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Why do people choose Emergency and Urgent care services?

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Why do people choose Emergency and Urgent care services?

Abstract (394 words)

Objectives: Rising demand for emergency and urgent care services are well documented, as are the consequences, for example, ED crowding, increased costs, pressure on services and waiting times. Multiple factors have been suggested to explain why demand is increasing, including an aging population, rising number of people with multiple chronic conditions and behavioural changes relating to how people choose to access health services. The aim of this systematic mapping review is to bring together published research from urgent and emergency care settings to identify drivers that underpin patient decisions to access urgent and emergency care.

Methods: Systematic searches were conducted across MEDLINE (via Ovid SP), EMBASE (via Ovid), The Cochrane Library (via Wiley Online Library), Web of Science (via the Web of Knowledge) and the Cumulative Index to Nursing and Allied Health Literature (CINAHL; via EBSCOhost. Peer reviewed studies written in English that reported reasons for accessing or choosing emergency or urgent care services, and were published between 1995 and 2016 were included. Data were extracted and reasons for choosing emergency and urgent care were identified and mapped. Thematic analysis was used to identify themes and findings were reported qualitatively using framework based narrative synthesis.

Results: Thirty-eight studies were identified that met the inclusion criteria. Most studies were set in the UK (39.4%) or the USA (34.2%) and reported results relating to ED (68.4%). Thirty-nine percent of studies utilised qualitative or mixed research designs. Our thematic analysis identified 6 broad themes which summarised reasons why patients chose to access ED or urgent care. These were access to and confidence in primary care; perceived urgency, anxiety and the value of reassurance from emergency based services; views of family, friends or healthcare professionals; convenience (location, not having to make appointment and

Why do people choose Emergency and Urgent care services?

opening hours); individual patient factors (e.g. cost); perceived need for EMS or hospital care, treatment or investigations.

Conclusions: We identified 6 distinct reasons explaining why patients choose to access emergency and urgent care services: Limited access to or confidence in primary care, patient perceived urgency, convenience, views of family, friends or other health professionals and a belief that their condition required the resources and facilities offered by a particular healthcare provider. There is a need to examine demand from a whole system perspective to gain better understanding of demand for different parts of the emergency and urgent care system and the characteristics of patients within each sector.

Introduction

- The trend of increasing annual demand for emergency and urgent care is consistent across both developed countries and different providers of emergency and urgent care (EUC). Studies from the USA, Canada, UK and Australia report that demand for Emergency Department (ED) care is increasing by as much as 3% 6% each year ^{1;2; 3;4; 5}. In the USA, ED attendance increased from 34.1% to 40.5% per 100 persons between 1996 and 2006 ⁶ and in England demand has doubled from an estimated 6.8 million ED attenders in 1966/7 to 13.6 million in 2006/7, with a further increase to 14.3 million in 2012/13. ⁷ Demand for urgent care center services in the UK has also grown, with attendances increasing by 46% between 2006 and 2013. ⁷ In addition, demand for prehospital emergency services has risen dramatically over the last 20 years, rising in England by 125%, from around 4 million calls in 1994/5 to 9 million ambulance calls in 2014/15 ⁸ and in the US EMS transports have risen from 16,000,000 in 2006 to 28,004,624 in 2009. ^{9;10}
- The impact of increased demand for emergency and urgent care is well known and includes
- 66 issues such as ED crowding, increased costs, longer waiting times and over stretched services.
- 67 ED crowding has been a recognized problem in the US since the mid-1980s ^{3; 11}, occurs in most
- developed countries ^{12; 13; 14; 15} and is described as a 'worldwide public health problem'. ¹⁶

Why	do	people	choose	Emergency	y and U	rgent	care se	ervices?

- 69 Increased demand for services also results in increased service provision costs. For example, in
- 70 the UK demand for ambulance services rises annually by 6.5% and increases costs annually by
- 71 60 million pounds (85 million dollars). 17
- Published literature suggests that some of the increase in demand is attributable to people with
- primary care problems who use emergency and urgent care services to access care ¹⁸, and some
- studies suggest that large proportions of patients, (10 60%), can be managed using lower acuity
- 75 care services. 19 However, this is not the only reason and factors contributing to increased demand
- for emergency and urgent care are often complex and multifactorial. Several studies report that
- 77 increased demand for emergency and urgent care services is due to a proportionate rise of older
- people in the population who may have different and more complex care needs. 20; 21 Other
- studies have reported that patients bypass their Primary Care Physician (PCP) (also known as a
- 80 General Practitioner (GP)) and instead go directly to urgent or emergency care, ²² particularly for
- 81 out of hours care and in urban centers.²³ Factors such as perceived superior treatment at
- hospitals, ¹⁸ lack of access to other care ²⁴ a belief that the problem was serious enough to
- warrant emergency treatment ²⁴ and lack of awareness of other services ¹⁹ have all been reported
- as potential reasons why people choose emergency and urgent care and thus may all impact on
- why demand for these services is continually increasing.
- 86 The aim of this study is to systematically review the related literature and, using narrative
- 87 synthesis, to identify the factors behind patient decisions to access urgent and emergency care,
- 88 including why patients access emergency and urgent care and how and why they choose which
- 89 service to access.

91 Methods

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92 Study design

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Why do people choose Emergency and Urgent care services?

This review was one of five linked reviews undertaken by our Evidence Synthesis Center to look at the effectiveness of different models of delivering urgent care. ²⁵ The Evidence Synthesis Center provides rapid evidence synthesis about relevant health issues and evidence gaps to the UK National Institute for Health Research (NIHR). This information is used to inform calls for new research. A timeline of 6 months was given by NIHR for the Evidence Synthesis Center to complete 5 separate but interlinked reviews around emergency and urgent care, and this paper presents one of the reviews. The review reported here explores patient's reasons for choosing emergency and urgent care. We were required to provide answers to the research commissioner (NIHR) within a timescale that was prohibitive to a full systematic review. The short time-frame and vast scope of the review subject area lends itself to rapid review methods, in order to efficiently identify and synthesise the most relevant evidence within the study timeframe. A rapid review is defined as "a type of knowledge synthesis in which components of the systematic review process are simplified or omitted to produce information in a short period of time" ²⁶ for example, by limiting inclusion by date or language and reporting results narratively. ²⁷ Rapid reviews have been described as a 'streamlined alternative to standard systematic reviews' and a key use of this type of review is to provide summary evidence in an environment where health service delivery decisions need to be made quickly and not within the timeframes of traditional reviews. They also provide a format that makes evidence accessible for decision makers and are a valuable way of supporting evidenced based decision making.²⁸ The type of review undertaken here can also be described as a mapping review. Mapping reviews are typically used to map, summarise and categorise broad research bases, particularly with the intention of identifying evidence gaps and are defined as "a systematic search of a broad field to identify gaps in knowledge and/or future research needs". ²⁹-Mapping reviews are frequently used within policy development and health services research. ³⁰The review reported here used a systematic search strategy. However, other stages of the review are typologically different from

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Why do people choose Emergency and Urgent care services? 119 a traditional systematic review method. For example, we did not attempt to intensively identify 120 all applicable evidence, but instead utilized structured searches to identify key evidence. Findings were reported qualitatively using a framework based narrative synthesis.³¹ 121 122 **Literature Search and Selection** 123 **Database searches** 124 Search terms were developed based on discussions with the research team, which included an 125 information specialist (AC). Where possible, we identified similar reviews and expanded pre-126 existing search strategies to meet the broad remit of this search. We combined relevant terms 127 relating to the following: population; users of the range of services within the emergency and 128 urgent care system (ambulance services, ED, other urgent care facilities, telephone access 129 services, primary care-based urgent care services); outcomes; service effects – ED attendances, 130 emergency admissions, ambulance calls, dispatches or transports, demand, appropriateness of 131 level of care, cost consequences; patient outcomes – patient experience and satisfaction, 132 decision-making, adverse events and cost impact. 133 134 An information specialist (AC) conducted targeted database searches using the following 135

databases: MEDLINE (via Ovid SP), EMBASE (via Ovid), The Cochrane Library (via Wiley Online Library), Web of Science (via the Web of Knowledge) and the Cumulative Index to Nursing and Allied Health Literature (CINAHL; via EBSCOhost). Searches were initially limited to 1 January 1995 to December 2014, and were updated to April 2016 to ensure current findings are included in the analysis and that results are relevant to current services. We used a combination of free text and medical subject headings (MeSH) search terms, as well as appropriate subheadings. Keywords related to emergency and urgent care services, health service demand and related issues, factors, for example crowding or aging, rising demand and were combined using BOOLEAN logic. Search results were limited to English language papers

Why do people choose Emergency and Urgent care services? 144 published from 1995. A detailed description of the search strategy is provided in supplemental 145 file1. Search results were downloaded into EndNote version X7.2.1 (Thomson Reuters, CA, 146 USA). 147 Other key evidence was identified through the following supplementary searching methods: 148 examining reference lists of relevant systematic reviews; using our own extensive archives of 149 previous related research, including a number of related evidence reviews; an evidence review produced by NHS England as part of its review of urgent and emergency care, 32 consultation 150 with internally-based topic experts and some external topic experts.³³ 151 152 **Inclusion criteria** 153 154 In order to manage the review process, we used the following broad inclusion criteria: 155 Empirical data; quantitative, qualitative and mixed method studies; emergency or urgent care 156 service users; written in English; report relevant outcomes (patient experiences and 157 perspectives); peer-review publications; published between 1995 and 2016 158 We did not include studies that presented evidence relating to clinical interventions for specific 159 conditions or specific condition related studies, as these did not fit with the whole service, whole 160 population perspective of this review. However, where evidence was presented for broad 161 population groups, for example children or the elderly, these were included. 162 Study selection 163 References were managed using Endnote version. After removal of duplicates, 1724 remaining 164 references were screened for relevance, using the title and abstract; 1647 irrelevant papers were 165 excluded at this stage and the most common reason for exclusion was lack of empirical evidence

Why do people choose Emergency and Urgent care services?

or publication type (editorial, letter, conference abstract etc). Where it was unclear if studies were relevant, the full text paper was obtained.

Seventy-seven full-text papers were reviewed for inclusion by 1 researcher (JT) and the results were discussed and confirmed with two other researchers (JC, DB); 38 papers were excluded at this stage. The most frequent reason for exclusion was not an empirical study (n=14). Where additional input was required specific papers were discussed with the wider review team as part of regular project meetings.

Data Extraction

Results from 38 included studies were extracted directly into summary tables study by one reviewer (DB) and verified by a second reviewer (JC). Regular project meetings were held during this review stage and any differences in extracted data were reviewed and discussed to ensure consensus on extracted data items. Data was extracted using standardized predefined headings and included: main purpose and objectives; key findings and conclusions.

Data analysis

A thematic mapping analysis was undertaken for all included papers, including those reporting survey and quantitative data. The thematic approach used in rapid reviews attempts to characterize the body of literature qualitatively rather than to quantify numbers of studies. This reduces the need to identify a comprehensive sample (as in a systematic review) as opposed to a representative sample which indicates the major trends without having to find all instances. Patient-derived reasons for choosing emergency or urgent care service were identified and extracted from each included research paper and mapped against emerging themes by two reviewers (JT and JC). A qualitative based thematic analysis process was used to identify and code emerging themes, using similar methods to those used in qualitative Framework analysis. As a survey of the paper and survey and the paper and paper and paper and paper and paper analysis process was used to identify and code emerging themes, using similar methods to those used in qualitative Framework analysis.

Why do people choose Emergency and Urgent care services?

Themes were reviewed and discussed with the study team and further refined and developed, until a final agreed coding framework was applied to the review findings, resulting in the identification of 6 themes which encompassed reported reasons for choosing emergency or urgent care services. We have narratively synthesized and reported data by theme. The narrative synthesis summarizes the findings from multiple studies using mainly words or text information.

Quality assessment

Rapid reviews tend to be descriptive rather than analytical. For example, they prioritise the research questions that have been addressed rather than the results. This is one reason why approaches to quality assessment are less thorough. For example, study types are described rather than appraised. However, in order to ensure the conclusions of this research are based on robust evidence, we assessed the quality of studies using commonly used quality assessment tools. Fifteen qualitative interview or focus group studies were assessed using the Critical Appraisal Skills Programme Qualitative Checklist. ³⁵ This tool was chosen as it incorporates both broad and study specific quality issues and is a widely recognised quality assessment tool. Twenty-three cross-sectional studies were assessed using the National Institute Health (NIH) Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies. ³⁶We defined cross-sectional studies as structured interviews, structured telephone interviews or surveys, postal surveys which used statistical analysis methods. As no cohort studies were included in this review, we adapted the NIH tool to remove questions that primarily referred to quality issues in cohort studies.

213 Results

214 Search results

Why do people choose Emergency and Urgent care services?

We identified 38 individual studies relevant to this review. Search results are reported using
Preferred Reporting Items for Systematic reviews and Meta-analysis (PRISMA) ³⁷ in Figure 1.
The main study characteristics are reported in Table 1. Complete summary tables of all included papers are available as supplemental file 2. Included studies were primarily concerned with patients presenting with urgent rather than emergency conditions.

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Study quality and relevance

All included studies were published in peer-reviewed journals. Given the main purpose of most studies was to identify patient-derived factors or reasons for emergency and urgent care service use, the use of qualitative and cross-sectional study designs was appropriate. The majority of studies were undertaken in the USA, UK, Australia and Canada (n= 32/38; 84.2%), giving the data and results greater congruency due to the similarity of health systems. Most (n=21; 52.6%) studies reported data relating to a single site or health facility. However, where data were reported within national surveys the results were consistent with those from single site studies.²⁴ Quality assessment (see supplemental file 3) identified that overall, the quality of included studies is high, but identified limitations with some study methodologies. Only thirteen of the twenty-three cross-sectional studies reported a sample size justification, power description, or provided variance and effect estimates provided. It was not possible to calculate the response rate for one study, due to insufficient detail given. 18 However, for the twenty-two studies that did provide this information, the mean response rate was 77% and the range was 45% - 99%. Only one study had a response rate lower than 50%. ³⁸ The fifteen qualitative studies had fewer quality issues and overall the quality of included studies was very high. Three studies did not provide sufficient information about ethical or research approvals and two studies lacked information about the considerations of the relationship between the research and the patient. Some studies used multiple methods incorporating a range of qualitative methods across whole populations, whilst others employed simpler designs with less comprehensive samples. For example, multi-

Why do people choose Emergency and Urgent care services?

site studies using focus groups and interviews, ³⁹ and multi-site surveys ²⁴ compared to single site 242 qualitative studies.¹⁸

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Summary of findings

246 A summary of the main characteristics of all included studies is given in Table 1.

Narrative synthesis

248 We identified frequently occurring themes regarding patients' decisions on where to access care 249 and, in particular, why patients chose to access emergency or urgent care for non-urgent health 250 problems. We identified 6 themes that accounted for the majority of the factors related to ED 251 attendance and urgent care usage. Descriptions of each theme are outlined in figure 2.

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Confidence in primary care and access to appointments

Access to and confidence in primary care was a key factor identified by 26 studies and nearly all reported access related issues. In most studies patients had access to primary health care and chose instead to seek more urgent or emergency care, often without contacting a PCP first. There were multiple reasons why people felt accessing primary health care services was difficult. Anticipated waiting times for appointments and PCPs (including General Practitioners (GPs)) being busy were key factors, 40; 41;42; with one study reporting that 44% of patients found their GP 'inaccessible to their needs'. This was also linked to patient perceptions around accessibility and availability of appointments at times of day that were convenient to patients, ⁴³ limited PCP opening hours, 44 with a small proportion of patients reporting they were unable to obtain a PCP appointment.³⁸ Lack of primary health service was available after-hours was raised by one study. 18 Another factor was lack of awareness of other services; with one study reporting that 7/30 patients who attended ED had no knowledge of alternative primary care options. 38 GP dissatisfaction influenced 10% of patients in their decision to attend an Urgent Care Center (UCC) ³⁹ and in some cases high rates of PCP dissatisfaction was reported. ⁴⁶ One study reported that patients felt out of hours care was impersonal.⁴⁷

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270	There was evidence that different population groups had different views, used services
271	differently and for different reasons. For example, older people were distrustful of telephone
272	services and preferred to see a familiar PCP than to contact an out of hours service. 48 Conversely,
273	the study by Benger et al identified younger people tended to choose emergency and urgent care
274	over general practice for non-urgent health care problems. ⁴⁹ Young females were identified in a
275	Brazilian study as being more likely to use ED inappropriately, due to lack of access to primary
276	care services. ⁵⁰ Migrant populations often had no PCP and often sought ED care for non-urgent
277	health problems due to difficulties accessing primary health care. ⁵¹
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279	Perceived urgency anxiety and the value of reassurance from emergency based services
280	Twenty four studies reported results categorized within this theme, with 14/24 studies reporting
281	data from ED based studies. A key finding here was that patient anxiety was strongly related to
282	health care seeking behaviour 52;53 and this linked closely with the reassurance that patients
283	obtain from emergency services 54 and their trust of ED services. 55 In some cases anxiety was due
284	to worries about the legitimacy of need 39, with patients not wishing to use services
285	inappropriately. There was a strong sense that patients viewed their conditions to be
286	serious. 42;40;43;56;49,57;58 This was juxtaposed with evidence that patients were not always capable
287	of assessing which health problems required emergency care and were sometimes unsure of the
288	legitimacy of their health needs. 39;59
289	Whilst self-perceived urgency is a strong theme within included studies, one study ³⁸ reported
290	that 52% of ED attending patients described their condition as non-urgent, 48% urgent, with no
291	patients describing their problem as very urgent.
292	Patients may also gain reassurance from having greater confidence in ED and hospital services,
293	with 39% of patients stating they had more confidence in their ED than in their PCP service ²²
294	and 24% believing that hospital treatment is superior. 18

Why do people choose Emergency and Urgent care services?

Perceived need for EMS or hospital care, treatment or investigations

Thirteen studies reported evidence categorized within this theme, with most reporting that patients believe emergency or urgent care was required for their health problem. This often stems from a belief that their condition needs the resources offered by a hospital, including hospital doctors (rather than PCPs or GPs) and diagnostics particularly x-rays and treatment. ^{43;38;47;60} Some patients felt they were too sick to be seen within a primary care setting, with the study by Lobachova and colleagues reporting that 80% of patient felt they were too ill to be seen and treated in primary care. ⁵⁸ Others felt their condition was too difficult or complex for PCPs to control or could only be effectively dealt with by the ED. ^{19;56;57} The study by Redstone reported that 24% of patients who presented to ED with problems that were subsequently triaged as non-urgent, attended ED because they felt they needed to be admitted to hospital. ⁵⁶

Being advised to attend ED by family friends or healthcare professionals

The views of family, friends and healthcare professionals were important contributory factors in patient decision making to utilize ED services in 11 of the included studies. Six studies reported that patients attended ED due to recommendations or referrals from other health professionals ^{19;55; 42;38;45,58} and 5 studies identified that patients attended due to the views of family and friends, ^{42;40;38;58;61} with some studies describing both family and friends and health care professionals advice as an explanatory factor. One study found that 52% of patients attended ED due to advice from a health care professional or friends and family. ³⁸ A study by Hodgins et al identified views of family and friends as one of the highest ranking explanatory factors behind ED attendance ⁴⁰ and Lobachova found that whilst 35% of patients attended ED due to being referred by other health professionals, 48% came due to advice from friends or family. ⁵⁸ The study by Penson described the most common reason for attendance being advice from others, but this was more usually advice from health professionals rather than family or friends. ¹⁹ One study identified that females were more likely to attend ED due to the recommendations of others than males ⁶¹ and that the source of the advice was more likely to be family and friends.

Why do people choose Emergency and Urgent care services?

Convenience in terms of location, not having to make appointment and opening hours.

The perceived convenience of emergency and urgent care services was a identified in 15 studies as a key driver in patient decision making, and this is also linked to negative views around inconvenient access to primary care. Access to primary care is often viewed as limited, due to more structured opening hours and perceptions around difficulty obtaining appointments, and there is a view that ED is more convenient due to factors such as 24 hour availability and not having to make an appointment. ^{43;38;62;56;50} In one study, 60% of patients viewed ED as more convenient than their PCP⁵⁶ and several other studies reported that people chose to visit ED for low urgency problems due to ED being closer or faster, ⁶³ the accessibility of the ED, ^{43,55} the convenience of the ED location ⁴² or service. ⁴⁰ Conversely, one study reported that patients attended ED with primary care problems even though few people believed they would be seen more quickly or that it was more convenient. ¹⁹

Individual patient factors (e.g. costs and transport).

This theme also relates to the convenience and primary care access themes. In some health systems, costs and transport options affected decision making and these were identified as explanatory factors for choosing Emergency and urgent care services in 8 studies. Four studies (3 from the USA and 1 from Australia) identified costs as an issue, 45,63;58;59 and in some cases reported that services users take into account the costs of using primary or EMS care when making decisions on which service to access. 45 One study identified that 15% of urgent care center service users chose to access that particular service due non-mandatory payment. Wilkin and colleagues reported that health care costs may prevent people from changing their current health seeking behaviour. 59

Transportation issues, for example, not having a car, prompted some service users to choose ED, ambulance or urgent care services rather than primary care and this was identified by 3

Why do people choose Emergency and Urgent care services?

studies. 45,59,64 One study reported that 34% of patients chose to use the ambulance service instead of primary care due to not having a car. However, for some population groups there were barriers to using out of hours and ED services and this affected their choice of service. For example, older people faced specific barriers to using ED and urgent care services. In particular, travelling at night and using the telephone were factors that dissuaded older people from using out of hours services; instead they preferred to wait for an appointment with a familiar PCP. Campbell found that out of hours decisions were often influenced by personal opinions around out of hours services and that trends differed between rural and urban areas, with people in rural areas often delaying contact until their own doctor was available, whereas people in urban areas were more likely to use out of hours emergency and urgent care services. 41

Discussion

We have identified 6 key themes that describe why patients choose to access emergency and urgent care instead of primary care for low urgency health problems. The themes are broad categories; each contain multiple and specific patient-derived explanatory factors and are applicable to emergency and urgent care health systems in most developed countries.

The factors identified in the themes are supported by other research. For example, a qualitative interview study to identify which aspects of the emergency ambulance service care are valued by service users found that service users had high levels of anxiety and valued the reassurance that was provided by the ambulance service. This directly supports the theme identified from this research around 'perceived urgency, anxiety and the value of reassurance from emergency based services'.

Perceptions of urgency may differ between patients and health care professionals. The study by Coleman identified a discrepancy between patients' perceptions of the seriousness of their health problem and related expectations of care, and the views of health care professionals.⁶⁰ This may lead to patients accessing care or treatment which is unnecessary due to a belief that the problem was serious and

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404 405 Why do people choose Emergency and Urgent care services?

supports the theme 'Perceived need for EMS or hospital care, treatment or investigations'. However, identifying whether patients are choosing care inappropriately is difficult and sometimes controversial; many cases are retrospectively determined as non-urgent and there is often disagreement amongst health professionals about appropriateness. 66 Even if there are more appropriate ways for patients to receive care this does not mean it is inappropriate for patients to attend ED. Some studies have shown that some patients face anxiety about whether they are choosing the right level of care and don't wish to be categorized as time wasters. ⁶⁷ In particular, older people are sometimes reluctant to access emergency care perceive without first seeking the views of other people and this can be a barrier to seeking timely emergency and urgent care.⁴⁹ In contrast, young adults are more likely to go to ED or seek urgent care than contact their PCP and have lower satisfaction with primary care services. Most studies reported that patients perceptions of access to and confidence in primary care was a key factor in low urgency ED attendances. Patient satisfaction with care is predictive of future health care choices⁶⁸ and when patients experience difficulties obtaining appointments or are unsatisfied with the care they receive from their PCP this may impact on future health seeking behaviour and choices. Past research shows that patients with an urgent health care problem are unwilling to wait more than 1 day for an appointment with their own physician.⁶⁹ Demand for unplanned services is rising and this has been shown to rise further when access to PCP care is reduced. ⁷⁰ A systematic review of primary care factors that impact on unscheduled secondary care use showed that better primary care access led to reduced unscheduled care, 71 with increased access to primary care leading to a reduction in ED attendances. Many people also value the convenience of ED, not having to make an appointment and access to specialist care if needed. Important drivers for ED use were identified using factor analysis by Ragin and colleagues and five factors were identified as having good reliability. These included convenience, belief that the problem was serious/medical necessity, preference for hospital facilities and individual patient factors related to cost of care and insurance. ⁷² Capp and colleagues looked in detail at the impact of health insurance on ED usage and identified that lack of access to alternative care was a key driver for low acuity ED attendance. 73 Whilst Kangovi and colleagues also identified patients of low socioeconomic status prefer hospital care over primary care because they view it as more convenient and accessible whilst also providing higher quality care for less cost. A study about ED closures by Hsia et al, found that ED closures disproportionately affected vulnerable communities, for example, those without medical

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Why do people choose Emergency and Urgent care services? insurance, minority groups or comorbidities.⁷⁵ It may be that convenience and accessibility issues are 406 407 more important to sub-groups who already experience difficulties accessing care. 408 Multiple sources have identified the views and advice of others as a key driver in ED utilisation. 409 However, young people are reported as more likely to directly seek urgent care or attend ED ⁷⁶ and a 410 criticism of some telephone based urgent care services is that advice can lead to a rise in ED attendances.77 411 412 As well as patient based factors, demand is likely to be influenced by a range of other characteristics and 413 factors. These include ageing populations with chronic conditions and complex health needs, socio-414 economic factors often related to deprivation and lack of social support, and policy decisions around 415 health planning and service provision, for example, access to primary care and geographical differences in 416 provision. Future research to identify independent risk factors associated with accessing emergency and 417 urgent care, as part of a population based whole system study, are required in order to identify and 418 describe the sources and impact of demand on the emergency and urgent care system as a whole and to 419 identify what demand is for different parts of the system and how these interact. 420 421 **Limitations** 422 This was a rapid review, therefore some aspects of systematic review methodology have been omitted or simplified in order to produce a review in a short timeframe.²⁶ By limiting the evidence to 1995 to 2016 423 424 we have ensured that the evidence assessed has context and relevance to current policy and practice. In 425 balancing the large scope of this review against the time and resource constraints, we aimed to provide a 426 broad overview of existing evidence and utilized rapid review methods to structure the review process. 427 For example, data extraction was focused towards the most pertinent evidence and information, rather 428 than an exhaustive critique of all available information and we used a framework based synthesis, which 429 is an efficient method for synthesising evidence to inform policy within short timescales.³¹ 430 431 As part of the review search strategy, we excluded non-English language studies, grey literature, abstracts 432 and conference items. We excluded non-english language studies as papers not published in English are

less likely be congruent to English and UK healthcare systems. As befits a systematic review of patient

Why do people choose Emergency and Urgent care services?

434 reported reasons for accessing emergency and urgent care, most of the evidence was from qualitative or 435 survey based research. Each of these methods has its limitations and we undertook a quality assessment to 436 ensure the studies included in this review met accepted quality thresholds. For example, the mean survey 437 response rate for included studies reporting survey data was >74%. This review examined empirical 438 evidence that may help explain why demand for emergency and urgent care services is changing. 439 Evidence was not assessed to identify or make recommendations regarding future services or optimum 440 service configuration. 441 442 Research and policy 443 Currently, most developed countries are exploring ways reverse what is often termed as a 'crisis in emergency medicine.⁷⁸ In particular, health-care policy makers are looking at methods to 444 445 reduce ED crowding and medically unnecessary use of emergency and urgent services, whilst at 446 the same time promoting methods to ensure patients receive care from the most appropriate 447 service. For example, in the UK, the NHS Five Year Forward View presents the case for redesigning current urgent and emergency care services. ⁷⁹ By understanding what drives 448 449 patients with low-urgency health-problems to access emergency and urgent health-care, this 450 research will help policy makers to plan future ways of managing demand so that service provision works for patients, is sustainable and helps people with urgent care needs access the 451 right care first time.³² 452 453 **Conclusions** 454 We identified 6 distinct reasons explaining why patients choose to access emergency and urgent 455 care services, for mainly low urgency health problems. Limited access to or confidence in 456 primary care, patient perceived urgency, convenience, views of family, friends or other health 457 professionals and a belief that their condition required the resources and facilities offered by a 458 particular healthcare provider were all key factors that influence patients when they make 459 decisions about whether to access emergency and urgent care and the type of emergency and 460 urgent care they choose. By understanding why more people are choosing to access these 461 services we are better able to direct and provide patients with the right care at the right time.

Why do people choose Emergency and Urgent care services?

- However there is a need to examine demand from a whole system perspective and in doing so,
- gain better understanding of demand for different parts of the emergency and urgent care system
- and the characteristics of patients within each sector.

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References

- Lowthian JA, Curtis AJ, Jolley DJ, Stoelwinder JU, McNeil JJ, Cameron PA. Demand at
- 478 the emergency department front door: 10-year trends in presentations. Med J Aust 2012;196:128-
- 479 32
- Department of Health. Accident and emergency attendances (data for 1987-88 to 2009-
- 481 10).http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/Performancedataandstatistics/Ac
- 482 cidentandEmergency/DH_077485 (Accessed December 2011)
- Drummond AJ. D. No room at the inn: overcrowding in Ontario's emergency
- 484 departments CJEM 2002;4:91-7
- 485 4 Pitts SR, Niska RW, Xu J, Burt CW. National Hospital Ambulatory Medical Care
- Survey: 2006 emergency department summary. Hyattsville, MD: National Center for Health
- 487 Statistics 2008.

- 488 5 Australian Institue of Health and Welfare Welfare. Australian hospital statistics 2009 -
- 489 10: emergency department care and elective surgery waiting times. Canberra: AHIW; 2010.
- 490 6 Schappert SM, Rechtsteiner EA. Ambulatory Medical Care Utilization Estimates for
- 491 2006. National Health Statistics Reports, Number 8, 2008.
- Nicholl J Mason S. Return of the "corridors of shame?". BMJ 2013;346:F4343.
- 493 8 Health and Social Care Information Centre (HSCIC) .Ambulance Services, England 2014
- 494 2015. 2015. www.hscic.gov.uk/catalogue/PUB17722/ambu-serv-eng-2014-2015-rep.pdf
- 495 (Accessed 2/8/2016)
- 496 9 Institute of Medicine. Emergency Medical Services At the Crossroads. Future of
- 497 Emergency Care Series, Washington DC, 2001.
- 498 10 McCallion T. NASEMSO Survey Provides Snapshot of EMS Industry 2011.
- 499 http://www.jems.com/articles/2011/11/nasemso-survey-provides-snapshot-ems-ind.html
- 500 (Accessed 2/8/16)
- Gallagher EJ Lynn SG. The etiology of medical gridlock: causes of emergency
- department overcrowding in New York City. Journal of Emergency Medicine 1990;8:785-90
- He J, Hou XY, Toloo S, Patrick JR, Fitzgeral G. Demand for hospital emergency
- departments: a conceptual understanding. World Journal of Emergency Medicine 2011;2:253-61.
- Boyle P, Pineeault R, Roberge D. Assessing Quebecs's multicomponant program to
- reduce emergency room overcrowding. Canadian Public Policy 1992;18:189-202.
- 507 14 Derlet R, Richardson J, Kravitz R. Frequent overcrowding in U.S. emergency
- departments. Academic Emergency Medicine 2001;8:151-5.
- Richardson LD, Asplin BR, Lowe RA. Emergency department overcrowding as a health
- 510 policy issues: past development, future directions. Annals of Emergency Medicine 2002;40 388-
- 511 93.
- 512 16 Di Somma S, Paladino L, Vaughan L, Lalle I, Magrini L, Magnanti M. Overcrowding in
- 513 emergency department: an international issue. Intern Emerg Med 2015 10:171-5.

- 514 17 Department of Health. Tackling demand together: A toolkit for improving urgent and
- emergency care pathways by understanding increases in 999 demand, 2009
- 516 http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum
- 517 _dh/groups/dh_digitalassets/documents/digitalasset/dh_106924.pdf (Accessed October 2016)
- Becker J, Dell A, Jenkins L, Sayed R. Reasons why patients with primary health care
- 519 problems access a secondary hospital emergency centre. . South African Medical Journal
- 520 2012;102:800.
- Penson R, Coleman P, Mason S, Nicholl J. Why do patients with minor or moderate
- 522 conditions that could be managed in other settings attend the emergency department?
- 523 Emergency Medicine Journal 2012;29:487-91.
- Lowthian JA, Jolley DJ, Curtis AJ, Currell A, Cameron PA Stoelwinder JU. The
- 525 challenges of population ageing: accelerating demand for emergency ambulance services by
- older patients, 1995 2015. Med J Aust 2011;194:574-8.
- Leonard C, Bein KJ, Latt M, Muscatello D, Veillard AS, Dinh MM. Demand for
- emergency department services in the elderly: An 11 year analysis of the Greater Sydney Area.
- 529 Emergency Medicine Australasia 2014;26:356-60.
- 530 22 Müller U, Winterhalder R, Businger A, Zimmermann H, Exadaktylos AK. Why do walk-
- in patients prefer a busy urban emergency department during office hours? A pilot survey of 200
- consecutive patients from Switzerland. Swiss Medical Weekly 2012;142:w13565.
- Huber CA, Roseman t, Zoller M, Eichler K, Senn O. Out-of-hours demand in primary
- care: frequency, mode of contact and reasons for the encounter in Switzerland. Journal Eval Cli
- 535 Pract 2011;17:174-9.
- 536 24 Gindi RM, Black LI, Cohen RA. Reasons for Emergency Room Use Among U.S. Adults
- Aged 18 64: National Interview Survey, 2013 and 2014 2016. National Health Statistics
- 538 Reports, 2016; 90.

- Turner J, Coster J, Chambers D, Cantrell A, Phung V-H, Knowles E, et al. What evidence
- is there on the effectiveness of different models of delivering urgent care? A rapid review. Health
- 541 Serv Deliv Res 2015;3.
- 542 26 Khangura S, Konnyu K, Cushman R, Grimshaw J, Moher D. Evidence summaries: the
- evolution of a rapid review approach. Syst Rev 2012;1;10.
- 544 27 Tricco AC, Antony J, Zarin W, Strifler L, Ghassemi M, Ivory J, et al. A scoping review
- of rapid review methods. BMC Med 2015;13:224.
- Peterson K, Floyd N, Ferguson L, Christensen V, Helfand M. User survey finds rapid
- 547 evidence reviews increase uptake of evidence by Veterans Health Administration leadership to
- inform fast-paced health-system decision-making. Systematic Reviews, 2016;5:132.
- 549 29 Miake-Lye, I.M., Hempel, S., Shanman, R. and Shekelle, P.G., 2016. What is an
- evidence map? A systematic review of published evidence maps and their definitions, methods,
- and products. Systematic reviews, 5(1), p.28.
- 552 30 Clapton J, Rutter D, Shariff N. Social Care Institute for Excellence Systematic Mapping
- Guidance. 2009. http://www.scie.org.uk/publications/researchresources/rr03.asp (accessed Feb
- 554 2017)
- 555 31 Dixon-Woods M. Using framework-based synthesis for conducting reviews of qualitative
- 556 studies BMC Med 2011;9;39.
- NHS England. High quality care for all, now and for future generations: transforming
- urgent and emergency care services in England—Urgent and Emergency Care Review End of
- 559 Phase 1 Report 2013.
- 560 http://www.nhs.uk/NHSEngland/keoghreview/Documents/UECR.Ph1Report.FV.pdf (accessed
- 561 27 June 2016).
- Booker M, Heawood A, Purdy S. Why do patients with 'primary care sensitive' problems
- access ambulance services? BMJ Open 2015;5:e007726.
- Richie, J and Spencer, L (1994), 'Qualitative data analysis for applied policy research', in
- Bryman and Burgess, eds., Analysing Qualitative Data, London: Routledge, p173-194.

- 566 35 Critical Appraisals Skills Programme (CASP) (accessed 9th March 2017
- 567 http://www.casp-uk.net/checklists)
- National Institute Health. Quality Assessment Tool for Observational Cohort and Cross-
- Sectional Studies (accessed 9 March 2017 https://www.nhlbi.nih.gov/health-pro/guidelines/in-
- 570 develop/cardiovascular-risk-reduction/tools/cohort)
- Moher D, Liberati A, Tetzlaff J, Altman DG, The Prisma Group. Preferred Reporting
- 572 Items for Systematic Reviews and Meta-Analyses: The PRISMA Statemen . PLoS Med
- 573 2009;6:7;e1000097.
- Nelson J. Why patients visit emergency units rather than use primary care services.
- 575 Emerg Nurse 2011;19:32-6.
- Worth A, Boyd K, Kendall M, Heaney D, Macleod U, Cormie P, et al. Out-of-hours
- 577 palliative care: a qualitative study of cancer patients, carers and professionals. Br J Gen Pract
- 578 2006;56:6-13.
- Hodgins MJ Wuest J. Uncovering factors affecting use of the emergency department for
- less urgent health problems in urban and rural areas. Can J Nurs Res 2007;39:78-102.
- Campbell NC, Iversen L, Farmer J, Guest C, MacDonald J. Qualitative study in rural and
- urban areas on whether and how to consult during routine and out of hours. BMC Fam Pract
- 583 2006;7;26.
- Oetjen RM, Oetjen DM, Rotarius T, Liberman A. Emergency department utilization by
- insured users: a study of motivating factors. Health Care Manag 2010;29:199-212.
- Fieldston ES, Alpern ER, Nadel FM, Shea JA, Alessandrini EA. A qualitative assessment
- of reasons for nonurgent visits to the emergency department: parent and health professional
- opinions. Pediatr Emerg Care 2012;28:220-5.
- Gomide MFS, Pinto IC, de Figueiredo LA. Accessibility and demand at an Emergency
- 590 Care Unit: the user's perspective. Acta Paul Enferm 2012;25:19-25.

- 591 45 Shaw EK, Howard J, Clark EC, Etz RS, Arya R, Tallia AF. Decision-making processes
- of patients who use the emergency department for primary care needs. J Health Care Poor
- 593 Undeserved 2013;24:1288-305.
- 594 46 Amiel C, Williams B, Ramzan F, Islam S, Ladbrooke T, Majeed A, et al. Reasons for
- attending an urban urgent care centre with minor illness: a questionnaire study. Emerg Med J
- 596 2014;31:E71-5.
- Moll van Charante EP, van Steenwijk-Opdam PC, Bindels PJ. Out-of-hours demand for
- 598 GP care and emergency services: patients' choices and referrals by general practitioners and
- ambulance services. BMC Fam Pract 2007;8;46.
- Foster J, Dale J, Jessopp L. Qualitative study of older people's views of out-of-hours
- 601 services. Br J Gen Pract 2001;51:719-23.
- Benger JR Jones V. Why are we here? A study of patient actions prior to emergency
- hospital admission. Emerg Med J 2008;25:424-7.
- 604 50 Carret MLV Fassa A, Kawachi I. Demand for emergency health service: factors
- associated with inappropriate use. BMC Health Serv Res 2007;7;131.
- Norredam M, Mygind A, Nielsen AS, Bagger J, Krasnik A. Motivation and relevance of
- 607 emergency room visits among immigrants and patients of Danish origin. Eur J Public Health
- 608 2007;17:497-502.
- Adamson J, Ben-Shlomo Y, Chaturvedi N, Donovan J. Exploring the impact of patient
- views on 'appropriate' use of services and help seeking: a mixed method study. Br J Gen Pract
- 611 2009;59:e226-33.
- Booker MJ, Simmonds RL, Purdy S. Patients who call emergency ambulances for
- primary care problems: a qualitative study of the decision-making process. Emerg Med J;31:448-
- 614 52.
- Agarwal S, Banerjee J, Baker R, Conroy S, Hsu R, Rashid A, et al. Potentially avoidable
- emergency department attendance: interview study of patients' reasons for attendance. Emerg
- 617 Med J 2012;29:e3.

- 618 55 Afilalo J, Marinovich A, Afilalo M, Colacone A, Leger R, Unger B, Giguere C.
- Nonurgent Emergency Department Patient Characteristics and Barriers to Primary Care.
- 620 Academic Emergency Medicine 2004;11:1302-10.
- Redstone Paul; Vancura Jennifer L; Barry Daniel; Kutner Jean S. Nonurgent Use of the
- Emergency Department. Journal of Ambulatory Care Management 2008;31:370-6.
- 623 57 Masso M, Bezzina A, Siminski P, Middleton R, Eagar K. Why patients attend emergency
- departments for conditions potentially appropriate for primary care: Reasons given by patients
- and clinicians differ. Emergency Medicine Australasia 2007;2007:333-40.
- 626 58 Lobachova L, Brown DFM, Sinclair J, Chang YC, Thielker KZ, Nagurney JT. Patient
- and provider perceptions of why patients seek care in emergency departments. J Emerg Med
- 628 2014;46:104-12.
- 629 59 Wilkin HA, Cohen EL, Tannebaum MA. How low-income residents decide between
- emergency and primary health care for non-urgent treatment. Howard J Commun 2012;23:157-
- 631 74.
- 632 60 Coleman P, Irons R, Nicholl J. Will alternative immediate care services reduce demands
- for non-urgent treatment at accident and emergency? Emerg Med J 2001;18:482-7.
- 634 61 McGuigan T, Watson P. Non-urgent attendance at emergency departments. Emerg Nurse
- 635 2010;18:34-8.
- 636 62 Scott DR, Batal HA, Majeres S, Adams JC, Dale R, Mehler PS. Access and care issues in
- urban urgent care clinic patients. BMC. BMC Health Serv Res;9:222.
- 638 63 Gill JM Riley AW. Nonurgent Use of Hospital Emergency Departments: Urgency from
- the Patient's Perspective. J Fam Pract 1996:491-7.
- Toloo G, FitzGerald GJ, Aitken PJ, Ting JYS, McKenzie K, Rego J, et al. Ambulance use
- is associated with higher self-rated illness seriousness: user attitudes and perceptions. Academic
- 642 Emergency Medicine 2013;20:576-83.

- Togher F, O'Cathain A, Phung VH, Turner J, Siriwardena N. Reassurance as a key
- outcome valued by emergency ambulance service users: a qualitative interview study. Health
- 645 Expectations 2014;18:2951-61.
- 646 Richardson S, Ardagh M, Hider P. New Zealand health professionals do not agree about
- what defines appropriate attendance at an emergency department NZMJ 2006;119.
- 648 67 Goode J, Greatbatch D, O'Cathain A, Luff D, Hanlon G, Strangleman T. Risk and the
- responsible health consumer: the problematics of entitlement among callers to NHS Direct.
- 650 Critical Social Policy 2004;24:210-32.
- Ware JE Jr, Davies AR. Behavioral consequences of consumer dissatisfaction with
- medical care. Eval Program Plan 1983;6:291-7.
- 653 69 Love MM, Mainous AG III. Commitment to a regular physician: how long will patients
- wait to see their own physician for acute illness? J Fam Pract 1999;48:202-7.
- 655 70 Cecil E, Bottle A, Cowling TE, Majeed A, Wolfe I, Saxena S. Primary Care Access,
- 656 Emergency Department Visits, and Unplanned Short Hospitalizations in the UK. Pediatrics
- 657 2016;137:e20151492.
- Huntley A, Lasserson D, Wye L, Morris R, Checkland K, England H, et al. Which
- 659 features of primary care affect unscheduled secondary care use? A systematic review. BMJ Open
- 660 2014;4:e004746.
- Ragin DF1, Hwang U, Cydulka RK, Holson D, Haley LL Jr, Richards CF, Becker BM,
- Richardson LD; Reasons for using the emergency department: results of the EMPATH Study.
- 663 Acad Emerg Med. 2005;12(12):1158-66.
- 664 73 Capp R, Rooks SP, Wiler JL, Zane RD, Ginde AA. National study of health insurance
- type and reasons for emergency department use. J Gen Intern Med. 2014 Apr;29:621-7.
- Kangovi S1, Barg FK, Carter T, Long JA, Shannon R, Grande D. Understanding why
- patients of low socioeconomic status prefer hospitals over ambulatory care. Health Aff
- 668 (Millwood). 2013 Jul;32(7):1196-203.

Why do people choose Emergency and Urgent care services?

- Hsia RY, Kellerman AL, Shen YC. Factors associated with closures of emergency
- departments in the United States. JAMA. 2011;305:1978-1985.
- 671 76 Citizens Advice. Younger adults more likely to turn to walk-in centres and A&E, 2014.
- https://www.citizensadvice.org.uk/about-us/how-citizens-advice-works/media/press-
- 673 releases/younger-adults-more-likely-to-turn-to-walk-in-centres-and-a-amp-e/ (Accessed
- 674 21/10/2016)
- Turner J, O'Cathain A, Knowles E, Nicholl J. Impact of the urgent care telephone service
- NHS 111 pilot sites: a controlled before and after study. BMJ Open 2013;3:e003451.
- 677 78 O'Shea, J. The Crisis in America's Emergency Rooms and What Can Be Done. Health
- 678 Care Reform, The Heritage Foundation, 2008.
- NHS five year forward. NHS England, 2014. (accessed 9/3/17
- 680 https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf)

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