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Systematic review

Role of Urgent Care Centers in Reducing Non-Emergent Emergency Department Visits and Healthcare Costs

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Abstract

Background and objective: Urgent care centers provide unscheduled treatment for acute conditions outside hospital emergency departments. Their contribution to reducing emergency attendance and healthcare expenditure remains disputed. Lower consultation prices do not necessarily translate into lower population spending. This review examines studies on urgent care centers, non-emergent emergency department utilization, and healthcare costs. **Methods:** PubMed, Scopus, and Web of Science were searched from inception through May 2026 for original comparative studies evaluating urgent care centers and their effects on emergency department utilization and healthcare costs. Two authors independently screened records, assessed full-text eligibility, extracted data, and evaluated methodological limitations, resolving disagreements through consensus. Reporting followed PRISMA guidelines. Findings were synthesized narratively because study designs, service models, populations, and outcome measures differed across studies.

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Results: Studies reported heterogeneous associations in healthcare systems. An analysis from six United States associated operating urgent care centers with 17.2% fewer emergency visits among local residents during opening hours. A Chilean natural experiment reported a 2.69% reduction in emergency visits alongside reduced same-day primary care attendance. English studies reported reduced minor attendance and unchanged utilization. Commercial insurance data demonstrated lower urgent care prices than emergency department prices. Another analysis associated 37 additional urgent care visits with one fewer low-acuity emergency visit, producing increased combined spending. **Conclusions:** Urgent care centers offer less expensive encounters and reduce selected emergency visits. Evaluation requires attention to substitution, additional demand, downstream hospital use, and equitable access.

Keywords: Urgent care centers; emergency departments; non-emergent visits; healthcare costs; healthcare utilization.

Introduction

Urgent care centers occupy an intermediate position between scheduled primary care and hospital emergency departments (EDs), providing walk-in treatment, extended opening hours, and selected diagnostic and procedural services. A national United States survey documented substantial participation by family physicians and services extending beyond those offered in many conventional primary care offices. These organizational features establish urgent care as a distinct option for episodic illness and minor injury, with accessibility forming a central component of its service model (1).

Nonurgent ED attendance reflects interactions between perceived illness severity, service availability, convenience, and previous experiences of outpatient care. A systematic literature review identified substantial variation in definitions of nonurgent attendance and emphasized limitations in the evidence concerning patients' decisions to seek emergency treatment. This variation complicates comparisons between studies and separates the administrative classification of an encounter from the circumstances surrounding the

original decision to attend (2,3). Raven and colleagues demonstrated substantial overlap between presenting complaints associated with primary-care-treatable discharge diagnoses and complaints associated with more serious emergency presentations (3). Patients triaged as nonurgent still received investigations, procedures, and hospital admission, demonstrating that low initial urgency does not establish the absence of a legitimate need for assessment (4).

The economic rationale for urgent care initially emphasized transferring suitable encounters from expensive emergency settings to less resource-intensive services. Weinick and colleagues estimated that 13.7%–27.1% of ED visits were potentially suitable for urgent care centers or retail clinics, with projected annual savings of approximately US\$4.4 billion. These figures represented modeled opportunities under specified assumptions, rather than observed savings following nationwide urgent care expansion (5).

Subsequent claims research documented declining low-acuity ED use alongside substantial growth in alternative acute care settings and increased

aggregate utilization (6). Retail clinics also serve a narrower clinical spectrum than emergency departments, making distinctions between retail services and broader urgent care provision essential when comparing studies (7). These findings motivate an evaluation that distinguishes changes in emergency attendance from differences in encounter prices and total healthcare expenditure. The present review examines comparative evidence concerning urgent care availability, nonemergent ED visits, and economic outcomes, with attention to the definitions and service characteristics underlying apparently conflicting findings. This distinction prevents treating lower consultation prices as direct evidence of reduced expenditure across the healthcare system.

Methods

Study design and search strategy

This systematic review examined the role of urgent care centers in reducing nonemergent emergency department visits and healthcare costs. Reporting followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses framework. Two authors independently searched PubMed, Scopus, and Web of Science from database inception through May 2026.

The search combined terms describing urgent care services with terms describing emergency department utilization and economic outcomes. Relevant terms included “urgent care,” “walk-in clinic,” “minor injury unit,” “emergency department,” “nonurgent,” “nonemergent,” “utilization,” “cost,” and “expenditure.” Boolean operators and database-specific indexing terms were used to structure the searches. Reference lists

of eligible articles and relevant reviews were examined for additional studies.

Eligibility criteria

Eligible studies were original comparative investigations evaluating urgent care availability, introduction, proximity, or use. Relevant comparators included areas without urgent care services, periods before service introduction, and alternative treatment settings. Outcomes included emergency department attendance, nonemergent visits, encounter costs, and total healthcare expenditure.

Randomized trials, quasi-experimental studies, cohort studies, and comparative cross-sectional analyses were eligible. Community walk-in services were included when their clinical scope was relevant to urgent care. Reviews, editorials, protocols, conference abstracts without sufficient results, and studies without relevant comparative outcomes were excluded. Retail-only clinics and primary care services located within emergency departments were excluded from the primary synthesis.

Study selection and data extraction

Following deduplication, two authors independently screened titles and abstracts against the eligibility criteria. Eligible reports underwent independent full-text assessment, with disagreements resolved through discussion and consensus. Reasons for exclusion were recorded during full-text assessment. Authors independently extracted study characteristics and findings using a standardized extraction form. Extracted information included publication year, country,

design, population, sample size, urgent care model, comparator, follow-up, outcome definitions, and effect estimates. Adjusted estimates, confidence intervals, expenditure perspectives, and currency years were recorded when available.

Critical appraisal and evidence synthesis

Two authors independently assessed methodological limitations relevant to each study design. Assessment addressed participant selection, confounding, exposure classification, outcome measurement, missing data, and selective

reporting. Differences in judgments were resolved through consensus. Findings were synthesized narratively because service models, populations, comparators, and outcome definitions differed substantially. Studies were grouped by emergency department utilization, encounter-level costs, and overall healthcare expenditure. Observed changes were distinguished from modeled savings, and associations were interpreted according to study design. Economic findings were presented in their reported currencies and price years, without assuming equivalent expenditure measures across studies.

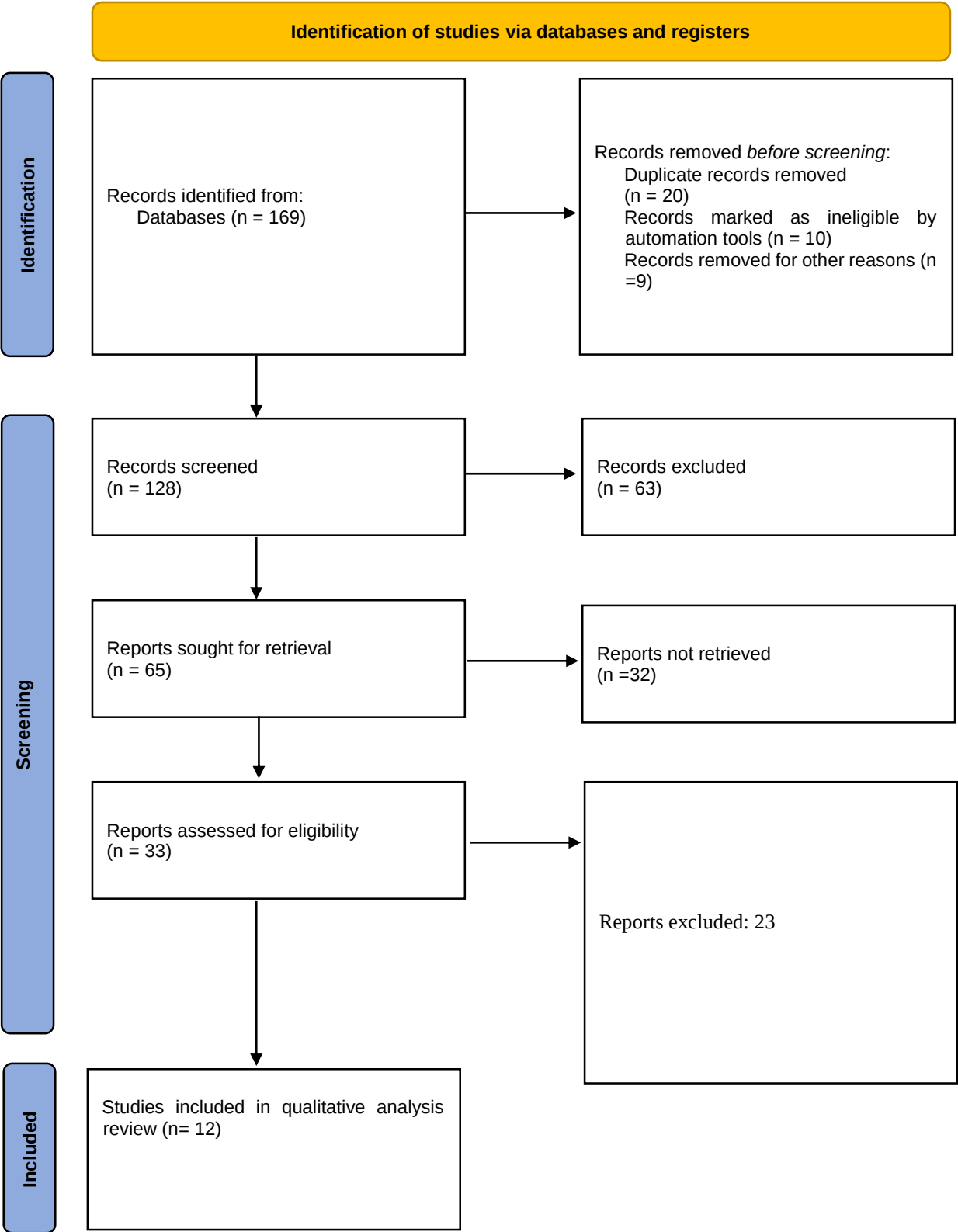


Figure 1: PRISMA flow chart

Results

Allen and colleagues examined urgent care operating hours using ED data from six United States states and a difference-in-differences design. An open center in the residential ZIP code was associated with 17.2% fewer ED visits, with reductions concentrated in less emergent presentations and hospitals with longer waits. In Chile, Pacheco and colleagues analyzed a public network containing ten family health centers, nine urgent care centers, and three EDs (9). Urgent care implementation was associated with 2.69% fewer ED visits and 5.70% fewer same-day primary care visits, demonstrating substitution across both sectors (9) (Table 1).

Arain and colleagues observed an 8% reduction in daytime adult ED attendances classified as minor, with a 95% confidence interval of 1%–16% (10). Their routinely collected data indicated a smaller effect than patients' stated alternative service choices suggested (10). Salisbury and colleagues found no clear overall improvement in attendance or per-patient costs after introducing walk-in centers alongside EDs, illustrating the importance of local implementation and comparison groups (11).

Llovera and colleagues examined 677,995 ED encounters during expansion of nearby urgent care services and reported reduced proportions of pharyngitis and bronchitis presentations (12). Total ED attendance nevertheless increased during the observation period, separating condition-specific changes from overall emergency workload (12). Carlson and colleagues found lower odds of low-acuity ED attendance among residents near affiliated urgent care at one of two academic

medical centers, with an adjusted odds ratio of 0.87 and a 95% confidence interval of 0.78–0.98 (13).

Corwin and colleagues analyzed 27,971,740 fee-for-service Medicare beneficiaries and documented marked geographic variation in the treatment of selected nonurgent conditions (14). Physician offices accounted for 83% of such visits, urgent care centers for 14%, and EDs for 3%; greater urgent care use coincided geographically with lower ED use (14). Ho and colleagues compared commercial insurance claims across sixteen Texas metropolitan areas and found 2015 average visit prices of US\$168 at urgent care centers, US\$2,199 at freestanding EDs, and US\$2,259 at hospital EDs (15).

Wang and colleagues associated 37 additional urgent care visits with one fewer low-acuity ED visit; US\$1,646 in avoided ED spending was offset by US\$6,327 in urgent care spending (16). Currie and colleagues associated urgent care entry with US\$268 higher annual Medicare expenditure per beneficiary by the sixth year, while mortality remained unchanged. Increased hospital spending accounted for approximately half of that increase (17) (Table 2).

Across these ten studies, selective substitution and lower encounter prices coexisted with inconsistent or increased total expenditure, while observational designs limited causal certainty (8–17). Exposures included operating-hour availability, proximity to new centers, regional service intensity, and actual treatment location (8,13–15). The estimates describe related mechanisms rather than interchangeable measures of one intervention, and differences in populations, comparators, outcome definitions, and economic perspectives preclude interpreting their numerical results as a single

common effect (8–17). Dollar estimates retain their original study context and are not inflation-

harmonized; they represent different populations, denominators, and expenditure measures (15–17).

Table 1. Characteristics of the ten original studies summarized

Study	Country	Design and population	Exposure or comparison
Allen et al., 2021 (8)	United States	Difference-in-differences; ED records from six states	Urgent care open versus closed; areas without centers as controls
Pacheco et al., 2019 (9)	Chile	Natural experiment; public healthcare network, 2008–2014	New urgent care implementation versus earlier implementation
Arain et al., 2015 (10)	England	Before-and-after evaluation using routine attendance data and surveys	Introduction of a GP-led walk-in center
Salisbury et al., 2007 (11)	England	Controlled evaluation of hospital sites	EDs with co-located walk-in centers versus comparison sites
Llovera et al., 2019 (12)	United States	Retrospective analysis; 677,995 ED encounters, 2009–2016	Expansion of nearby urgent care availability
Carlson et al., 2020 (13)	United States	Retrospective geospatial analysis at two academic centers	Residential proximity to affiliated urgent care openings
Corwin et al., 2016 (14)	United States	Cross-sectional analysis; 27,971,740 Medicare beneficiaries	Geographic variation in treatment setting
Ho et al., 2017 (15)	United States	Commercial claims analysis; sixteen Texas metropolitan areas	Urgent care, hospital EDs, and freestanding EDs
Wang et al., 2021 (16)	United States	Longitudinal commercial insurance analysis	Urgent care growth and associated emergency utilization
Currie et al., 2023 (17)	United States	Longitudinal Medicare analysis of market entry	Newly served versus comparison ZIP codes

Table 2. Utilization and economic findings

Study	Main finding	Economic finding or interpretive boundary
Allen et al. (8)	17.2% fewer local ED visits during urgent care operating hours	Utilization effect; not a measured net saving
Pacheco et al. (9)	ED visits decreased 2.69%; same-day primary care visits decreased 5.70%	Demonstrates substitution across two existing services
Arain et al. (10)	Minor adult ED attendance decreased 8%	Reported intention overstated observed diversion
Salisbury et al. (11)	No clear overall attendance benefit	No clear per-patient cost improvement
Llovera et al. (12)	Pharyngitis and bronchitis proportions decreased; total attendance increased	Diagnosis-specific change did not establish overall diversion
Carlson et al. (13)	Adjusted odds ratio 0.87 at one academic center	Association differed between the two centers

Study	Main finding	Economic finding or interpretive boundary
Corwin et al. (14)	Higher regional urgent care use accompanied lower ED use	Cross-sectional association; no causal saving established
Ho et al. (15)	Compared treatment settings and diagnostic overlap	Average 2015 prices: urgent care US\$168; hospital ED US\$2,259
Wang et al. (16)	Approximately 37 additional urgent care visits per avoided low-acuity ED visit	Added urgent care spending exceeded avoided ED spending
Currie et al. (17)	Increased hospital use; unchanged mortality	Annual Medicare spending increased US\$268 per beneficiary by year six

Discussion

The principal finding is that reducing selected ED visits and reducing total healthcare expenditure are distinct policy outcomes, even when urgent care consultations carry substantially lower prices (8,15–17). Economic benefit depends on the balance between displaced emergency encounters, additional consultations, and subsequent hospital treatment, rather than the price difference alone (16,17). Adjacent evidence from retail clinics supports this interpretation: Ashwood and colleagues attributed 58% of low-acuity retail visits to additional utilization, accompanied by increased spending (18). That finding explains a plausible demand mechanism without treating retail clinics as equivalent to broader urgent care centers (1,7,18).

Access also determines which populations experience meaningful alternatives to emergency treatment (8,12). Le and Hsia found that urgent care centers were concentrated in urban communities with higher levels of private insurance coverage, raising concerns about the distribution of service availability (19). Llovera's findings concerning centers that did not accept Medicaid demonstrate why geographic proximity does not establish practical access for every patient (12). Our

interpretation is that commissioning decisions require simultaneous consideration of opening hours, payer acceptance, and local unmet need, with evaluation stratified by the populations actually served (8,12,19).

Palms and colleagues found antibiotic prescribing for antibiotic-inappropriate respiratory diagnoses in 45.7% of urgent care visits, compared with 24.6% of ED visits (20). These findings support incorporating prescribing quality into urgent care evaluation rather than measuring success exclusively through patient volume and consultation expenditure (20). Clinical quality therefore remains relevant to economic interpretation because lower encounter prices do not establish appropriate treatment (15,20). Diagnostic labels also require caution because similar presenting complaints encompass both minor conditions and serious illness, limiting retrospective assessments of avoidability (3,4).

Patient experience represents an additional dimension of service value that utilization measures alone fail to capture (21). In two English walk-in centers, Arain and colleagues reported satisfaction levels of 93% and 86%, with appointment-free access frequently identified as a reason for attendance (21). More than half of follow-up

respondents also consulted another NHS service for the same problem, illustrating the need to examine complete episodes of care (21). Such reconsultation does not itself establish unnecessary duplication, although it prevents equating an initial convenient encounter with definitive resolution across every patient pathway (21).

Evidence from a related Cochrane review further emphasizes the limits of transferring conclusions between organizational models (22). Its four studies evaluated primary care professionals working within hospital EDs, rather than community urgent care expansion, and provided very-low-certainty evidence regarding resource use and costs (22). That review informs interpretation of co-located models without supplying direct proof of community-level savings or equivalent safety (22).

Conclusion

Urgent care centers provide accessible treatment for selected acute conditions and offer substantially lower encounter prices than emergency departments. Their availability is associated with reductions in some nonemergent emergency visits, with effects varying across populations and service configurations. Lower visit prices do not establish overall healthcare savings: additional consultations and downstream hospital use offset substitution benefits in several studies. The strongest practical implication is to evaluate urgent care through total expenditure, appropriate treatment, equitable access, and complete patient pathways. Expansion decisions require locally demonstrated benefits and reliable comparisons, with patient safety and continuity assessed alongside changes in emergency department demand.

Abbreviations

CENTRAL: Cochrane Central Register of Controlled Trials.

ED: Emergency department.

GP: General practitioner.

NHS: National Health Service.

PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

US\$: United States dollars.

ZIP: Zone Improvement Plan.

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