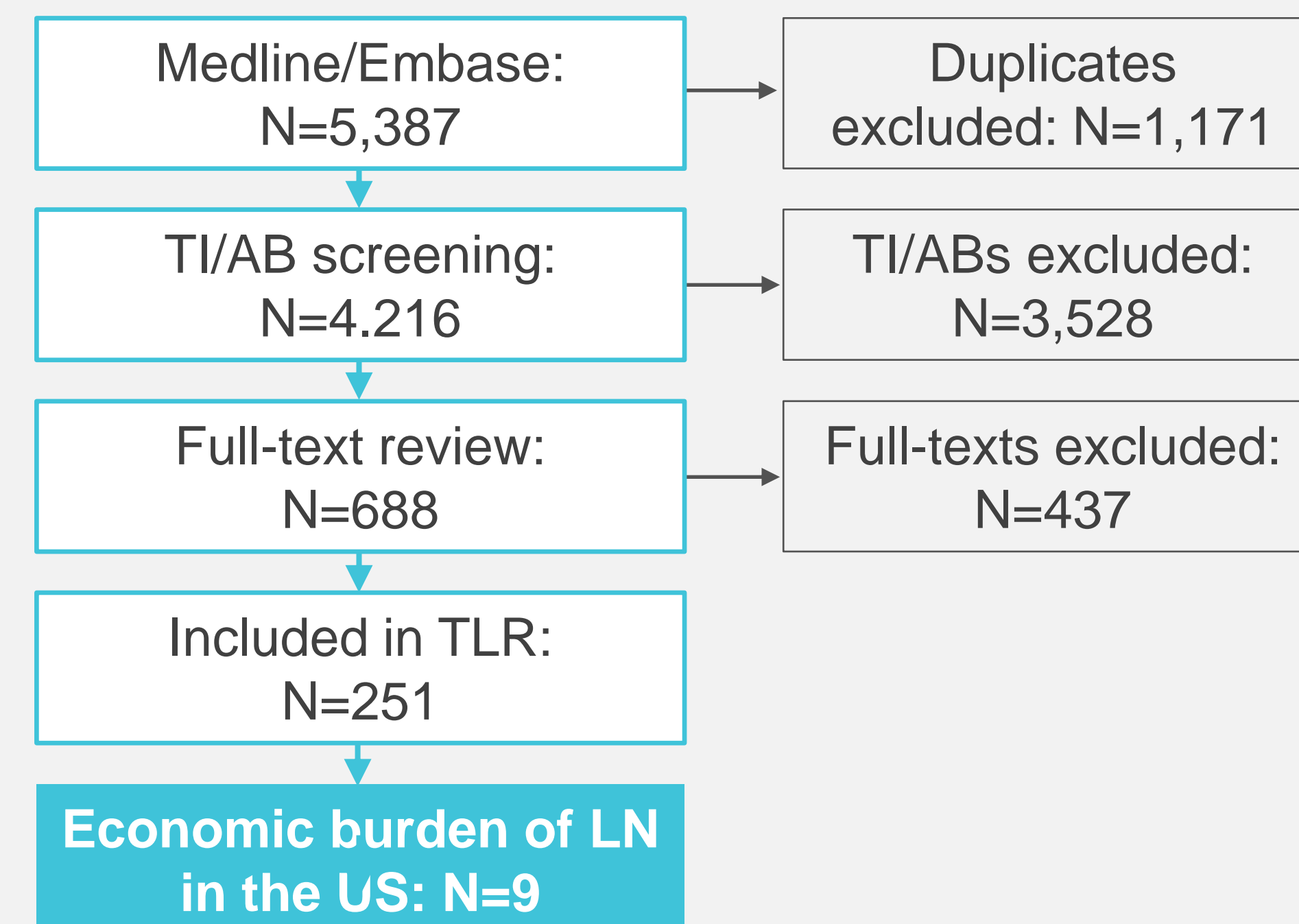
Methods

- A comprehensive targeted literature review (TLR) was conducted in MEDLINE and Embase to identify studies in patients with adult and juvenile onset of LN, published in English between March 2012 and 2022. The search included conference abstracts indexed in Embase since 2019.
- The current poster summarizes data on costs and HCU associated with management of adults with LN in the US.

Results

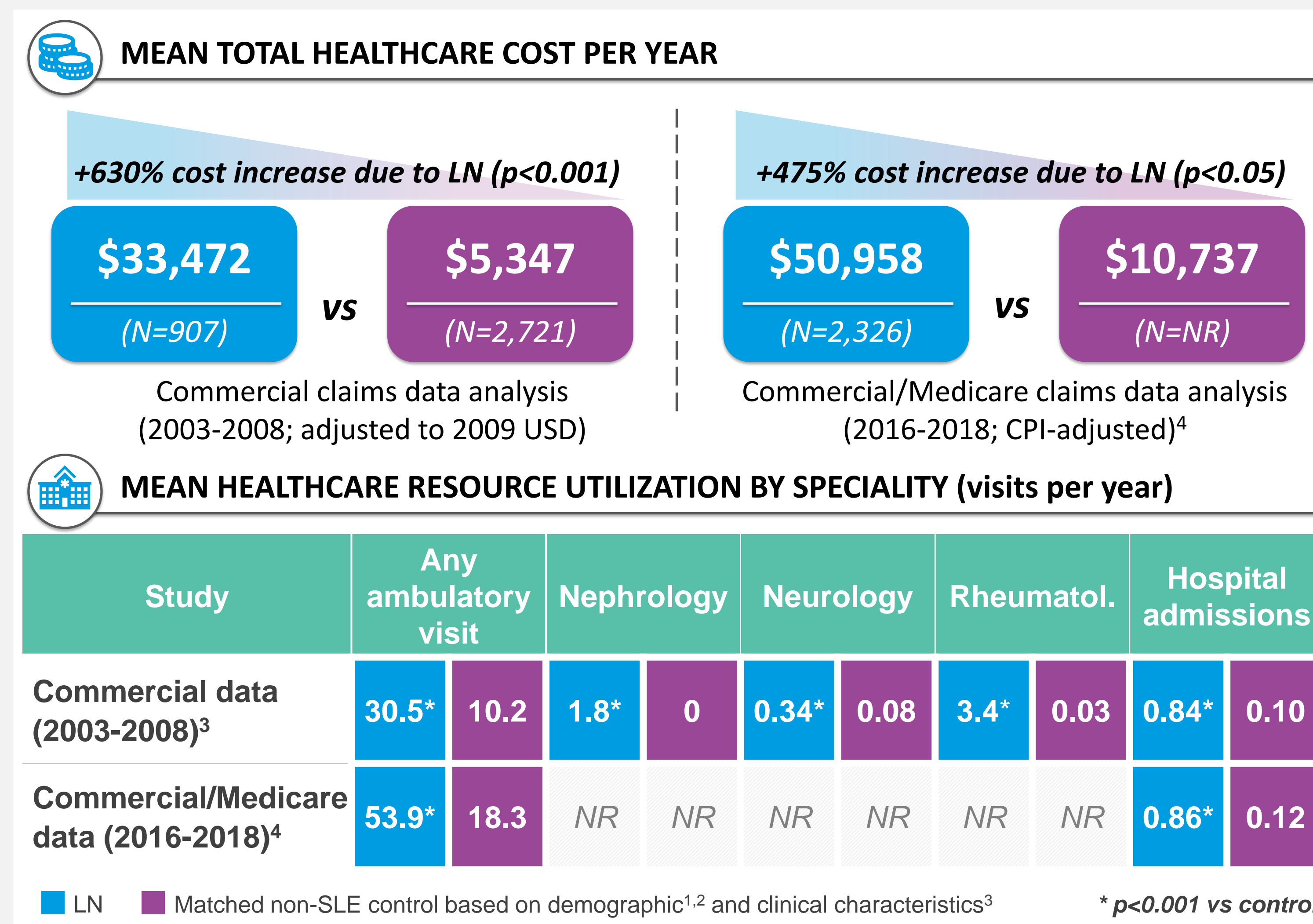
- Of 4,216 records identified in the medical databases, 9 studies³⁻¹¹ reported on the costs and HCU associated with management of LN in real-world practice in the US (Figure 1).
- The majority of studies were retrospective analyses of large nationwide claims and inpatient databases.
- Patients with LN had significantly higher utilization of outpatient visits related to spectrum of care and hospitalizations per year^{3,4} with roughly 6-day longer lengths of stay (LOS), compared to subjects without SLE³ (Figure 2).
- The mean annual healthcare cost ranged from approximately \$33,500 to \$51,000^{3,4}, approximately 5-6-times higher than in matched non-SLE controls (Figure 2).

Figure 1. PRISMA diagram



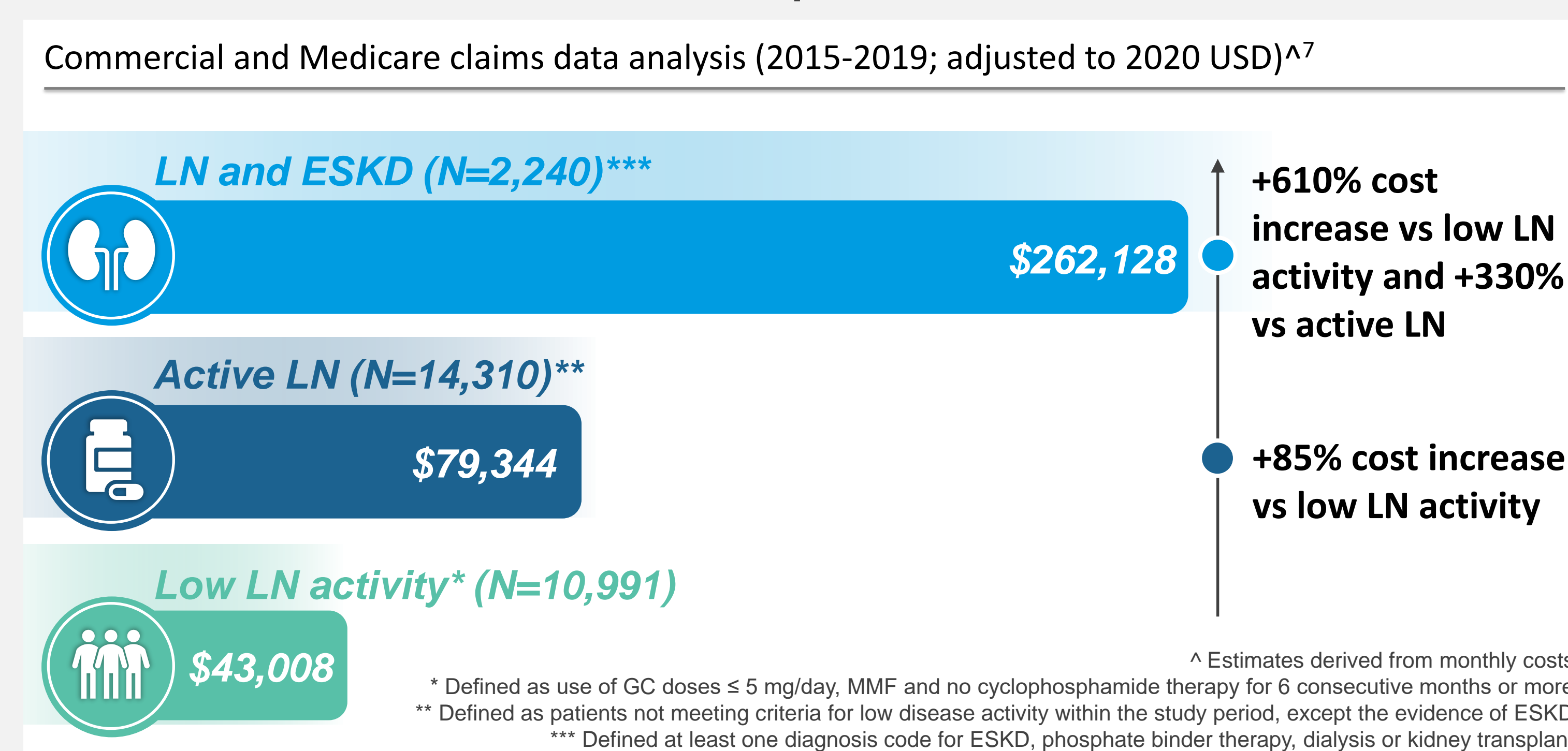
Results (cont'd)

Figure 2. LN led to significant excess healthcare cost and resource utilization compared to matched non-SLE controls



- The significant healthcare costs for management of LN was primary driven by inpatient cost³⁻⁵. The mean cost of hospitalization in patients with LN was \$11,200 vs \$9,109 in patients with SLE only.⁶
- LN-related ESKD and active LN led to excess costs compared to periods of low disease activity, with mean annual healthcare cost of roughly \$262,000 and \$79,000 vs \$43,000, respectively⁷ (Figure 3).

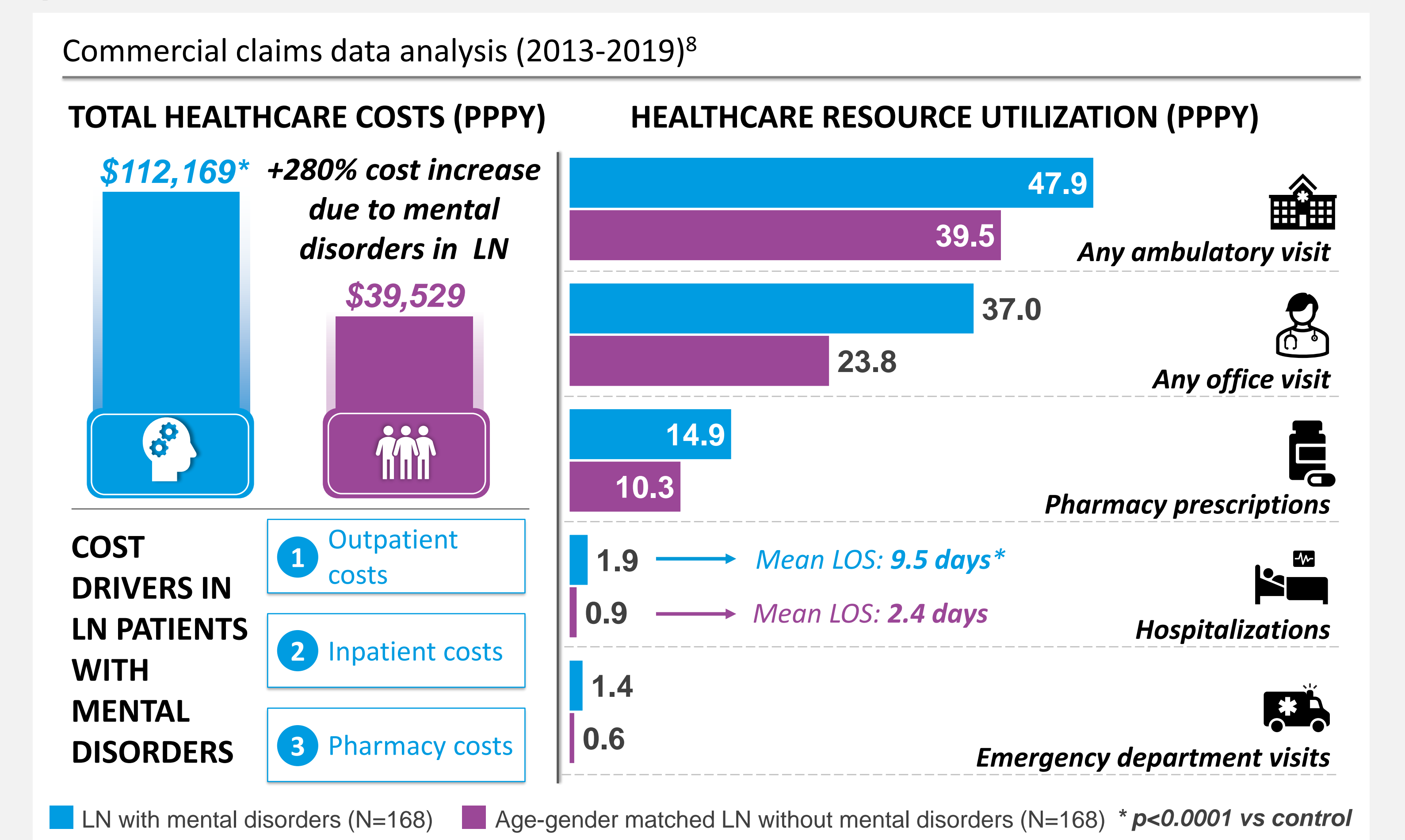
Figure 3. Active LN and development of ESKD led to significant mean annual all-cause healthcare cost increase for patients with LN



Results (cont'd)

- Patients with LN suffering from mental health comorbidities such as depression, anxiety, bipolar disorder and psychosis had significantly higher healthcare costs and resource utilization compared to LN patients without mental health comorbidities.⁸ (Figure 4).

Figure 4. Higher healthcare costs and resource utilization was observed in patients with LN and mental health comorbidities



Conclusions

- LN is associated with significant economic burden on the US healthcare system.
- The total cost of care is notably high in patients with active LN and those with ESKD, which confirms the urgency of need for effective therapies to treat LN and prevent its complications.

References

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