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What do we know about why EUC demand has increased?

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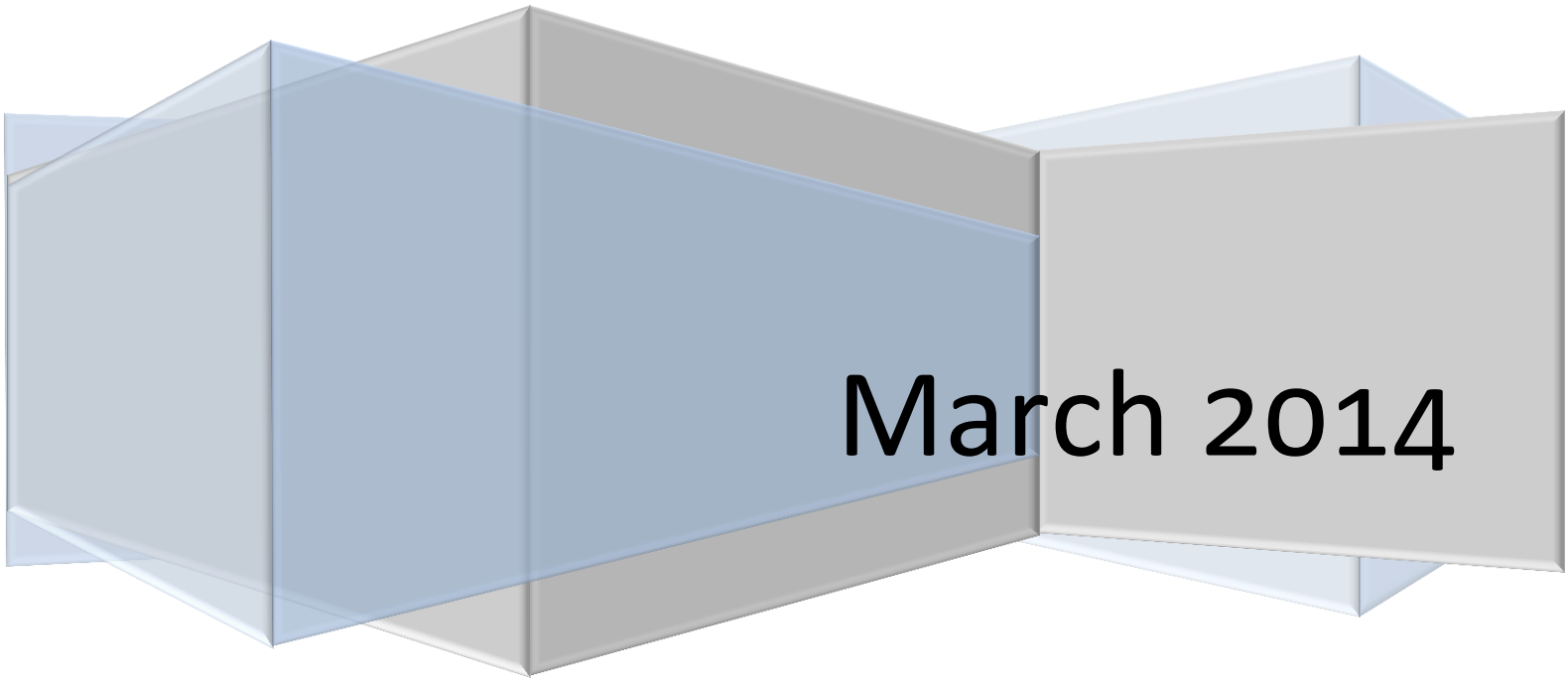

Research investigating factors behind the growth in demand for EUC systems has focused on demand in individual service (particularly pre-hospital ambulance and the emergency department) rather than demand across the whole system. The factors identified in reviewed studies are outline in the table below by service. Systematic reviews of evidence where included where available as these studies reviewed evidence from across a number of primary studies. Primary studies were included if published after the systematic review was carried out or where studies were not included in the reviews. The factors associated with increasing ED presentations appear to be multiple, complex and inter-related (see Table 1 below)

Table 1: Factors identified as contributing to increased demand for both ED & 999 services

Identified reasons for increased demand	References
• **Ageing population** - Fastest growth in ED attendance reported in patients over the age of 65 (proportions >65 attending EDs varied between 12-21% - Older cohorts (i.e >85 years) are 4 times as likely to present to ED as and 8 times more likely to be transported as younger adult age groups • **Underlying factors behind older age ED/999 use:** - Long term medical conditions increases with age (e.g accounting for >80% of ED visits by older people) - Fallers twice as likely to be older - Self-care: functional impairment coupled with a lack of support - Nursing residential care populations - evidence of greater use than older people in own homes - Factors that promote access to primary medical care are associated with reduced ED utilization - Male gender - Lower socioeconomic status	Lowthian et al 2011, Lowthian et al 2012 Grunier et al 2011, Ingarfield et al 2009, McClusker et al 2003 Lowthian 2011a
• **Loneliness and lack of family support** - Fragmentation of family units and government policies encouraging older people to stay in the home associated with increased use of emergency services	Lowthian 2011 McClusker et alm 2003, Lowthian 2011a
• **Changes in organisation of psychiatric care (care from hospital to community based settings) and frequent attendees** - Ten-fold increase in ED attendance for patients with psychiatric problems reported in one study / increases reported internationally	Lowthian 2011
• **Changes in organisation of primary care services, reduced access to primary care** - Linked to issues such as change to out of hours GP contract (UK), reduction in GP numbers (Australia), payments for consultations, unsuccessful attempts to access care (USA) - Access to a primary care provider reduced utilisation of ED services	Lowthian 2011 Gruneir et al 2011, Lowthian et al 2012
• **Health promotion and health awareness** - Increased awareness of need for early medical intervention for certain conditions (e.g stroke) due to health programmes/ media campaigns (e.g stroke). Maybe increased expectation for immediate care from public (if they perceive urgent situation). - Evidence of campaign reducing 999 use in Japan	Lothian et al 2011, Lowthian et al 2011a
• **Convenience** - Convenience of 'one stop' shop with full range of	Lowthian et al 2011, Lothian et

specialists/diagnostics identified in several international studies.	al 2012,
• **Appropriateness of use and risk aversion** - Potentially inappropriate visits from nursing homes due to lack of appropriate levels of primary care in their place of residence - Self-referred younger patients identified as potentially inappropriate attendees (reduced utilisation of primary care). - Inappropriate use of 999 services identified internationally - Differences in patient and clinician perceptions of appropriateness of use of 999/ED	Lowthian et al 2011, Lowthian et al 2012, Lowthian et al 2011a
• **Increased ambulance use (impacting on ED)** - Emergency ambulances demand rising by an average of 6.5% per year, 60% resulting in transportation.	Lothian et al 2011,
• **Deprivation** - Lower socioeconomic status associated with increased use of 999 services	Lothian et al 2011a

Further investigation is required into the demographic, socioeconomic and health-related factors) associated with use of ED/999 services (with a particularly focus on older people. This would facilitate untangling the dynamics of the increase in EUC demand. Effective management of future demand will depend on a comprehensive analysis that goes beyond simple demographics of age and population growth. A clear understanding of reasons for high usage of emergency services is necessary to best direct attempts to meet genuine needs and to reduce inappropriate usage of the EUC services.

Patient priorities and decision-making when accessing Emergency and Urgent Care (EUC)

A limited number of studies have investigated patient decision-making when accessing services with unscheduled care needs. These issues and the factors identified are outlined in Table 2 below.

Most of the studies have focused on selected populations attending the ED or dialling 999 who may have been amenable to alternative, primary care based intervention. There is limited evidence that patients' perception of the severity of their need is the major reason for accessing the ED and 999 (rather than accessing primary and community based alternatives). However there is also evidence that patients, even with minor conditions, perceive that alternative services may not be able to meet their unscheduled care needs.

Larger, multi-centre studies are required to investigate patient perceptions of care alternatives when accessing emergency and urgent care. A better understanding of why patients access particular EUC services is crucial in ensuring any alternatives are acceptable to those patients with unscheduled care needs. There appears to be the potential for education of the public in awareness of the roles, skills and services provided by different parts of the EUC system.

Table 2: Factors identified as reasons for accessing EUC

Identified reasons patient decision to call 999	**Reference**
Patient perception of severity of the condition/perceived medical necessity	Jacob, S. L., Jacoby, J., et al. (2008), Shah et al 2008 Yarris et al 2006 Saunders 2000
Other person calling ambulance Bystanders likely to dial 999, whereas patients and their relatives prefer to access primary care.	Jacob & Jacoby (2008) Yarris et al 2006
Paramedic recommendation	Yarris et al 2006
Perceived shorter waiting time in ED	Yarris et al 2006
Perceived shorter time to treatment/quicker access	Saunders 2000, Yarris et al 2006
Perceived competence of ambulance service to 'deal with anything'	Booker et al 2012
Perception of limitation of primary care based urgent care to deal with issue	Booker et al 2012
influences of previous urgent care experiences in decision making i.e negative experiences of primary care based services	Booker et al 2012
Interpersonal factors and the assessment of risk in decision making	Booker et al 2012
Identified reasons patient decision to access ED	
Perceived severity of their condition	Benger & Jones 2008
Person other patient accessing help	Benger & Jones 2008
Advised by someone else the most frequent reason for presenting to the ED was 'being advised to attend by someone else'. The 'adviser' was more likely to be a health professional (doctor or nurse or NHS Direct) than to be 'friends or family'.	Penson et al 2012
Perceptions of seriousness Different factors categorised including need to see specialist, thought had fracture, wanted to see doctor as soon as possible	Penson et al 2012
Positive experience of ED in past	Penson et al 2012,

	Benger & Jones 2008
Identified reasons why patient decision not access primary care	
Perceived severity of their condition	Benger & Jones 2008, Penson et al 2012
Delay for appointment likely	Benger & Jones 2008, Penson et al 2012
Services unavailable out of hours	Benger & Jones 2008
Referral to ED likely	Benger & Jones 2008, Penson 2012

Media campaigns

Evidence for impact of media campaigns on patient use of EMS services is mainly focused on patients with acute conditions such as AMI (i.e. reducing delay in access). Only one study looked at the role of media campaigns in reducing demand for EMS services and more research is required to evaluate the targeting of campaigns to encourage the appropriate use of EUC services. However, an improved understanding of why patients access EUC services is required before media campaigns can be designed to impact on the appropriate patient use of these services.

Impact of media campaigns on health services utilisation	**Reference**
Limited evidence for impact of medial campaigns on reducing delay to treatment for MI patients; may increase ED visits and 999 calls	Kainth 2004
Reduction in ambulance service transport of both serious and non-serious illness during 20 month period of media campaign	Ohshsige et al 2008

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