

Lincolnshire Health & Wellbeing Board Draft Pharmaceutical Needs Assessment 2018

This PNA has been produced by Soar Beyond, contracted by Lincolnshire County Council. The production has been overseen by the PNA Steering Group for Lincolnshire Health and Wellbeing Board with authoring support from Soar Beyond Ltd

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Section 1: Introduction

1.1 Background

The Health Act 2009,¹ made amendments to the NHS Act 2006 requiring each Primary Care Trust (PCT) to assess the needs for pharmaceutical services in its area and publish a statement of its assessment and any revised assessment. The regulations required the Pharmaceutical Needs Assessment (PNA) to be published by 1st February 2011. Lincolnshire PCT produced its first PNA in February 2011.

The responsibility for the development, publishing and updating of PNAs became the responsibility of Health and Wellbeing Boards (HWBs) following the Health and Social Care Act 2012.² The Act dramatically reformed the NHS from 1st April 2013. PCTs were abolished and HWBs, Clinical Commissioning Groups (CCGs) and NHS England were formed.

- HWBs, hosted by each 'upper tier' local authority, have their membership drawn from local leaders (including NHS England, CCGs and local government) and are responsible for the continual improvement of the health and wellbeing of the local population
- CCGs are clinically-led NHS bodies responsible for planning, purchasing and monitoring the majority of local health services including hospital, community, emergency and mental health care
- NHS England oversees the operations of the CCGs as well as commissioning primary and specialist services (such as cancer care). Along with CCGs, it has the responsibility of improving health outcomes and reducing health inequalities

The NHS (Pharmaceutical and Local Pharmaceutical Services) Regulations 2013 (SI 2013/349),³ hereafter referred to as the 'Pharmaceutical Regulations 2013' came into force on 1st April 2013. Unless required to be produced earlier, the Pharmaceutical Regulations 2013 permitted HWBs a temporary extension of the PNAs previously produced by the PCT; HWBs were then required to publish their first PNA by 1st April 2015 at the latest. The Pharmaceutical Regulations 2013 require each HWB to publish a statement of its revised assessment within three years of its previous publication and this document fulfils this regulatory requirement.

The Pharmaceutical Regulations 2013 were updated by the National Health Service (Pharmaceutical and Local Pharmaceutical Services) (Amendment and Transitional Provision) Regulations 2014 on 1st April 2014. This PNA has considered these amendments but the Pharmaceutical Regulations 2013 have been referenced throughout.

Since the 2015 PNA there have been several contractual changes affecting community pharmacies. These are considered separately below.

¹ Health Care Act 2009 - http://www.legislation.gov.uk/ukpga/2009/21/contents

² Health and Social Care Act 2012 - http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted

³ The NHS (Pharmaceutical and Local Pharmaceutical Services) Regulations 2013 http://www.legislation.gov.uk/uksi/2013/349/contents/made

Essential Small Pharmacy Scheme (ESPS)

Financial support for ESPS⁴ came to an end on 31st March 2015. Arrangements had existed for many years which provided modest financial support for small pharmacies in areas where they were needed for patients, but where the level of business was otherwise too low for a pharmacy to be viable. At the time, it was estimated there were no more than 100 such pharmacies in England. There are no pharmacies within Lincolnshire HWB on LPS contracts

Flu Vaccination Service

On 20th July 2015, as part of the 2015-16 community pharmacy funding settlement, NHS England agreed to allow community pharmacies in England to offer a seasonal influenza (flu) vaccination service for patients in at-risk groups. This became the fifth Advanced Service in the English Community Pharmacy Contractual Framework (CPCF) and provision of the service commenced from 16th September 2015. The service has continued to be recommissioned for subsequent flu seasons. Those pharmacies which provided the service for the 2015-16 flu season are listed in Appendix A.

NHS Urgent Medicines Supply Advanced Service (NUMSAS)

On 20th October 2016, the Department of Health (DH) and NHS England announced that as part of the 2016-17 and 2017-18 community pharmacy funding settlement, money from the PhIF would be used to fund the national pilot NUMSAS⁵ from community pharmacy. The service is commissioned to run from 1st December 2016 to 31st March 2018 with a review point to consider progress in September 2017. The service is not directly accessible and can only be accessed via a referral from an urgent care provider, e.g. NHS 111, who holds a list of providers of the service. There is no publicly-available list of providers of the service.

The PNA recognises that a funded service which supports the supply of urgent medicines from pharmacies would reduce the burden on urgent care services and GPs and improve patient care. Consideration will be given to the type of commissioned service that would be most beneficial once the NUMSAS service evaluation is complete.

Pharmacy Access Scheme (PhAS)

At the same time, the DH confirmed the introduction of a Pharmacy Access Scheme (PhAS)⁶, with the aim to protect access in areas where there are fewer pharmacies with higher health needs and ensure no area is left without access to NHS community pharmaceutical services. There are 25 pharmacies in Lincolnshire funded under the PhAS.

Quality Payment Scheme

The Department of Health (DH) has introduced a Quality Payments Scheme⁷ as part of the Community Pharmacy Contractual Framework in 2017/18. This will involve payments being made to community pharmacy contractors meeting certain gateway and quality criteria.

⁴ PSNC ESPS https://psnc.org.uk/contract-it/pharmacy-regulation/essential-small-pharmacies/

⁵ PSNC NUMSAS https://psnc.org.uk/services-commissioning/urgent-medicine-supply-service/

⁶ PSNC PhAS https://psnc.org.uk/contract-it/pharmacy-access-scheme-phas/

⁷ PSNC Quality Payment Scheme https://psnc.org.uk/services-commissioning/essential-services/quality-payments/

Pharmacy Consolidations

On 5th December 2016, an amendment to the Pharmaceutical Regulations 2013 came into effect affecting 'pharmacy consolidations'⁸. This allowed NHS pharmacy businesses to apply to consolidate the services provided on two or more sites into a single site.

Applications to consolidate are dealt with as 'excepted applications' under the Pharmaceutical Regulations 2013, which means in general terms that they will not be assessed against the PNA.

Community Pharmacy Reforms

Community Pharmacy has been subject to funding changes reflecting nationally driven policy developments. As part of the NHS' need to deliver £22 billion in efficiency savings by 2020/21 the government has imposed a two-year funding package on community pharmacy, with a £113 million reduction in funding in 2016/17 taking the total funding to £2.687 billion for 2016/17, followed by a reduction in 2017/18 to £2.592 billion for the financial year. This will see funding levels from April 2017 drop by around 7.5% compared with November 2016 levels. These changes came in to effect from December 2016 and will have been implemented throughout 2017⁹.

There is concern within Community Pharmacies about the potential impact of these changes however at the time of publication (1st December 2017) no definite detail has been provided and any changes to this situation and the subsequent impact on services will be considered post consultation should the need arise.

The data cut off point used for this PNA is 1st August 2017 therefore any changes made after this date are not reflected at this stage to avoid speculation about the impact of the government's changes on provision locally.

1.2 Purpose of the PNA

NHS England is required to publish and maintain 'pharmaceutical lists' for each HWB area. Any person wishing to provide NHS pharmaceutical services is required to be listed on the pharmaceutical list. NHS England must consider any applications for entry onto the pharmaceutical list. The Pharmaceutical Regulations 2013 require NHS England to consider applications to fulfil unmet needs determined within the PNA of that area, or applications for benefits unforeseen within the PNA. Such applications could be for the provision of NHS pharmaceutical services from new premises or to extend the range or duration of current NHS pharmaceutical services offered from existing premises.

As the PNA will become the basis for NHS England to make determinations on such applications, it is therefore prudent that the PNA is compiled in line with the Regulations and with due process, and that the PNA is accurately maintained and up to date.

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⁸ PSNC Pharmacy Consolidations https://psnc.org.uk/contract-it/pharmacy-mergers-consolidations/

⁹ Community Pharmacy Reforms https://www.gov.uk/government/publications/community-pharmacy-reforms

Although decisions made by NHS England regarding applications to the pharmaceutical list may be appealed to the NHS Family Health Services Appeals Unit, the final published PNA cannot be appealed. It is likely the only challenge to a published PNA will be through application for a judicial review of the process undertaken to conclude the PNA.

The PNA should also be considered alongside the Joint Strategic Needs Assessment (JSNA).¹⁰ For the purpose of this PNA, the 2017 JSNA has been used.

The PNA will identify where pharmaceutical services address public health needs identified in the JSNA as a current or future need. Through decisions made by the local authority, NHS England and the CCGs, these documents will jointly aim to improve the health and wellbeing of the local population and reduce inequalities.

1.3 Scope of the PNA

The Pharmaceutical Regulations 2013 detail the information required to be contained within a PNA. A PNA is required to measure the adequacy of pharmaceutical services in the HWB area under five key themes:

- Necessary services: current provision
- Necessary services: gaps in provision
- Other relevant services: current provision
- Improvements and better access: gaps in provision
- Other services

In addition, the PNA details how the assessment was carried out. This includes:

- How the localities were determined
- The different needs of the different localities
- The different needs of people who share a particular characteristic
- A report on the PNA consultation

To appreciate the definition of 'pharmaceutical services' as used in this PNA, it is important to understand the types of NHS pharmaceutical providers comprised in the pharmaceutical list maintained by NHS England. They are:

- Pharmacy contractors
- Dispensing appliance contractors
- Local pharmaceutical service providers
- Dispensing doctors

For the purposes of this PNA, 'pharmaceutical services' has been defined as those which are/may be commissioned under the provider's contract with NHS England. A detailed description of each provider type, and the pharmaceutical services as defined in their contract with NHS England, is set out below.

¹⁰ Joint Strategic Needs Assessment (JSNA): Lincolnshire - http://www.research-lincs.org.uk/Joint-Strategic-Needs-Assessment.aspx

1.3.1 Pharmacy contractors

Pharmacy contractors operate under the CPCF initially agreed in 2005¹¹ which has undergone several contractual changes and amendments, the most recent of which covers 2016-18. The CPCF sets three levels of service under which pharmacy contractors operate.

Essential services – these are nationally negotiated and must be provided from all pharmacies:

- Dispensing of medicines
- Repeat dispensing
- Safe disposal of unwanted medicines
- Promotion of healthy lifestyles
- Signposting
- Support for self-care
- Clinical governance
- Dispensing appliances (if considered 'normal course of business'. Contractor does have the ability to decide not to dispense at all)

Advanced services – there are six advanced services within the CPCF. They are negotiated nationally and any contractor may provide any of these services if they meet the requirements set out in the Pharmaceutical Services (Advanced and Enhanced Services) (England) Directions 2013, the '2013 Directions'. They are:

- Medicines Use Reviews (MURs)
- New Medicine Service (NMS)
- Appliance Use Reviews (AURs)
- Stoma Appliance Customisation (SAC)
- NHS Urgent Medicines Supply Advanced Service (NUMSAS)
- Flu vaccination service

Map F illustrate the Pharmacies which provide Medicine Use Review and New Medicine Services.

In Lincolnshire, NHS England commissions all six advanced services from community pharmacies. A full list of advanced services providers in Lincolnshire (correct as of 1st August 2017) can be found in Appendix A.

Enhanced services – these were published alongside the 2013 Directions. They are negotiated locally by NHS England Area Teams and may only be provided by contractors directly commissioned by NHS England.

¹¹ NHS England. Community Pharmacy Contractual Framework for 2016-18 - https://www.england.nhs.uk/commissioning/primary-care/pharmacy/framework-1618/

¹² The 2013 Directions - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193012/2013-03-12_-_Advanced_and_Enhanced_Directions_2013_e-sig.pdf

Enhanced services are:

- Anticoagulant monitoring service
- Care home service
- Disease-specific management service
- Gluten-free supply service
- Independent prescribing service
- Home delivery service
- Language access service
- Medication review service
- Minor ailment service
- Needle and syringe exchange service*
- On-demand availability of specialist drugs service
- Out-of-hours service
- Patient group direction service
- Prescriber support service
- Schools service
- Screening service*
- Stop smoking service*
- Supervised administration service*
- Supplementary prescriber service

The responsibility for public health services transferred from PCTs to local authorities with effect from 1st April 2013.

In Lincolnshire, these services* are currently commissioned by Lincolnshire County Council (LCC) but are not considered enhanced or pharmaceutical services. The 2013 Directions, however, permit NHS England to commission them from pharmacy contractors if asked to do so by a local authority or CCG. In this case, if commissioned by NHS England they are enhanced services and fall within the definition of pharmaceutical services.

Pharmacy contractors comprise both those located within the Lincolnshire as listed in Appendix A, those in neighbouring HWB areas and remote suppliers, such as distance-selling pharmacies. Although distance-selling pharmacies may provide services from all three levels as described above, and must provide all essential services, they may not provide essential services face-to-face on the premises.

Additionally, they must provide services to the whole population of England. There are three distance-selling pharmacies located within Lincolnshire (an increase of two from the previous 2015 PNA). It should be noted that all distance-selling pharmacies throughout England (there were 266 in 2015-16,¹³ an increase from 211 in 2014) can provide services to Lincolnshire.

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¹³ General Pharmaceutical Services in England – 2006/7 to 2015/16: http://digital.nhs.uk/catalogue/PUB22317

1.3.2 Dispensing Appliance Contractors (DACs)

Dispensing Appliance Contractors (DACs)¹⁴ operate under the Terms of Service for Appliance Contractors as set out in Schedule 5 of the Pharmaceutical Regulations 2013. They can supply appliances against an NHS prescription, such as stoma and incontinence aids, dressings, bandages etc.

DACs must provide a range of essential services such as dispensing of appliances, advice on appliances, signposting, clinical governance and home delivery of appliances. In addition, DACs may provide the advanced services of Appliance Use Reviews (AURs) and Stoma Appliance Customisation (SAC).

Pharmacy contractors, dispensing doctors and local pharmaceutical service (LPS) providers may supply appliances but DACs are unable to supply medicines.

There is currently one DAC in the Lincolnshire however, the population can access DACs from elsewhere in the UK if required. There were 112 DACs in England 2015-16.¹⁵ A full list of DACs in England may be found at the NHS Choices website.

1.3.3 Local Pharmaceutical Service (LPS) providers

A pharmacy provider may be contracted to perform specified services to their local population or a specific population group.

This contract is locally commissioned by NHS England and provision for such contracts is made in the Pharmaceutical Regulations 2013 in Part 13 and Schedule 7. Such contracts are agreed outside the national framework although may be over and above what is required from the national contract. Payment for service delivery is locally agreed and funded.

There are no LPS pharmacies in Lincolnshire.

1.3.4 Dispensing GP practices

The Pharmaceutical Regulations 2013, as set out in Part 8 and Schedule 6, permit GPs in certain areas to dispense NHS prescriptions for defined populations.

These provisions are to allow patients in rural communities, who do not have reasonable access to a community pharmacy, to have access to dispensing services from their GP practice. Reasonable access is defined as a distance of more than one mile (1.6km) from a pharmacy's premises (excluding any distance-selling chemist premises). Dispensing GP practices therefore make a valuable contribution to dispensing services although they do not offer the full range of pharmaceutical services offered at community pharmacies. Dispensing GP practices can provide such services to communities within rural areas known as 'controlled localities'.

¹⁴ NHS Choices – Dispensing Appliance Contractors: https://www.nhs.uk/Service-Search/pharmacies/appliancepharmacies

¹⁵ General Pharmaceutical Services in England – 2015/16: http://www.hscic.gov.uk/searchcatalogue?productid=13373&topics=1%2fPrimary+care+services%2fCommunity+pharmacy+services&sort=Relevance&size=10&page=1#top

GP premises for dispensing must be listed within the pharmaceutical list held by NHS England and patients retain the right of choice to have their prescription dispensed from a community pharmacy, if they wish.

There are 64 dispensing GP practices located in Lincolnshire, as illustrated in Map D.

1.3.5 Other providers of pharmaceutical services in neighbouring HWB areas

There are nine other HWB areas which border the Lincolnshire:

- Norfolk HWB
- Cambridgeshire HWB
- Rutland HWB
- Leicestershire HWB
- Nottinghamshire HWB
- Northamptonshire HWB
- North East Lincolnshire HWB
- North Lincolnshire HWB
- Peterborough HWB

In determining the needs of, and pharmaceutical service provision to, the population of Lincolnshire, consideration has been made to the pharmaceutical service provision from the neighbouring HWB areas.

1.3.6 Other services and providers in Lincolnshire

As stated in section 1.3, for this PNA 'pharmaceutical services' have been defined as those which are, or which may be, commissioned under the provider's contract with NHS England.

The following are providers of pharmacy services in Lincolnshire but are not defined as pharmaceutical services under the Pharmaceutical Regulations 2013.

NHS Hospitals

- Stamford and Rutland Hospital, Ryhall Road, Stamford PE9 1UA
- Johnson Community Hospital, Spalding Road, Pinchbeck, Spalding PE11 3DT
- Lincoln County Hospital, Greetwell Road, Lincoln LN2 5QY
- Grantham and District Hospital, Manthorpe Road, Grantham NG31 8DG
- Pilgrim Hospital Boston, Sibsey Road, Boston PE21 9QS
- County Hospital Louth, High Holme Road, Louth LN11 0EU
- Skegness Hospital, Dorothy Avenue, Skegness PE25 2BS
- John Coupland Hospital, 292 Ropery Road, Gainsborough DN21 2NT

There are several urgent care services available to the population of Lincolnshire, including two Urgent Care Centres, five Minor Injury Units, one Minor Illness Unit and one Walk-in Centre.

Urgent Care Centres

- Skegness Hospital, Dorothy Avenue, Skegness PE25 2BS
- Louth Hospital, High Holme Road, Louth LN11 0EU

Minor Injury Units

- John Coupland Hospital, 292 Ropery Road, Gainsborough DN21 2NT
- Johnson Community Hospital, Spalding Road, Pinchbeck, Spalding PE11 3DT
- Sleaford Medical Group, Swinderby, Lincoln LN6 9PT
- Grantham and District Hospital, Manthorpe Road, Grantham NG31 8DG
- Stamford and Rutland Hospital, Ryhall Road, Stamford PE9 1UA

Minor Illness Unit

Sleaford Medical Group, Swinderby, Lincoln LN6 9PT

Walk-in Centre

Lincoln Walk-in Centre, Monks Road, Lincoln LN2 5HP

Prisons

In Lincolnshire there are two prisons and one Immigration Removal Centre.

- HMP Lincoln (Category B, male), Greetwell Road, Lincoln LN2 4BD
- HMP North Sea Camp (Category D, male), Croppers Lane, Freiston, Boston PE22
 0QX
- IRC Morton Hall, Swinderby, Lincoln LN6 9PT

The following are services provided by NHS pharmaceutical providers in Lincolnshire, commissioned by organisations other than NHS England or provided privately, which are therefore out of scope of the PNA.

Local authority-commissioned services – Lincolnshire County Council commissions the following 'Locally Commissioned Services' (LCS) from community pharmacies in Lincolnshire.

- Smoking cessation services
- Sexual Health Services
- Emergency Hormonal Contraception (EHC) services
- Pregnancy testing
- Pharmacy-Based Supervised Administration Programme (PBSAP)

Lincolnshire CCG-commissioned services – there are four CCGs in Lincolnshire, none of which currently commission any services from community pharmacy.

Privately provided services – most pharmacy contractors and DACs will provide services by private arrangement between the pharmacy/DAC and the customer/patient.

Listed below are examples of services and may fall within the definition of an enhanced service. However, as the service has not been commissioned by the NHS and is funded and provided privately, it is not considered a pharmaceutical service in this PNA:

- Care home service, e.g. direct supply of medicines/appliances and support medicines management services to privately-run care homes
- Home delivery service, e.g. direct supply of medicines/appliances to the home
- Patient group direction service, e.g. hair loss therapy, travel clinics
- Screening service, e.g. skin cancer

Services will vary between provider and some are occasionally provided free of charge, e.g. home delivery.

1.4 Process for developing the PNA

As a direct result of the Health and Social Care Act 2012, a paper was presented by the PNA Steering Group to Lincolnshire HWB on 20th June and 25th September 2017.

The purpose of the paper was to inform Lincolnshire HWB of its statutory responsibilities under the Health and Social Care Act to produce and publicise a revised PNA at least every three years. The last PNA for Lincolnshire was published in March 2015, and it is therefore due to be reassessed by March 2018.

Lincolnshire HWB accepted the content of the paper at the meeting and the recommendation to delegate responsibility of the PNA to a steering group.

Public Health Lincolnshire has a duty to complete this document on behalf of Lincolnshire HWB. After a competitive tender process, Public Health Lincolnshire commissioned Soar Beyond Ltd to undertake the PNA.

Soar Beyond Ltd was chosen from a selection of potential candidates due to their significant experience of providing services to assist pharmaceutical commissioning, including the production and publication of PNAs.

Step 1: Steering Group

On 11th July 2017, Lincolnshire's PNA Steering Group was established. The terms of reference and membership of the group can be found in Appendix C.

Step 2: Project management

At this first meeting, Soar Beyond Ltd and the local authority presented and agreed the project plan and ongoing maintenance of the project plan. Appendix F shows an approved time line for the project.

Step 3a: Public questionnaire on pharmacy provision

A public questionnaire to establish views about pharmacy services was produced by the Steering Group which was circulated to:

- All pharmacy contractors in Lincolnshire to distribute to the public
- All GP practices in Lincolnshire to distribute to the public

- All public libraries in Lincolnshire to distribute to the public
- Lincolnshire Healthwatch who distributed to:
 - their database of over 1,500 individuals
 - shared on Twitter and Facebook
 - o providers' network meeting in each CCG area
 - o several social group meetings
 - staff and board members
- Lincolnshire People's Partnership who distributed to:
 - Lincolnshire Sensory Services
 - o Children's Links
 - o Links Lighthouse
 - o Shine
 - Carers FIRST
 - Lincolnshire Independent Living
 - Every-One
 - o Linkage
- Engagement Database distribution list (mix of groups and individuals who have signed up to be notified about all consultation and/or Adult Care and/or Public Health and Wellbeing)
- Lincolnshire Association of Local Councils (LALC) sent to all Town and Parish Councils in Lincolnshire
- LCC corporate news release
- LCC corporate Facebook account
- LCC corporate Twitter account
- LCC website

A total of 1,145 responses were received. A copy of the public questionnaire can be found in Appendix D and the detailed responses can be found in Appendix I.

Step 3b: Pharmacy contractor questionnaire

The Steering Group agreed a questionnaire to be distributed to the local community pharmacies to collate information for the PNA. The Local Pharmaceutical Committees (LPC) supported this questionnaire to gain responses.

A total of 96 responses (78%) were received. A copy of the pharmacy questionnaire can be found in Appendix E and the responses can be found in Appendix J.

Step 3c: Dispensing Practice Questionnaire

The Steering Group agreed a questionnaire to be distributed to all local GP Dispensing Practices in Lincolnshire to inform the PNA.

A total of 46 responses (72%) were received. A copy of the GP Dispensing Practice questionnaire can be found in Appendix F and the responses can be found in Appendix K.

Step 4: Preparing the draft PNA for consultation

The Steering Group reviewed and revised the content and detail of the existing PNA. The process considered the JSNA and other relevant strategies to ensure the priorities were identified correctly.

1.5 Localities for the purpose of the PNA

The PNA Steering Group, at its second meeting, considered how the localities within the Lincolnshire HWB geography would be defined.

The majority of health and social care data are available at local authority district level which provides reasonable statistical rigour. It was agreed that the districts would be used to define the localities of the Lincolnshire HWB geography. Where data was not available at district level, CCG data has been used.

The localities (which will be referred to as districts) used for the PNA for Lincolnshire are:

- Boston
- East Lindsey
- Lincoln City
- North Kesteven
- South Holland
- South Kesteven
- West Lindsey

A list of providers of pharmaceutical services in each district is found in Appendix A.

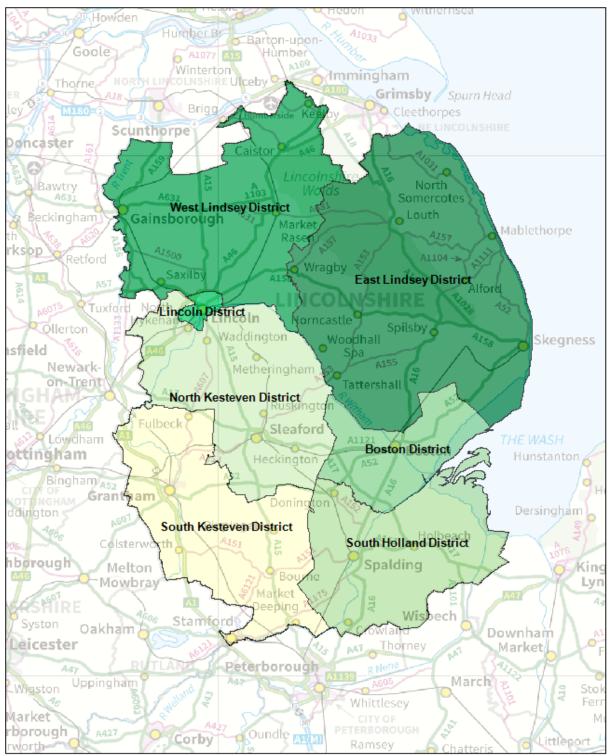
The information contained in Appendix A has been provided by NHS England (who are legally responsible for maintaining the pharmaceutical list of providers of pharmaceutical services in each HWB area), LCC and the four Lincolnshire CCGs.

Section 2: Context for the PNA

Lincolnshire is located in the East Midlands and is the fourth largest county in England. The county has a diverse geography comprising large rural and agricultural areas, urban areas and market towns, and a large eastern coastline. It is bordered by North East Lincolnshire, North Lincolnshire, Nottinghamshire, Leicestershire, Rutland, Northamptonshire, Peterborough, Cambridgeshire and Norfolk.

Within Lincolnshire, there are seven districts. These are Boston, East Lindsey, Lincoln, North Kesteven, South Holland, South Kesteven and West Lindsey (see Figure 1). For the purposes of the PNA, localities have been defined by the PNA Steering Group as the districts and will be referred to as such throughout the rest of the document.

Figure 1: Location of Lincolnshire Districts



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Table 1 indicates that five districts are classified as rural areas, one as urban with rural [elements] and one as urban with city and town. This is based on the share of the population that live in rural areas or rural related areas (i.e. hub towns), as classified by the Department for Environment, Food & Rural affairs. Hub towns are built-up areas with a population of 10,000 to 30,000 that meet specific criteria relating to dwelling and business densities, suggesting the potential to serve the wider rural hinterland.

Table 1: Rural-Urban classification of Lincolnshire districts

Districts	Rural-Urban classification 2011			
Boston	Urban with significant rural (rural including hub towns 26-49%)			
East Lindsey	Mainly rural (rural including hub towns >=80%)			
Lincoln City	Urban with city and town			
North Kesteven	Mainly rural (rural including hub towns >=80%)			
South Holland	Largely rural (rural including hub towns 50-79%)			
South Kesteven	Largely rural (rural including hub towns 50-79%)			
West Lindsey	Mainly rural (rural including hub towns >=80%)			

Source: Department for Environment, Food & Rural Affairs, 2011 Rural-Urban Classification for Local Authority Districts in England

Figure 2 illustrates that most of Lincolnshire is rural in nature as defined by the Lower Super Output Area (LSOA).

Winterton Immingham ne Spurn Head Cleethorpes Humberside Keelby Scunthprpe North 1103 A631 Somercotes A631 Louth Gainsborough am Market Mable¹ A157 Rasen A1500 A1104 tford Wragby Saxilby A57 Alford North Tuxford Lincoln vkehar Spilsby Waddington Woodhall A155 ark-Metheringham ent Tattershall Ruskington Fulbeck Sleaford THE V ham Boston A153 Hun Heckington am A52 **Grantham** Donington Der A607 Rippingale Holbeach Colsterworth **Spalding** Melton Bourne Mowbray Deeping Wisbech Stamford Oakham rowland Downh Thorney Mark Peterborough Ippingham 2011 Rural Urban Classification Rural village and dispersed in a sparse setting

Figure 2: Rural-Urban Classification 2011 by LSOA level for Lincolnshire

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Rural town and fringe in a sparse setting

Urban city and town in a sparse setting

Rural village and dispersed

Rural town and fringe

Urban city and town Urban minor conurbation Urban major conurbation

Clinical Commissioning Groups (CCGs)

CCGs are NHS organisations responsible for the planning, commissioning (buying) and monitoring of healthcare services locally. The Lincolnshire population is served by four CCGs as shown in Figure 3:

- Lincolnshire East CCG¹⁶, made up of 29 GP practices across Boston and East Lindsey
- Lincolnshire West CCG¹⁷, made up of 33 practices covering Lincoln and West Lindsey and parts of North Kesteven
- South Lincolnshire CCG¹⁸, made up of 15 practices across the southern parts of South Kesteven and South Holland
- South West Lincolnshire CCG¹⁹, made up of 19 GP practices in Grantham and surrounding area in South Kesteven and North Kesteven

¹⁶ Lincolnshire East CCG: https://lincolnshireeastccg.nhs.uk/

¹⁷ Lincolnshire West CCG: http://www.lincolnshirewestccg.nhs.uk/

¹⁸ South Lincolnshire CCG: https://southlincolnshireccg.nhs.uk/

¹⁹ South West Lincolnshire CCG: http://southwestlincolnshireccg.nhs.uk/about-us

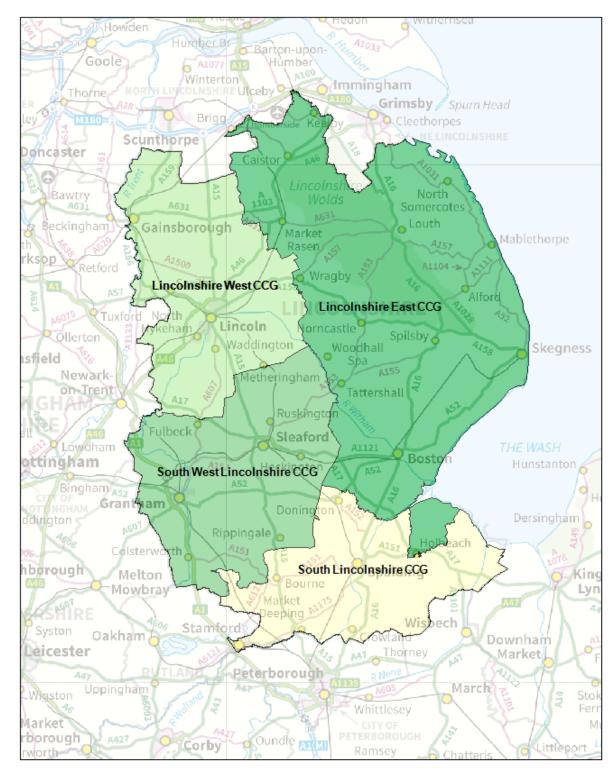


Figure 3: Map of Lincolnshire Clinical Commissioning Groups, 2017

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2.1 Population

Lincolnshire has an estimated population of 736,700 (based on ONS 2015 Mid-Year Population Estimates) with a 49.2% male and 50.8% female breakdown.

2.1.1 Population Projections

The population for Lincolnshire over ten years between 2006 and 2016 increased by 8.5% which is higher than the figure for both the East Midlands (8.2%) and England (8.4%). Based on 2015 figures, Lincolnshire's population is projected to see a 4.5% increase by 2021 as shown in Table 2, and a 10% increase by 2029.²⁰

The JSNA (2015) indicates that by 2039 the population growth of Lincolnshire will be 14% which is below the projected national growth rate of 17% however the population in Lincolnshire is projected to increase by approximately 103,000.

At district level, Boston is expected to have the greatest estimated population rise of 6.1%, followed by South Kesteven and South Holland. A lesser increase of under 3% is projected in Lincoln and East Lindsey. In comparison, the projected percentage increase of England population by 2021 based on 2014 mid-year population estimates is 5.4%.

Table 2: Projected percentage increase in Lincolnshire district population from 2015 to 2021, mid-year population estimate

Area	Mid-2015 population	% male	% female	Projected increase by 2021
Boston	66,902	49.2%	50.8%	6.1%
East Lindsey	137,887	48.9%	51.1%	2.4%
Lincoln	97,065	49.3%	50.7%	2.9%
North Kesteven	111,876	48.9%	51.1%	5.3%
South Holland	91,214	49.0%	51.0%	5.6%
South Kesteven	138,909	48.3%	51.7%	5.8%
West Lindsey	92,812	48.9%	51.1%	4.6%
Lincolnshire	736,665	48.9%	51.1%	4.5%

Source: ONS, 2015 Mid-Year Population Estimates; 2014-based Subnational Population Projections for Local Authorities and Higher Administrative Areas in England

2.1.2 Age structure

The 2015 population for Lincolnshire by broad age groups is illustrated in Table 3. The trend towards an ageing population profile will continue, with the proportion of people over 75 years of age projected to increase by 95% between 2014 and 2039.²¹

The increasing population will require significant planning for the delivery of services, to meet its varied health and social care needs.

²⁰ Lincolnshire Research Observatory – Population Trends 2015: http://www.research-lincs.org.uk/UI/Documents/population-trends-2015.pdf

 $^{^{21}}$ Lincolnshire Research Observatory – Population Trends 2015: $\underline{\text{http://www.research-lincs.org.uk/Ul/Documents/population-trends-2015.pdf}}$

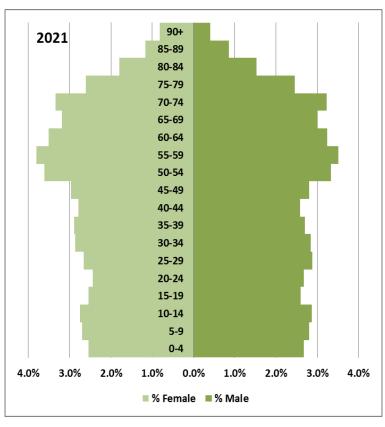
- 19.3% of the population is aged under 18 years
- 57.9% is aged 18-64 years and
- 24.4% of the population is aged over 65 years

Table 3: Age structure of Lincolnshire population, 2015 mid-year population estimate by district and for Lincolnshire

Locality	Aged <18 in 2015	Aged <18 by 2021	Aged 18- 64 in 2015	Aged 18- 64 by 2021	Aged 65+ in 2015	Aged 65+ by 2021
Boston	20.6%	21.0%	58.6%	57.3%	20.8%	21.7%
East Lindsey	17.4%	17.7%	53.7%	51.8%	28.9%	30.5%
Lincoln	18.7%	19.0%	66.4%	64.7%	14.9%	16.4%
North Kesteven	19.7%	19.8%	57.2%	55.6%	23.0%	24.5%
South Holland	19.7%	19.4%	56.8%	55.3%	24.0%	25.2%
South Kesteven	20.7%	20.4%	57.7%	55.8%	21.6%	23.8%
West Lindsey	20.7%	20.4%	57.7%	55.8%	21.6%	23.8%
Lincolnshire	19.3%	19.5%	57.9%	56.1%	22.8%	24.4%

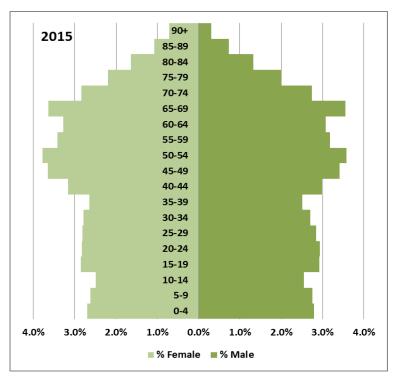
Source: Office for National Statistics, 2015 mid-year population projections and 2021 projections (based on 2014 mid-year population)

Figure 4: Age structure of Lincolnshire's population, 2021 by gender (2014-based projections)



Source: ONS, 2014-based population projections

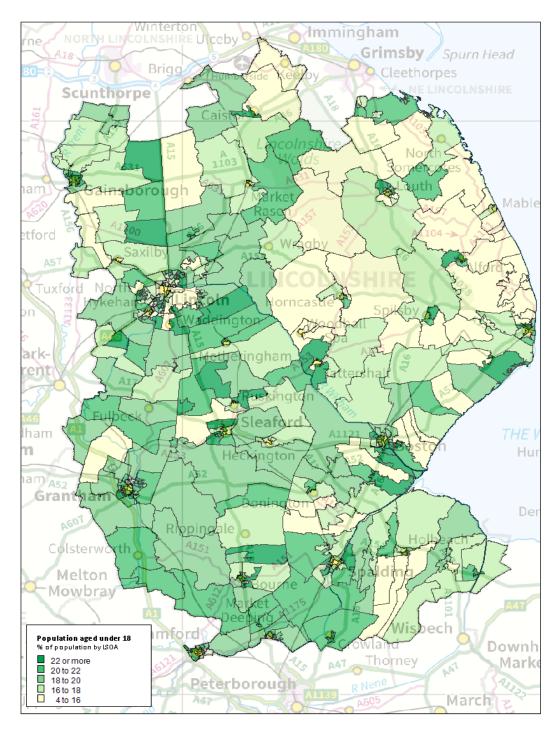
Figure 5: The age structure of Lincolnshire's population, 2015 mid-year population estimates by gender



Source: ONS, 2015 Mid-Year Population Estimates

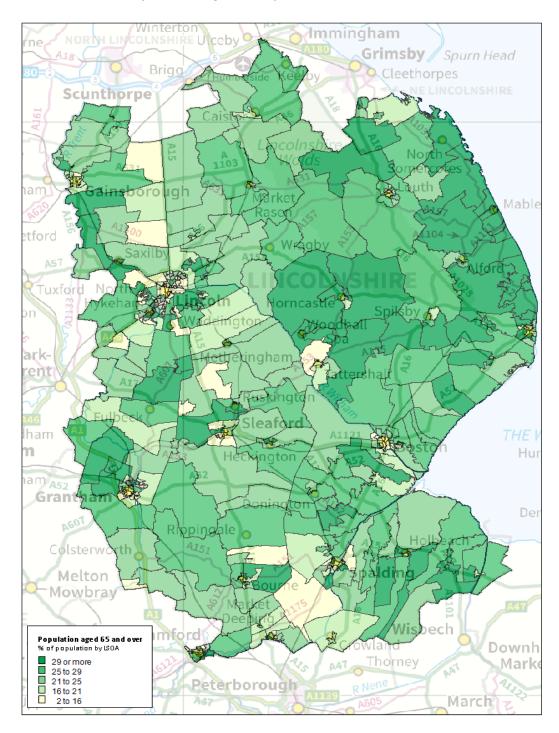
Figures 6 and 7 show the population under 18 years and over 65 years by super output area.

Figure 6: Lincolnshire's population aged <18 years, 2015



© Crown Copyright and database right 2017. Ordnance Survey 100025370 Source: ONS, 2015 Mid-Year Population Estimates

Figure 7: Lincolnshire Population aged ≥65 years, 2015



© Crown Copyright and database right 2017. Ordnance Survey 100025370 Source: Office for National Statistics, 2015 mid-year population estimates

2.1.3 GP-registered population

Table 4 shows the number of people registered with GP practices which are located within the district on April 2016. The CCG-registered population (745,500) of the county is slightly greater than the resident population (736,700) as it includes people living outside Lincolnshire who are registered with a GP practice in Lincolnshire.

Table 4: GP-registered population by district, April 2016

Locality	Total*
Boston	80,400
East Lindsey	145,900
Lincoln	94,400
North Kesteven	93,800
South Holland	89,800
South Kesteven	160,800
West Lindsey	80,400
Lincolnshire	745,500

Source: NHS Health and Social Care Information Centre, Lincolnshire Research Observatory available at http://www.research-lincs.org.uk/

2.1.4 Factors related to population growth

2.1.4.1 Natural growth – maternities

Table 5 shows the number of live births, crude birth rate and general fertility rate (GFR) for 2015. Boston had the highest GFR rate at 68.6 per 1,000 women aged 15-44, and Lincoln the lowest at 56.2 per 1,000 women aged 15-44 years. Further details are available at http://www.research-lincs.org.uk/jsna-Pregnancy-and-Maternal-Health.aspx.

Numbers rounded to nearest 100, hence Lincolnshire total will not equal total of district population

Table 5: Births and fertility rate, by district of usual residence of mother, 2015

District of usual residence	Number of live births	Crude birth rate*	GFR per 1,000 women aged 15-44 years**
Boston	816	12.2	68.6
East Lindsey	1,211	8.8	62.8
Lincoln	1,287	13.3	56.2
North Kesteven	1,124	10	61.3
South Holland	957	10.5	63.0
South Kesteven	1,477	10.6	63.1
West Lindsey	901	9.7	61.1
Lincolnshire	7,773	10.6	61.8
England	664,399	12.1	62.5

Source: Office for National Statistics Birth Summary Tables, England and Wales 2015 and Live Births by area of usual residence, England and Wales 2015

2.1.4.2 International migration

Table 6 gives a breakdown of the population by country of birth. Boston had the highest proportion of its population born outside the UK at about 15%, with 10.6% born in an EU accession country. This is higher than the other localities, with the proportion of their populations born in an EU accession country ranging between 1% to 4%.

^{*} Live births per 1,000 population (all persons and all ages), calculated using mid-2015 population estimates

^{**} GFR is the number of live births per 1,000 women aged 15-44, calculated using mid-2015 population estimates.

Table 6: Population by Country of Birth (% of population)

		Country of Birth							
District	United Kingdom	EU members (March 2001)	EU (accession countries Apr 2001 -Mar 2011)	Rest of Europe	Africa	Middle East and Asia	The Americas and the Caribbean	Antarctica and Oceania (including Australasia)	Other
Boston	84.9%	1.9%	10.6%	0.3%	0.6%	1.3%	0.4%	0.1%	0.0%
East Lindsey	96.3%	1.1%	0.9%	0.2%	0.4%	0.7%	0.3%	0.1%	0.0%
Lincoln	90.2%	2.3%	3.9%	0.3%	0.9%	1.8%	0.5%	0.1%	0.0%
North Kesteven	94.8%	1.8%	1.1%	0.2%	0.6%	0.8%	0.5%	0.2%	0.0%
South Holland	90.4%	1.6%	5.9%	0.2%	0.5%	0.8%	0.3%	0.1%	0.0%
South Kesteven	93.2%	1.9%	2.1%	0.2%	0.5%	0.8%	0.3%	0.1%	0.0%
West Lindsey	95.9%	1.5%	0.6%	0.1%	0.6%	0.9%	0.3%	0.1%	0.0%
Lincolnshire	92.9%	1.7%	3.0%	0.2%	0.6%	1.1%	0.4%	0.1%	0.0%
East Midlands	90.1%	1.6%	2.0%	0.3%	1.9%	3.4%	0.6%	0.1%	0.0%
England	86.2%	2.4%	2.0%	0.6%	2.4%	4.8%	1.3%	0.3%	0.0%

Source: ONS, 2011 Population Census

Notes: Other EU member countries in March 2001 – Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden; EU accession countries April 2001 to March 2011 – Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia

2.2 Ethnicity

Lincolnshire has a predominantly white population (97.6%), as shown in Table 7. Only 2.4% of the population is from a Black and Minority Ethnic (BME) group.

This is less than the national average. Lincoln is the most diverse district with the largest Asian and mixed-ethnic groups across the county.

Table 7: Lincolnshire localities ethnic group population, 2011

Area	White	Mixed/ multiple ethnic groups	Asian/ Asian British	Black/African/ Caribbean/black British	Other ethnic group
Boston	96.8%	1.0%	1.4%	0.4%	0.3%
East Lindsey	98.5%	0.7%	0.6%	0.2%	0.1%
Lincoln	95.6%	1.3%	1.9%	0.8%	0.4%
North Kesteven	98.2%	0.7%	0.7%	0.2%	0.1%
South Holland	97.8%	0.9%	0.8%	0.3%	0.1%
South Kesteven	97.5%	0.9%	1.2%	0.4%	0.1%
West Lindsey	98.2%	0.7%	0.8%	0.3%	0.1%
Lincolnshire	97.6%	0.9%	1.0%	0.4%	0.2%
East Midlands	89.3%	1.9%	6.5%	1.8%	0.6%
England & Wales	86.0%	2.2%	7.5%	3.3%	1.0%

Source: ONS, 2011 Population Census

Note: totals may not sum due to rounding and disclosure control at small geographies

2.3 Vulnerable populations

There are several vulnerable population groups in Lincolnshire which will have an impact on the need for pharmaceutical care.

- Adults in nursing and residential care
- People with sensory, physical and learning impairments
- Homeless populations
- Park homes; Gypsy and Traveller population
- Carers

2.3.1 Adults in nursing and residential care

Nursing and care homes play a large part in the provision of support for older people with often complex health and social needs. Patients in nursing homes often require 24-hour nursing input and are usually very elderly people. Majority of patients in nursing and residential care will have medical needs that require regular access to pharmaceutical services.

According to the JSNA, there are 279 care homes²² in Lincolnshire, 186 for older people and 93 for people aged 16-84 with disabilities. There are approximately 6,100 people aged over 65 and 1,100 people aged 18-64 in care homes, either self-funding, funded the local authority, 3,500 are funded by Lincolnshire Adult Care.

Information from the JSNA indicates that 585 per 100,000 younger adults (aged 18-64) and 15 per 100,000 older adults (aged 65+) are admitted to residential and nursing care homes in Lincolnshire, which is greater than the average for a group of similar authorities of 705 per 100,000 population and 17 per 100,000 population respectively.

2.3.2 People with sensory, physical and learning impairments

It is estimated that there are currently 60,000 adults aged 18-64 living in Lincolnshire with a long-term illness or physical disability; this represents 15% of the population. This is a vulnerable group of the population with often varied pharmaceutical needs depending on the complexities of their disability or illness. Pharmacy services play a large part in ensuring these patients have convenient access to medicines promptly and free delivery of prescription services can be of benefit to this patient population.

Projections based on The Health Survey of England in 2014 estimated that 10,000 people in the county aged 18-64 have a serious physical disability, with just over a third (3,400 people) needing assistance from someone else with personal care tasks.

The Lincolnshire JSNA on physical disabilities and sensory impairment can be found at http://www.research-lincs.org.uk/jsna-Physical-Disabilities.aspx.

2.3.3 Homeless populations

The homeless population is a vulnerable population with often complex health, social and mental health needs. Access to pharmacy services is key to supporting this population including availability of specialist services to address health and wellbeing concerns.

Lincolnshire has a low rate of statutorily homeless households in temporary accommodation per 1,000 households (0.4). This is similar to the regional figure and much lower than the national rate of 3.1 households per 1,000 (2015-16).

Family homelessness rate in Lincolnshire is 1.2 per 1,000 households (2015-16) and has remained relatively steady since 2011-12. The rate for England is 1.9 per 1,000 households.

Across Lincolnshire there are 13,563 individuals/households on council house waiting lists or in temporary accommodation waiting for suitable accommodation. The district areas with the largest waiting lists are Boston (2,268), Lincoln (2,798) and South Kesteven (2,914). In Lincolnshire, there are 334 families with children who were accepted as homeless and are in priority need for accommodation. Lincoln and South Kesteven localities have the highest numbers with 105 and 112 respectively. In addition, there are 532 households across the county who are accepted as being homeless and in priority need for accommodation. Again, the localities of Lincoln (169) and South Kesteven (171) have the highest numbers of households who are statutorily homeless and in priority need.

-

²² JSNA Residential and Nursing Care March 2016: http://www.research-lincs.org.uk/UI/Documents/JSNA Topic Residential Nursing Care v2.0 160316.pdf

An analysis of data (July 2015 to October 2016) collated by the countywide Street Outreach Team showed 156 (155 aged 21+) different individuals were seen sleeping rough six or more times.

Further details are available at http://www.research-lincs.org.uk/jsna-Housing.aspx.

2.3.4 Gypsy and Traveller population

Park homes or caravans are not considered as part of local development plan however, planning applications can be submitted for either permanent residential or holiday sites. Irrespective of the status of the sites there are specific issues in relation to meeting the health needs, including pharmaceutical needs, of temporary or permanent residents.

The gypsy and traveller population often present with varying health needs both for adults and children. Due to lifestyle and the nomadic nature of this population, healthy living and wellbeing may be disrupted, therefore when settled for a temporary period, access to pharmaceutical services is vital to support good health.

Table 8 provides numbers of caravans on the Travellers' caravan sites in Lincolnshire localities. South Holland has the greatest number while Boston and East Lindsey do not have any.

Table 8: Travellers' caravan count (number of caravans) as of July 2016 in Lincolnshire by district.

District	Total counts
Boston	0
East Lindsey	0
Lincoln	13
North Kesteven	40
South Holland	125
South Kesteven	70
West Lindsey	97
Lincolnshire	345

Source: Department for Communities and Local Government (DCLG), available at Lincolnshire Research Observatory

2.3.5 Park homes & Mobile Caravans

There are around 300 static caravan sites on the East Coast of Lincolnshire with around 28,000 caravans (the largest concentrated number of static caravans in Europe). ²³ This may be a conservative number as there also remains a "hidden population" of caravan dwellers due to the high density of caravans. ²⁴

²³ East Lindsey District Council: https://www.e-lindsey.gov.uk/article/5142/Caravan-Sites

²⁴ Centre for Regional Economic and Social Research: http://www.research-lincs.org.uk/UI/Documents/Caravans%20report%20-%20Final%20version%20280711.pdf

This section of the population will have varying health needs (age and lifestyle dependent) and therefore access to medical and pharmaceutical services is challenging to predict. Some caravans also often house 'holidaymakers' or seasonal workers for long periods of time and they will need to local amenities including access to community pharmacies for their health needs.

In addition, the Lincolnshire East Coast is a popular holiday destination²⁵ for all age groups hence access to community pharmacies is vital especially for the older population who a likely to be on polypharmacy for potentially multiple health conditions.

2.3.6 Carers

Lincolnshire has approximately 84,000 unpaid family carers (JSNA) aged from 5 to 100 years. There are 1,800 young carers aged under 15 years and a further 3,500 young carers aged 16-24 years. About 58% of carers are women. Table 9 highlights that the highest proportion of unpaid carers are in East Lindsey and West Lindsey.

Table 9: Percentage of the Lincolnshire population unpaid care, by hours per week

District	No unpaid care	1-19 hours of unpaid care	20-49 hours of unpaid care	50+ hours of unpaid care
Boston	89.7%	6.1%	1.4%	2.7%
East Lindsey	87.0%	7.0%	1.9%	4.1%
Lincoln	90.4%	5.7%	1.3%	2.6%
North Kesteven	88.7%	7.2%	1.4%	2.8%
South Holland	89.3%	6.4%	1.4%	2.9%
South Kesteven	89.7%	6.9%	1.2%	2.2%
West Lindsey	88.3%	7.7%	1.3%	2.8%
Lincolnshire	88.9%	6.8%	1.4%	2.9%
England	89.8%	6.5%	1.4%	2.4%

Source: ONS, 2011 Census

Further detail can be found at http://www.research-lincs.org.uk/jsna-Carers.aspx

2.4 Life expectancy

Life expectancy (LE) at birth in Lincolnshire residents was 79.6 years for males and 83.1 years for females (2013-2015), in comparison to East Midlands LE which was 79.3 years for males was 79.3 years and 82.9 years for females.

²⁵ Global Tourism Solutions: Lincolnshire STEAM trend report: https://www.greaterlincolnshirelep.co.uk/assets/documents/Lincolnshire STEAM Report 2009-2016 07-Aug-17.pdf

Figure 8 highlights that not all areas within Lincolnshire have similar levels of life expectancy. At district level, North Kesteven district has the highest male LE at birth (81.5 years) and Lincoln has the lowest (77.6 years), a gap of 3.9 years. Female LE is highest in North Kesteven (84.3 years) and lowest in Lincoln (81.9 years), a gap of 2.4 years.

Average life expectancy based on contemporary and seed on contemporary

Figure 8: Life Expectancy at birth (2013-2015) in Lincolnshire localities by gender

Source: ONS, Public Health England Public Health Profiles available at https://fingertips.phe.org.uk

2.5 Joint Strategic Needs Assessment

The Joint Strategic Needs Assessment (JSNA) ²⁶ for Lincolnshire reports on the health and wellbeing needs of the people of Lincolnshire. It brings together detailed information on local health and wellbeing needs and looks ahead at emerging challenges and projected future needs. A summary of the 6 themes are listed below and further details can be found at http://www.research-lincs.org.uk/Joint-Strategic-Needs-Assessment.aspx

- Children and young people
- Adult health and wellbeing
- Older people
- Healthy lifestyle
- Major diseases
- Wider determinants of health

2.6 Joint Health and Wellbeing Strategy

The Joint Health and Wellbeing Strategy (JHWS) aims to inform and influence decisions about the commissioning and delivery of health and social care services in Lincolnshire so

²⁶ Lincolnshire Research Observatory – JSNA 2015: http://www.research-lincs.org.uk/Joint-Strategic-Needs-Assessment.aspx.

that they are focused on the needs of the people who use them and can tackle the factors that affect residents' health and wellbeing as outlined in the JSNA.

Responsibility for producing the Joint Health and Wellbeing Strategy lies with the Lincolnshire HWB and it also oversees production of the JSNA.

Currently the JHWS is undergoing a review and the HWB are in the process of considering some key themes that have emerged during the public engagement workshops. A strategy will be drafted and available to view in early 2018.

Further detail can be found at https://www.lincolnshire.gov.uk/residents/public-health/behind-the-scenes/policies-and-publications/joint-health-and-wellbeing-strategy/115339.article

2.7 Sustainability Transformation Plans (STP)

In 2015, the Five Year Forward View (5YFV) introduced new models of care and requested all CCGs and local authorities to produce their Sustainability and Transformation Plan (STP). The STP shows how their local services will transform and become clinically and financially sustainable over the next five years.²⁷

The Lincolnshire STP footprint covers areas which fall within the responsibility of the four CCGs, the three local NHS Providers – United Lincolnshire Hospitals NHS Trust (ULHT), Lincolnshire Partnership NHS Foundation Trust (LPFT), Lincolnshire Community Health Services NHS Trust (LCHS) and Lincolnshire County Council (LCC).

The vision is to achieve really good health for the people of Lincolnshire by 2021 with support from an excellent and accessible health and care service with the money available.

The proposals set out in Lincolnshire's STP plan include:

- More investment in primary care and community services and more focus on prevention to keep people out of hospital
- A joined-up health and social care service at a neighbourhood level where teams work together to support people, carers and families, and care is coordinated
- Improving the effectiveness of services reducing things like cancelled operations, delays in discharging people from hospital, waiting times for appointments and referrals
- Possible options to centralise some services where it will deliver better outcomes for patient

Further details can be found at https://lincolnshirehealthandcare.org

2.8 Mortality and causes of III health

In Lincolnshire, the main causes of premature mortality (under 75 years) in Lincolnshire are cancer, cardiovascular disease and respiratory disease.²⁸

²⁷ Lincolnshire STP - https://lincolnshirehealthandcare.org

²⁸ JSNA: http://www.research-lincs.org.uk/jsna-Cancer.aspx

2.8.1 Cardiovascular disease

Cardiovascular disease (CVD) includes diseases of the heart, blood vessels, or both. Coronary Heart Disease (CHD) is the most common cardiovascular disease.

As shown in Table 10, rates of cardiovascular conditions in all Lincolnshire CCGs are higher than regionally or nationally, with Lincolnshire East CCG demonstrating the highest rate. More than a third of the population of Lincolnshire who are estimated to have a cardiovascular condition are a resident in Lincolnshire East.²⁹ The prevalence rates are not age standardised therefore it may not reflect a true comparison between localities and nationally.

Table 10: National, regional and local comparison of QOF prevalence rates (%) for cardiovascular conditions: 2013-14

Clinical register	England	Midlands and East of England	Lincolnshire	Lincolnshire East	Lincolnshire West	South Lincolnshire	South West Lincolnshire
Chronic kidney disease (18+)	4.00	4.21	5.75	6.37	5.01	6.26	5.44
Coronary heart disease	3.29	3.36	4.44	5.15	3.96	4.37	4.12
Stroke	1.72	1.75	2.18	2.59	1.92	2.05	2.03
Atrial fibrillation	1.57	1.63	2.01	2.27	1.75	1.99	1.98
Heart failure	0.71	0.75	0.92	1.03	0.76	1.01	0.88
Peripheral arterial disease	0.64	0.61	0.76	0.86	0.68	0.83	0.67

Source: HSCIC (QOF), ONS

2.8.2 Coronary Heart Disease (CHD)

In Lincolnshire, there were a total of 33,293 people on the CHD register in 2014-15. Figure 9 shows the recorded prevalence of CHD in Lincolnshire and the respective four CCGs. Lincolnshire East has a higher prevalence compared with Lincolnshire and the other three CCGs. The higher rates of people living with CHD in the east of the county could be attributed to an older population living with multiple long-term conditions and to higher levels of deprivation in pockets of this CCG.

²⁹ LCC. Cardiovascular Disease in Lincolnshire. May 2015. http://www.research-

lincs.org.uk/UI/Documents/cardiovascular-disease-in-lincolnshire.PDF

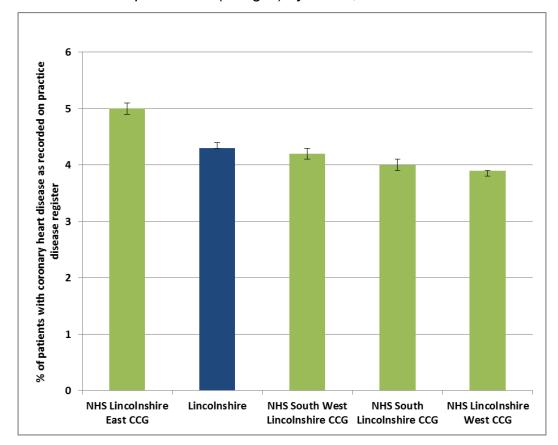
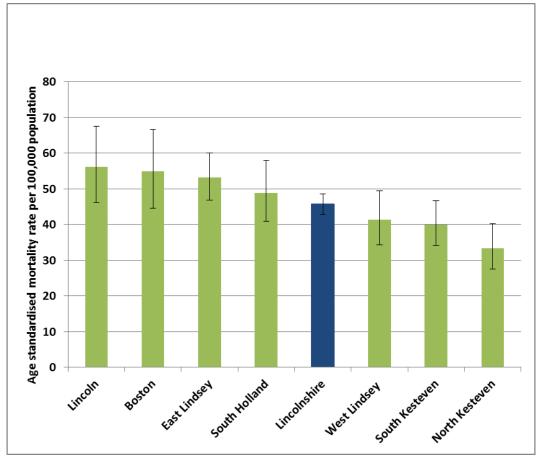


Figure 9: CHD recorded prevalence (all ages) by CCGs, 2015-16

Source: NHS Digital, Quality and Outcome Framework, accessed at Public Health England Fingertips (https://fingertips.phe.org.uk/search/coronary%20heart%20disease#page/6/gid/1/pat/46/par/E39000030/ati/19/are/E38000010/iid/273/age/1/sex/4)

Figure 10 shows the three-year average mortality rate (adjusted for age) from coronary heart disease in people aged under 75 years for districts. When compared with England (not shown in the figure), Lincolnshire and the four districts, Boston, East Lindsey, Lincoln and South Holland have significantly higher rates.

Figure 10: Age-standardised mortality rates per 100,000 from CHD (under 75 years) by district, Lincolnshire, 2013-2015



Source: Public Health Profiles, accessed at Public Health England Fingertips (https://fingertips.phe.org.uk/search/coronary%20heart%20disease#page/6/gid/1/pat/6/par/E12000004/ati/101/are/E060000015/iid/91166/age/163/sex/4)

Further details can be found at http://www.research-lincs.org.uk/jsna-CHD.aspx

2.8.3 Stroke

In Lincolnshire during 2012 - 2014, there were 286 deaths from a stroke in people aged under-75 years. In 2014/15 16,510 people were on a stroke/TIA general practice disease register. This accounts for 2.2% of the entire Lincolnshire population.

The percentage of the population, who have had a stroke or TIA, as recorded in general practice in 2014/15, is higher than the national average across all four of the Lincolnshire Clinical Commissioning Groups (CCGs) with the highest prevalence in Lincolnshire East (2.64%). The rate in England is 1.7%.

Hypertension was prevalent in 16.4% of the Lincolnshire population in 2014/15, which equates to 121,607 people. Lincolnshire East has the highest prevalence in hypertension with 17.8% and Lincolnshire West has the lowest prevalence with 14%.

Further details can be found at http://www.research-lincs.org.uk/jsna-Stroke.aspx.

2.8.4 Cancer

The prevalence rate for all cancers in Lincolnshire (2.9%) represents a statistically significant higher rate than the national cancer prevalence rate (2.3%). However, Lincolnshire West (2.7%) presents a statistically significant lower rate than the rest of Lincolnshire, and latest figures show that prevalence of cancer is highest in Lincolnshire East (3%); this reflects the demographic profile of an ageing population within Lincolnshire East CCG.

Figure 11 shows that new cases of all cancers were significantly higher in Lincolnshire East (701 per 100,000 population), South Lincolnshire (641 per 100,000) and South West Lincolnshire (610 per 100,000); in 2013-14 these CCGs had rates greater than the national average (515.3 per 100,000).

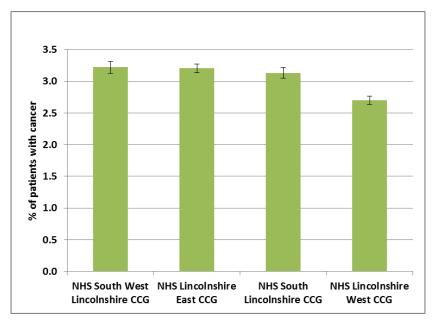
800 700 100 0 NHS **NHS South NHS South** NHS Lincolnshire Lincolnshire Lincolnshire West East CCG West CCG CCG Lincolnshire CCG

Figure 11: New cancer cases by CCG area, 2013-2014

Source: Public Health England Fingertips, New cancer cases, available at: https://fingertips.phe.org.uk

Figure 12 shows the recorded prevalence data for all cancers by CCG. Lincolnshire West (2.7%) has a lower prevalence than the rest of Lincolnshire. The data is not age adjusted.

Figure 12: Recorded prevalence of cancer, as recorded on practice disease registers (all ages) in 2015-2016

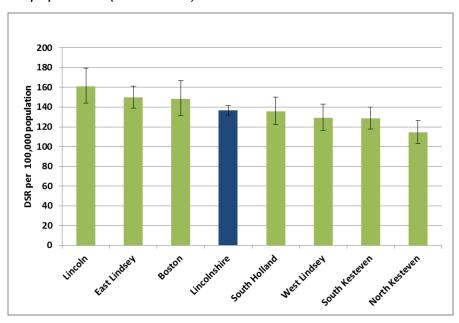


Source: Public Health England Fingertips, Cancer: QOF prevalence (all ages) available at: https://fingertips.phe.org.uk

Figure 13 shows that the under 75 mortality rate for cancer in Lincolnshire was 136.7 per 100,000 population (2013-2015).

This is similar to the England rate of 138.8 per 100,000 (not shown in the figure). Lincoln (161.0 per 100,000) and East Lindsey (149.8 per 100,000) have the highest rates of cancer mortality within the Lincolnshire districts, which according to the PHE data is significantly higher than the England average.

Figure 13: Age-standardised rate of mortality from all cancers in persons under-75 years of age per 100,000 population (2013-2015)



Source: Public Health England, Public Health Outcome Framework available at: http://www.phoutcomes.info

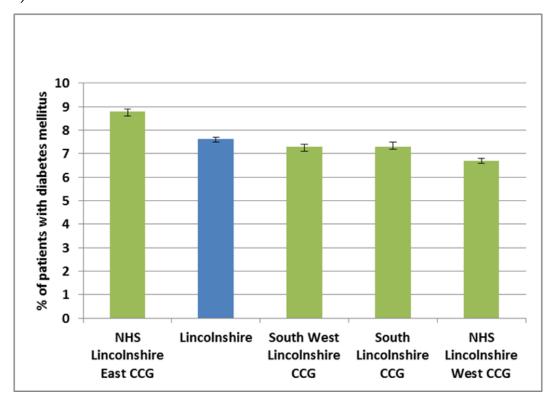
Further details can be found at http://www.research-lincs.org.uk/jsna-Cancer.aspx.

2.8.5 Diabetes

In 2014/15, 45,298 people were on the general practice diabetes register (7.5% of the Lincolnshire adult population) with some Lincolnshire general practices have nearly twice the Lincolnshire average of recorded diabetes. The highest prevalence of diabetes is in Lincolnshire East CCG.³⁰

Figure 14 shows the recorded prevalence of diabetes by Lincolnshire CCGs and the total for Lincolnshire (sum of all GP practices across the four CCGs) based on GP 2015-16 data.

Figure 14: Recorded diabetes prevalence in patients aged 17+ years for Lincolnshire CCGs (2015-16)



Source: NHS Digital, Quality and Outcome Framework, accessed at Public Health England Fingertips https://fingertips.phe.org.uk/profile/diabetes-ft

It is estimated that in Lincolnshire 12.4% (75,506) of the 16+ population have non-diabetic hyperglycaemia (pre-diabetes) and therefore at risk of developing Type 2 diabetes as well as other cardiovascular conditions.³¹ In England it is estimated that the overall prevalence is 11.4%.

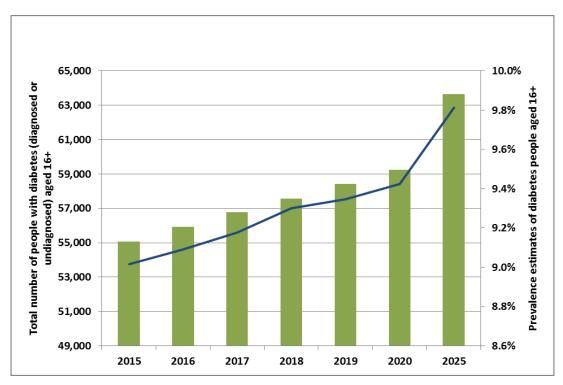
Figure 15 shows the projected prevalence and number of persons modelled on the age, gender, ethnicity and deprivation for Lincolnshire from 2015 to 2025. In 2015, the expected prevalence was 9%, rising to 9.8% in 2025.

³⁰ JSNA Diabetes: http://www.research-lincs.org.uk/jsna-Diabetes.aspx

³¹ Public Health England – Diabetes: https://fingertips.phe.org.uk/profile/diabetes-ft

The PHE diabetes prevalence and risk profile for 2015³² suggests that an estimated 12.4% (75,489 persons) of the 16+ population across all Lincolnshire CCGs is likely to have non-diabetic hyperglycaemia (pre-diabetes) and therefore at risk of developing type 2 diabetes as well as other cardiovascular conditions.

Figure 15: Estimated prevalence of diabetes (diagnosed and undiagnosed) in Lincolnshire, 2015



Source: Public Health England, National Cardiovascular Intelligence Network, Prevalence estimates of diabetes based on Health Survey for England 2012, 2013 and 2014 and 2014-based Subnational Population Projections, mid-2012 to mid-2037, Population Projections Unit, ONS.

Crown copyright 2014 as well as Hospital Episode Statistics (HES), 2012/13-2014/15,

Copyright © 2016, Re-used with the permission of NHS Digital (NHS Digital is the trading name of the Health and Social Care Information Centre. All rights reserved). https://www.gov.uk/government/publications/diabetes-prevalence-estimates-for-local-populations

Further details can be found at http://www.research-lincs.org.uk/jsna-Diabetes.aspx.

2.8.6 Chronic Obstructive Pulmonary Disease (COPD)

The national prevalence of COPD in Lincolnshire is 1.9% according to GP practice data 2015-16, a slight increase from 1.8 per cent in 2014-15. Lincolnshire data for 2015-16 at CCG level demonstrates a statistically significant higher prevalence of COPD in Lincolnshire East CCG (2.5%) compared to the other 3 CCGs in Lincolnshire which all have a prevalence of 2.0% each (Source: Public Health England (PHE)).

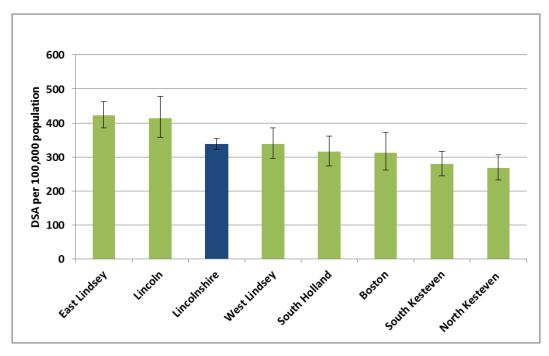
In Lincolnshire the age standardised rate for deaths from COPD is 50.3 per 100,000 which is similar to the East Midlands and national averages for 2013-15.

³² PHE diabetes profiles: https://fingertips.phe.org.uk/profile/diabetes-ft

PHE profiles for COPD indicate that the COPD recorded prevalence on QOF (all ages) for Lincolnshire East CCG (2.6%), Lincolnshire West CCG (2.0%) and South Lincolnshire (2.0%) were significantly higher compared with England (1.9%).³³

Figure 16 shows emergency admissions for COPD for 2015-16. The rate for Lincolnshire was 338 per 100,000 which was lower than the England average of 411 per 100,000. Lincolnshire localities had rates which were lower or similar to England rate. The England rate is not shown in the figure.

Figure 16: Emergency hospital admissions for COPD in adults aged 35+ years, Lincolnshire, 2015-16



Source: Hospital Episode Statistics (HES) accessed at Public Health England Fingertips (https://fingertips.phe.org.uk/search/lung%20conditions#page/6/gid/1/pat/6/par/E12000004/ati/102/are/E06000015/iid/92 302/age/202/sex/4)

Figure 17 shows the 2015-16 age-adjusted mortality rate from COPD for Lincolnshire and localities. The rate for Lincolnshire (50.3 per 100,000) was comparable with England (52.6 per 100,000). All the localities were comparable with or lower than the England rate.

³³ Public Health England. Inhale. December 2015. https://fingertips.phe.org.uk/profile/inhale/

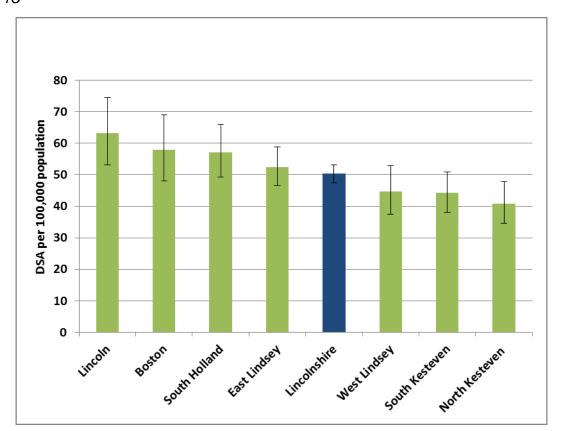


Figure 17: Mortality from Chronic Obstructive Pulmonary Disease, Lincolnshire localities, 2013-15

Source: Public Health Profiles, accessed at Public Health England Fingertips (https://fingertips.phe.org.uk/search/copd-page/6/gid/1/pat/6/par/E12000004/ati/102/are/E06000015/iid/1204/age/1/sex/4)

Further details can be found at http://www.research-lincs.org.uk/jsna-COPD.aspx.

2.8.7 Asthma

Table 11 provides asthma prevalence as recorded in GP Practices. According to the statistical significance (95% CI) presented in PHE Inhale atlas,³⁴ all the Lincolnshire CCGs have significantly higher rates compared with England. Further details can be found at https://fingertips.phe.org.uk/search/asthma#page/0/gid/1/pat/6/par/E12000004/ati/102/are/E07000032

 $^{^{34}}$ PHE Inhale Atlas https://fingertips.phe.org.uk/profile/inhale/data#page/3/gid/8000004/pat/46/par/E39000030/ati/153/are/E38000157/iid/285/age/1/sex/4

Table 11: Recorded prevalence of Asthma, 2015-16, CCG level

CCG code	CCG name	Asthma Register	Prevalence %
03T	Lincolnshire East CCG	16,369	6.7
04D	Lincolnshire West CCG	14,825	6.3
99D	South Lincolnshire CCG	10,624	6.5
04Q	South West Lincolnshire CCG	8,082	6.1
	Lincolnshire Total	49,900	6.4
	England	3,400,679	5.9

Source: NHS Digital, Quality and Outcomes Framework 2015-16, October 2016 available at: http://content.digital.nhs.uk/qof

2.8.8 Depression and mental health

In Lincolnshire, there were 2,010 inpatient admissions due to a mental health condition, representing 344.2 in every 100,000 adults aged 16 and over. Admission rates in 2014/15 were higher for men (372.6 per 100,000) than in women (317.7 per 100,000).³⁵ Self-reported levels of wellbeing and anxiety have improved since 2011-12 but 17% of people aged 16 and over in Lincolnshire suffer from a common mental disorder.

According to the Lincolnshire 2016 Healthwatch mental health survey 9.4 % of 5-16-year-olds, over 3,000 children aged 5-10 years and over 5,000 aged 11-16 years have poor mental health and 20.5% of young people have self-harmed.³⁶

In Lincolnshire 3% of premature deaths in people aged under 75-years are due to suicide and injury of unknown intent, making this the fifth most common cause of premature death in the county. It was most common in males aged 40-44 years. It must be noted that family and friends of people who may have taken their own life are at an increased risk of mental and emotional problems and may be at a higher risk of suicide themselves.

Further details can be found at https://fingertips.phe.org.uk/search/mental%20health

2.8.9 Dementia

In 2015, 11,289 people aged 65 and over were living with dementia in Lincolnshire, which accounts for 6.7% of the population aged 65 and over or 1.5% of the entire population.

When the national prevalence rates are applied to the number of population by age registered at each CCG, Lincolnshire East CCG has the highest estimated rates at 4,104 (1.68%), which reflects the older age profile of its population. South West Lincolnshire CCG has the lowest estimated rates at 1,907 (1.45%).

Further details can be found at http://www.research-lincs.org.uk/jsna-Dementia.aspx.

³⁵ Lincolnshire Research Observatory – Mental Health: http://www.research-lincs.org.uk/jsna-Mental-Health-Adults.aspx

³⁶ PHE National Child and Maternal Health Intelligence Network:

http://atlas.chimat.org.uk/IAS/profiles/profile?profileId=34&geoTypeId=4&geoIds=925

2.8.10 Accidental injuries and falls

In 2014-15, the age-standardised rate of injury due to falls in Lincolnshire among those aged 65 years and over was 1,892 per 100,000 population compared with 2,125 per 100,000 population in England. The rate for those aged 80+ years in Lincolnshire was 4,712 per 100,000 population compared with 5,351 per 100,000 in England in the same year.

In people aged 65 and over, falls accounted for 9% of all emergency admissions and was the cause of 12% of admissions in people aged 80 and over.

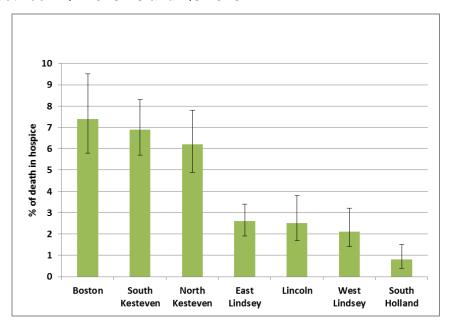
Analysis of hospital episode statistics between 2011-12 and 2014-15 shows that three quarters of falls occurred at the person's place of residence (home or residential institution) in Lincolnshire.

Further details can be found at http://www.research-lincs.org.uk/jsna-Falls.aspx.

2.8.11 Palliative care

Figure 18 shows the proportion of all deaths occurring in hospice by district over a year (from Quarter 4, 2015-16 to Quarter 3, 2016-17). Boston, South and North Kesteven have a higher proportion compared with the other four localities.

Figure 18: Deaths occurring in a hospice as a proportion of all registered deaths in Lincolnshire between Q4 2015-16 and Q3 2016-17



Source: National End of Life Care Intelligence Network, Place of death, available at: http://www.endoflifecare-intelligence.org.uk

2.9 Immunisation

Vaccination can offer protection from disease by helping build up our immunity to the natural infection. This means that we are also unlikely to infect anyone else. This then reduces the risk of unvaccinated people getting the infectious disease meaning that people who cannot be vaccinated will still benefit from the vaccination programme. This is called herd or population immunity.³⁷ When enough people are vaccinated it helps herd immunity and reduces the level of the circulating infection.

Across Lincolnshire in 2014-15:

- MMR uptake was 84.7%, below the rate in East Midlands (91.2%) and England (88.6%) and below the 95% threshold needed for herd immunity
- Lincolnshire East CCG has the lowest uptake (below the 95% threshold) of routine vaccinations for 12-month-old children, while South Lincolnshire CCG has the highest rate and exceeds the national average
- Uptake of the HPV Vaccination for girls aged 12-13 is 93.7%, the second highest in the East Midlands
- In 2014-15 the uptake of flu vaccination in Lincolnshire was 72.4%, slightly below the regional and national averages (73.5% and 72.7% respectively); this is comparable to other authorities in the East Midlands

Further details can be found at http://www.research-lincs.org.uk/jsna-Immunisation.aspx.

2.10 Healthy lifestyles, health and wellbeing

2.10.1 Substance misuse - drug misuse

Of all adults entering treatment in 2014-15, many used multiple substances with the most drug presentations being for heroin and crack at 53%, cannabis at 17.5% and amphetamine at 10%. Novel Psychoactive Substances (NPS) only accounted for 1.9% of all adult presentations.³⁸

Of young people under 18 years old entering treatment in 2014-15, many used multiple substances with the most presentations being for cannabis at 81%, followed by alcohol and NPS, with figures of 69% and 34% respectively.

As of the end of year 2014-15, waiting times for service users entering treatment in Lincolnshire is significantly shorter than the national average, with no more than 0.6% waiting longer than three weeks (nationally 3%).

2.10.2 Alcohol and related disease

Data from PHE local alcohol profiles for 2015-16³⁹ indicates that Lincolnshire had a lower alcohol-specific mortality rate (all ages) adjusted for age (6.6 per 100,000) compared with the England rate (11.5 per 1000,000). All the localities had lower rates.

³⁷ Department of Health. Immunisation against infectious disease, Green book.

³⁸ Lincolnshire 2015 Substance Misuse Health Needs Assessment

³⁹ PHE Local Alcohol Profiles https://fingertips.phe.org.uk/profile/local-alcohol-profiles

Alcohol specific hospital admissions for Lincolnshire in 2015-16 were also lower at 350 per 100,000 compared with 583 per 100,000 for England.

According to the PHE profiles there were around 603 people in treatment at specialist alcohol misuse services with a successful completion rate of 39.7%. Waiting times for accessing alcohol treatment in Lincolnshire are considerably better than the national average with only 0.1% waiting more than three weeks, compared with 4.1% seen nationally.

2.10.3 Sexual health and teenage pregnancy

Sexually transmitted infections (STIs) in Lincolnshire have risen to 1,245 cases of new infections per 100,000 population, compared to the England rate of 767.6 cases in 2015. Of these, 66% are in the 15-24 age group.

2.10.3.1 Chlamydia

The chlamydia diagnosis rate in Lincolnshire is 1,821 per 100,000 population of 15-24-yearolds, less than the national target. Local areas are expected to achieve a chlamydia detection rate of at least 2,300 per 100,000 population in this age group.⁴⁰

The number of young people screened across the county has increased considerably since the inception of the Lincolnshire Chlamydia Screening programme in 2008.

The following information is taken from data collated by Public Health England and covers the period January-December 2015.⁴¹

- In 2015, 21,350 screens were carried out in Lincolnshire, which equates to 24.8% of the target population of 15-24-year-olds
- This achieved a positivity rate of 7.4% and a detection rate of 1,821 per 100,000 15-24-year-olds
- The chlamydia detection rate in 15-24-year-olds in Lincolnshire was slightly lower (1,821 per 100,000 population) than the East Midlands (1,835 per 100,000) and the England average (1,887 per 100,000). Lincolnshire, East Midlands and England detection rates were all significantly lower than the benchmark goal
- Positivity rates (15-24 age group) within Lincolnshire are currently highest in Lincoln at 3,293 per 100,000 of the 15-24-year-old population. South Holland has the lowest detection rate of 911 per 100,000 people which is the second lowest in the East Midlands region
- The chlamydia diagnosis rate in over-25s is significantly lower in Lincolnshire (287 per 100,000 population) than the national rate of 361 per 100,000 people. Lincoln had a significantly higher rate of 783 per 100,000 people and has the highest rate in Lincolnshire, whereas South Holland has the lowest rate of 145 per 100,000 people

⁴⁰ Public Health England. Public Health Outcomes Framework (2013-16). https://www.gov.uk/government/publications/healthy-liveshealthy-people-improving-outcomes-and-supporting-transparency

⁴¹ Gov.uk. National chlamydia screening programme (NCSP): data tables. June 2017. https://www.gov.uk/government/statistics/national-chlamydia-screening-programme-ncsp-data-tables

2.10.3.2 HIV - prevention of transmission

There were 20 new diagnoses of HIV in 2015 in people aged 15 and over in Lincolnshire (3.2 per 100,000 population), with the highest number in South Kesteven with six new cases. South Kesteven and South Holland both had a HIV diagnosis rate of 5.2 people per 100,000 which is the highest in Lincolnshire; East Lindsey had the lowest diagnosis rate of 0.8 per 100,000. While the numbers may be small, there is a major impact on physical and mental health, social welfare and the rising costs of ARV (Antiretroviral Therapy).

The rate of testing in England is 67.3 per 100,000 population. Within Lincolnshire the highest performers are in South Kesteven, with 73.4 per 100,000 and South Holland at 69.5 per 100,000. The lowest rate is in East Lindsey with 57.7 per 100,000.

HIV testing uptake in Lincolnshire 2015 is at 71.8%; this is significantly lower than the national uptake of 76.2% and the lowest rate in the East Midlands.

Further details can be found at http://www.research-lincs.org.uk/jsna-Sexual-Health.aspx.

2.10.3.3 Teenage conceptions

The rate of under-18 conceptions in Lincolnshire in 2014 was 22.4 per 1,000. This was slightly lower than the national rate of 22.8 per 1,000, but higher than the East Midlands average of 21.6 per 1,000.

Rates of under-18 conceptions have halved in all localities of the county since 1998, with the greatest decrease seen in Lincoln district. However, rates of under-18 conceptions in Lincoln remain the highest in the county in 2014, at 36 per 1,000. Boston had the second highest rates, at 33.7 per 1,000. The lowest under-18 conception rates in the county were seen in North Kesteven: this district, along with West Lindsey and South Holland, had a rate below the national average in 2014.

Under-18 birth rates in Lincolnshire are again following a downward trend, falling to 8.93 per 1,000 in 2014. Although Lincoln district has historically had the highest rate of births to under-18s, in 2014, the rate decreased sharply by almost half to 11.76 per 1,000. West Lindsey had the highest rate of births to under-18s in 2014, at 12.7 per 1,000.

Further details can be found at http://www.research-lincs.org.uk/jsna-Teenage-Pregnancy.aspx.

2.10.4 Smoking

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The smoking prevalence in Lincolnshire (17.7%) is significantly higher than in England 15.5% (2016). As seen in Table 12, figures from the PHE Tobacco control profiles⁴² indicate that smoking rates for Boston (24.9%) were significantly higher compared with the national rate of 15.5% for 18+ years adults in 2016.

⁴² PHE Tobacco Control profiles https://fingertips.phe.org.uk/profile/tobacco-control/data#page

The same profiles suggest that the successful quit rate for Lincolnshire smoking cessation services was 2,507 per 100,000 smokers aged 18+ years in 2015-16 which was similar to the England rate. However, the CO2-validated quit rate was lower (1,406 per 100,000) compared with England (1,845 per 100,000)

Table 12: Smoking prevalence, current smokers* persons aged 18+ Lincolnshire, 2016

Area	Smoking prevalence	Routine and manual occupation smoking prevalence
Boston	24.9%	29.8%
East Lindsey	18.4%	25.4%
Lincoln	21.0%	30.7 %
North Kesteven	11.1%	22.4%
South Holland	19.0%	21.1%
South Kesteven	16.0%	27.7%
West Lindsey	18.0%	34.4%
Lincolnshire	17.7%	27.2%

^{*}Annual population survey

Source: PHE local tobacco profiles https://fingertips.phe.org.uk/profile/tobacco-control/data#page/

Smoking during pregnancy continues to remain an issue in Lincolnshire. Data collected in 2013-14 by ULHT⁴³ suggests that the smoking prevalence in pregnancy at booking is 18%, equating to approximately 1,300 women reducing to 15% 1,080 at delivery. Smoking in pregnancy in Lincolnshire mothers is significantly higher than the England average of 11.4% and East Midlands average of 13.7%. However, data collection issues have meant that the reporting of Smoking At Time Of Delivery (SATOD, the national indicator) for Lincolnshire has been estimated for the past two years and may be unreliable as it may not reflect the true picture.

Further details can be found at http://www.research-lincs.org.uk/jsna-Smoking-Adults.aspx.

2.10.5 Obesity

In 2015-16, in Lincolnshire, 21.5% of 4-5-year-olds and 34.7% of 10-11-year-olds are reported to be overweight or obese.⁴⁴ Children in Lincolnshire have similar levels of obesity to the England average at 4-5 years and 10-11 years.

⁴³ Lincolnshire JSNA. Smoking Reduction in Adults through Tobacco Control Supplementary Data Document.

⁴⁴ PHE. PHOF - https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/

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When rates are compared across localities within the county, marked variation is seen. For example, in East Lindsey 24.6% of 4-5 year olds were overweight or obese compared with 16.6% in West Lindsey. In South Holland 41.9% of 10-11-year-olds were classified as overweight or obese, compared with 31.3% in North Kesteven.

The Public Health Outcomes indicator for adult obesity (2013-2015) reports that 69.9% of adults in the county have excess weight, which is higher than the average prevalence reported at a national and regional level.

All the localities in Lincolnshire except Lincoln had significantly higher rates than England. The rates ranged from 73.8% in Boston to 66.1% in Lincoln.

According to the Lincolnshire JSNA on obesity:45

- The NHS Health Check Programme locally screens nearly 25,000 adults (40-74 years) a year. The screening found that 64.5% of patients had excess weight and 26.2% are obese
- In 2014-15 there were nearly 6,000 hospital admissions related to adult obesity (directly or indirectly). 61 hospital admissions had a direct relation to obesity and 90 adults underwent bariatric surgery outside the county. The costs to the NHS locally for such surgery exceed £480,000 per annum
- Applying the national rates of morbid obesity to Lincolnshire suggests that there may be 11,500 adults with a BMI over 40 and nearly 800 with a BMI over 50. Over 3,200 adults may be eligible and may wish to take up bariatric surgery

Further details can be found at http://www.research-lincs.org.uk/jsna-Obesity.aspx.

2.10.6 Oral health

Table 13 compares indicators for tooth decay in Lincolnshire with East Midlands and England. Lincolnshire county has levels of tooth decay in children that are lower than the average for England.⁴⁶

⁴⁵ LRO. JSNA obesity - http://www.research-lincs.org.uk/jsna-Obesity.aspx

⁴⁶ PHE. Lincolnshire Dental Profile. July 2017.

Table 13: Decayed, missing or filled teeth (DMFT), Lincolnshire (2014-15)

	Lincolnshire	East Midlands	England
Average d3mft	0.7	0.9	0.8
% without decay experience	76.5%	72.5%	75.2%
% with decay experience	23.5%	27.5%	24.7%
Average d3mft in those with decay experience	3.0	3.3	3.4
% with active decay	20.9%	24.3%	21.5%
% with experience of extraction 2	1.0%	1.9%	2.5%
% with dental abscess	1.3%	1.5%	1.4%
% with teeth decayed into pulp	4.2%	4.0%	3.6%
% with decay affecting incisors 3	3.9%	5.6%	5.6%
% with high levels of plaque present on upper front teeth 4	1.0%	2.3%	1.7%

Source: 2015 National Dental Epidemiology Programme survey of five-year old children

- 1. Generated by the Children's Services statistical neighbour benchmarking tool, within the East Midlands the comparator is 'Very Close' and comparator 1 is 'Extremely Close'3.
- 2. Experience of extraction of one or more teeth on one or more occasions. The majority of children attending hospital for extractions have general anaesthetics for these procedures.
- 3. Decay involving one or more surfaces of upper anterior teeth. This pattern of decay is often linked with long-term use of a feeding bottle with sugar-containing drinks.
- 4. Indicative of a non-brusher.

The full results of the 2015 National Dental Epidemiology Programme survey of five-year-old children are available at: www.nwph.net/dentalhealth.

2.11 Housing Growth

Lincolnshire is an area of growth both in economic and housing terms, with the housing stock likely to increase considerably in the next 20 years. Three areas in the county (Lincoln, Gainsborough and Grantham) have been awarded Growth Point status – with each area receiving up to £8 million as part of a national strategy for sustainable development.

Similarly, the emerging local development plans in the county point towards high levels of housing allocation with 71,116 homes overall to be built in Lincolnshire by 2036 at an average annual rate of 3,500 per annum. Most of these developments are not expected to be completed, or even started, in the next three years (within the life of this PNA document), but these areas will be reviewed regularly.

Planned large housing developments in the Growth Point areas and some other main towns (such as Boston, Sleaford and Spalding) may result in the PNA for those areas needing to be reassessed. Table 14 summarises housing development plans for local localities in Lincolnshire.

Table 14: Number of additional housing planned and built in Lincolnshire by area 2016-2021

		Planned		Built since start of plan period	Outstanding from 2016
	Period	Total	Annual	Total	Total
Central Lincolnshire (Lincoln, North Kesteven and West Lindsey)	2012- 2036	Lincoln strategy area - 23,654 Gainsborough strategy area - 4,435 Sleaford strategy area - 4,435 Elsewhere - 4,435 Total - 36,960	1,540	3,510	33,450
South East Lincolnshire (Boston and South Holland)	2011- 2036	Boston - 7,550 South Holland - 11,125 Total - 18,675	Boston - 300 South Holland - 445 Total - 745	1,780	16,895
East Lindsey	2016- 2031	Coast - 1,308 (already with permission) Inland - 6460 Total- 7,786		Nil (since 2011 1,640)	7,786
East Lindsey	2016- 2021 2021- 2025 2025- 2031			591 481 482	
South Kesteven	2011- 2036	Total - 15,625	625	2,640	12,985

Housing provision data source: Central Lincolnshire Local Plan 2012-2036 (adopted April 2017)

South East Lincolnshire Local Plan 2011-2036 (submitted June 2017).

East Lindsey Core Strategy 2016-2031 (submitted 2017, hearing date July 2017)

South Kesteven Local Plan (consultation draft July 2017)

Extra care housing

Extra care homes are purpose-built to meet the current and future personal care needs of older people and people with disabilities. In Lincolnshire, these tend to be self-contained flats. There are no known specific schemes in the pipeline at the time of adopting this PNA.

Factors to consider in relation to needs for pharmaceutical services:

An increase in population size is likely to generate an increased need for pharmaceutical services, but, on a local level, changes in population size may not necessarily be directly proportionate to changes in the number of pharmaceutical service providers required to meet local pharmaceutical needs, due to the range of other factors influencing such needs.

In conclusion, over the coming years, the population in Lincolnshire is expected to both age and grow substantially in numbers. Several large-scale housing developments are in progress. The Lincolnshire HWB will monitor the development of major housing sites and produce supplementary statements to the PNA if deemed necessary.

Section 3: NHS pharmaceutical services provision, currently commissioned

3.1 Community pharmacies

There are 122 community pharmacies and 1 DAC in Lincolnshire (as of 1st August 2017) serving a population of 736,665 (mid-2015, ONS) which equates to an average of 16.7 pharmacies per 100,000 population.

Data for 2015-16 shows the England average of community pharmacies is 21.5 per 100,000 population, which has decreased slightly from 2015 when the average number was 21.7. The Midlands and East region average of community pharmacies is 21 per 100,000.⁴⁷

Table 15 provides a breakdown, by district, of the average number of community pharmacies per 100,000 population. The number and rate of community pharmacies vary widely by district. Due to the mainly rural area of Lincolnshire, some populations may find community pharmacies in neighbouring HWB areas more accessible and/or more convenient.

Table 15: A breakdown of average community pharmacies per 100,000 population

Area	Number of community pharmacies (as of 01/08/2017)	Total population (mid-year 2015 estimates)	Average number of community pharmacies per 100,000 population (as of 01/08/2017)
Boston	10	66,902	14.9
East Lindsey	26	137,887	18.9
Lincoln	22	97,065	22.7
North Kesteven	18	111,876	16.1
South Holland	13	92,812	14.0
South Kesteven	20	138,909	14.4
West Lindsey	14	93,730	14.9
Lincolnshire	123	736,665	16.7
Midlands & East	3,446	-	20.9*
England	11,688	-	21.5*

^{*}Data includes distance-selling (internet) pharmacies, which do not provide face-to-face services

Figure 19 shows the location of community pharmacies in Lincolnshire (Also included as Map A). Section 1.3 lists the essential services of the pharmacy contract, and it is assumed that provision of these services is available from all contractors. Further analysis of the pharmaceutical service provision and health needs for each district is explored in Section 6.

⁴⁷ National Statistics General Pharmaceutical Services - 2006/7 to 2015/16 https://www.gov.uk/government/statistics/general-pharmaceutical-services-20067-to-201516

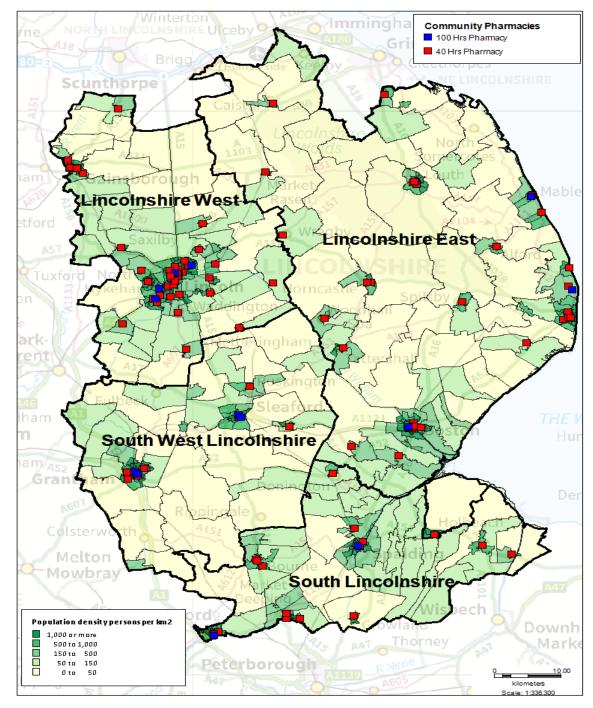


Figure 19: Location of community pharmacies and distribution in Lincolnshire

A full list of community pharmacies in Lincolnshire and their opening hours can be found in Appendix A.

3.1.1 Choice of community pharmacies

The table below shows the breakdown of community pharmacy ownership in Lincolnshire. The data shows that independent pharmacy ownership is much lower than seen in the rest of England and the Midlands and East region. Although Lincolnshire has a much higher percentage of multiple pharmacies compared with nationally, the population still has a good choice of pharmacy providers available in all districts. Pharmaceutical services are also provided by the 66 dispensing practices in Lincolnshire for eligible patients.

Table 16: Community pharmacy ownership, 2015-16

Area	Multiples (%)	Independent (%)
England	61.9	38.1
Lincolnshire	78.7	21.3
Midlands & East	60.8	39.2

3.1.2 Weekend and evening provision

It is estimated that, collectively, community pharmacies in England⁴⁸ are open approximately 150,000 hours per week more than ten years ago. This has been mainly driven through the opening of '100-hour' pharmacies. There are 1,161 (9.9%) community pharmacies in England open for 100 hours or more per week. This has increased significantly from 2013-14, when there were 773 (6.7%). The public questionnaire results illustrate that 5% of respondents access pharmacy services in the early evening (6-8pm) and only 1% access pharmacy services late evening (after 8pm). With regards to weekend access, 5% of respondents visit the pharmacy on Saturday and only 1% visit the pharmacy on Sunday.

Table 17 shows that Lincolnshire has a slightly higher percentage of its pharmacies open for 100 hours or more compared with regionally and nationally. Most 100-hour pharmacies are open late and at the weekends.

Table 17: Numbers of 100-hour pharmacies (and percentage of total in each district)

Area	Number (%) of 100-hour pharmacies
England (2015-16 data)	1,161 (9.9%)
Midlands & East	353 (10.2%)
Lincolnshire	13 (10.6%)
Boston	1 (11%)
East Lindsey	2 (7.8%)
Lincoln	3 (13.6%)
North Kesteven	3 (16.6%)
South Holland	1 (7.8%)
South Kesteven	3 (15.0%)
West Lindsey	0 (0%)

⁴⁸ Dispensing Health: Pharmacy Voice. 'Who do you think we are? Community Pharmacy: dispensers of health.' 2014. http://www.dispensinghealth.org/wp-content/uploads/2014/01/DH-Launch-FINA1.pdf

3.2 Dispensing Appliance Contractors (DACs)

There is one Dispensing Appliance Contractor (DAC) in Lincolnshire, however DAC services are also available to the population from elsewhere in the UK, and appliances may also be dispensed from community pharmacies. There were 112 DACs in England in 2015-16. As part of the essential services of appliance contractors, a free delivery service is available to the whole population. It is therefore likely that patients may obtain appliances delivered from DACs outside Lincolnshire.

The community pharmacy contractor questionnaire received 96 responses and 85% of respondents reported that they provide stoma and/or incontinence appliances.

3.3 Distance-selling pharmacies

A distance-selling pharmacy provides services as per the Pharmaceutical Regulations, 2013. It must not provide essential services face-to-face and therefore provision is by mail order and/or wholly internet. As part of the terms of service for distance-selling pharmacies, provision of all services offered must be offered throughout England.

It is therefore likely that the population within Lincolnshire may be receiving pharmaceutical services from a distance-selling pharmacy outside Lincolnshire. There are currently three distance-selling pharmacies in Lincolnshire details of which can be found in Appendix A.

Figures in 2015-16 show that in England there were 266 distance-selling pharmacies, accounting for 2.3% of the total number of pharmacies, and in the Midlands and East region there were 85 distance-selling pharmacies, accounting for 2.5%, which has remained steady since 2014-15.

The public questionnaire identifies that only 8% of respondents have used a distance-selling pharmacy (internet pharmacy).

3.4 Access to community pharmacies

Most community pharmacy providers in the Lincolnshire are sited in areas co-located with shops, GP practices or other routine destinations; many also provide extended opening hours. As such they attract a high level of convenience.

Figure 20 shows the location of community pharmacies in Lincolnshire and car journey travel time accessible to the population of Lincolnshire (Also included as Map B).

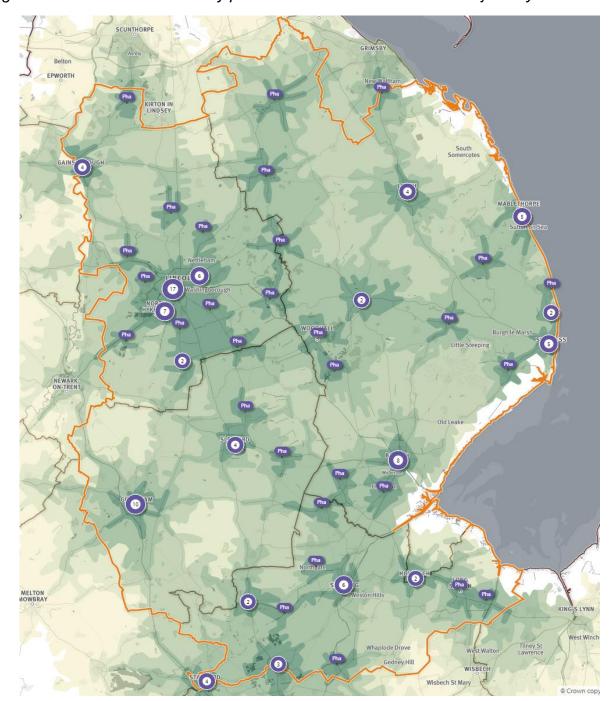


Figure 20: Location of community pharmacies in Lincolnshire and car journey travel time

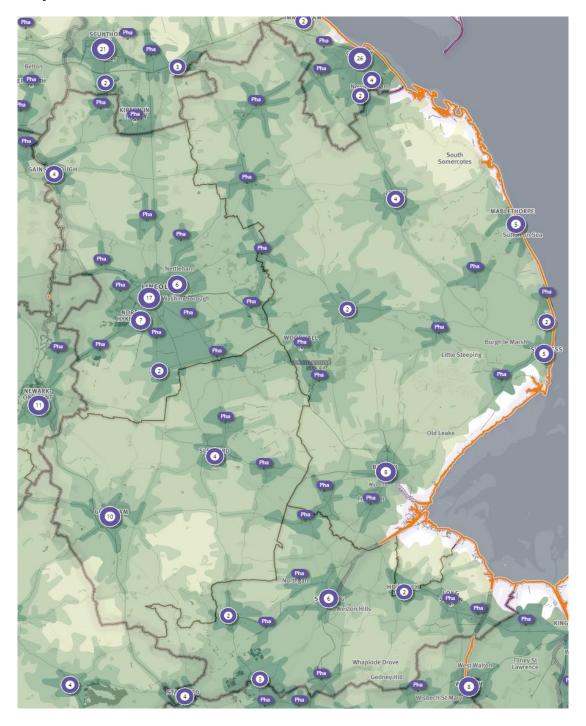
3.4.1 Access to community pharmacies outside Lincolnshire

Due to the diverse geography and large rural nature of Lincolnshire, it is assumed that a large proportion of the population may drive or use public transport to access several amenities including pharmaceutical services.

As Lincolnshire is bordered by nine other HWB areas, the population is not limited to accessing services just within Lincolnshire and will have access to pharmaceutical service providers in these neighbouring HWB areas.

Figure 21 illustrates pharmacies located outside Lincolnshire which may be more accessible by car to the population living close to the border (Also included as Map C).

Figure 21: Location of community pharmacies in Lincolnshire and surrounding areas and car journey travel time



3.4.2 Routine daytime access to community pharmacies

Due to the rural nature of Lincolnshire, it may not be practical for residents to walk to their community pharmacy unless they live within the town centres. Therefore, it would be accurate to assume that a large proportion of residents will drive to their local community pharmacy, which may be in a neighbouring HWB area. In response to the public questionnaire, 61% of the respondents stated they travel by car to the pharmacy.

The White Paper, 'Pharmacy in England: Building on strengths – delivering the future'⁴⁹ noted that 99% of the population – even those living in the most deprived areas – can get to a community pharmacy within 20 minutes by car and 96% by walking or using public transport. However, there are differences between rural and urban areas and Lincolnshire is recognised as a large rural county therefore access to community pharmacies within 20 minutes by car may be unrealistic.

A previously published article⁵⁰ suggests that over 89% of the population of England has a maximum 20-minute walk to a community pharmacy, but this figure falls to as low as 14% in rural areas.

A full list of community pharmacies in Lincolnshire and their opening hours can be found in Appendix A.

3.4.3 Routine weekday evening access to community pharmacies

The number of community pharmacy providers open beyond 6pm, Monday to Friday (excluding bank holidays), varies within each district and are listed in the table below. The location and opening hours can be found in Appendix A. 'Average' access is difficult given the variety of opening hours and locations and is therefore considered at district level. A further detailed analysis of provision in each district is detailed in Section 6.

Table 18: Number of community pharmacy providers open Monday to Friday (excluding bank holidays) beyond 6pm (and percentage of total in each district)

Area	Number (%) of community pharmacies open Monday to Friday beyond 6pm
Lincolnshire	46 (37%)
Boston	5 (56%)
East Lindsey	9 (35%)
Lincoln City	10 (45%)
North Kesteven	5 (28%)
South Holland	5 (38%)
South Kesteven	6 (30%)
West Lindsey	6 (40%)

⁴⁹ Department of Health White Paper. Pharmacy in England: Building on strengths – delivering the future. April 2008. http://www.official-documents.gov.uk/document/cm73/7341/7341.pdf

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⁵⁰ Todd A, Copeland A, Husband A. The positive pharmacy care law: an area-level analysis of the relationship between community pharmacy distribution, urbanity and social deprivation in England. BMJ Open 2014, Vol. 4, Issue 8. http://bmjopen.bmj.com/content/4/8/e005764.full.pdf%20html

3.4.4 Routine Saturday daytime access to community pharmacies

The number of community pharmacy providers open on Saturdays vary within each district are listed in the table below. The location and opening hours can be found in Appendix A. Of the pharmacies in Lincolnshire, 83% are open on Saturdays, a vast proportion of which are open into the late afternoon. 'Average' access is difficult given the variety of opening hours and locations and is therefore considered at district level. A further analysis of provision is detailed in Section 6.

Table 19: Number of community pharmacy providers open Saturdays (and percentage of total in each district)

Area	Number (%) of community pharmacies open Saturdays		
Lincolnshire	102 (83%)		
Boston	7 (78%)		
East Lindsey	20 (77%)		
Lincoln City	18 (82%)		
North Kesteven	16 (89%)		
South Holland	12 (92%)		
South Kesteven	19 (95%)		
West Lindsey	10 (67%)		

3.4.5 Routine Sunday daytime access to community pharmacies

The number, location and opening hours of community pharmacy providers open on Sundays vary within each district. Fewer pharmacies are open on Sundays than any other day in Lincolnshire. West Lindsey District only has one contractor open on Sundays.

Table 20: Number of community pharmacy providers open Sundays (and percentage of total in each district)

Area	Number (%) of community pharmacies open Sundays
Lincolnshire	24 (20%)
Boston	2 (22%)
East Lindsey	5 (19%)
Lincoln City	7 (32%)
North Kesteven	3 (17%)
South Holland	2 (15%)
South Kesteven	4 (20%)
West Lindsey	1 (7%)

3.4.6 Routine bank holiday access to community pharmacies

Community pharmacies are not obliged to open on nominated bank holidays. While many opt to close, several pharmacies (often those in regional shopping centres, retail parks, supermarkets and major high streets) opt to open – often for limited hours.

The number, location and opening hours of community pharmacy providers open on bank holidays vary within each district and for different bank holidays. Annually, NHS England requests feedback from community pharmacies on their bank holiday intentions. For most bank holidays, several providers have planned to open and NHS England has deemed provision as satisfactory and not commissioned any further provision. NHS England may often need to commission a bank holiday rota service from a small number of pharmacies, particularly in some areas, for Easter Sunday and Christmas Day.

3.5 Advanced service provision from community pharmacies

Section 1.3 lists all advanced services which may be provided under the pharmacy contract. As these services are discretionary, not all providers will provide them all the time. Data supplied from NHS England has been used to demonstrate provision of MURs, NMSs and flu vaccination. Table 21 lists a summary of the latest available data (2015-16) on provision of advanced services.

The data relating to immunisation relates to the 2015-16 season and only details information for those contractors who provided the service within that period.

Table 21: Advanced service provision

Advanced Service	Percentage providing	of provide	rs currently
Advanced Service	England	Midlands & East	Lincolnshire
Medicines use reviews (MURs)	94.4%	94.5%	88.6%
New medicine service (NMS)	80.8%	79.9%	82.1%
Flu vaccination	61.6%	61.0%	69.9%
NUMSAS*	-	-	-
Appliance use review (AUR)**	1.2%	1.1%	0.0%
Stoma appliance customisation (SAC)**	14.7%	14.1%	8.1%

^{*}NUMSAS: No list of providers of NHS Urgent Medicines Supply Advanced Service is available publicly

The percentage of providers of the MUR service is slightly lower than the regional and national average, whereas the NMS services in Lincolnshire is slightly higher than the regional and national levels. Appendix A lists those community pharmacies who provide these services.

^{**}AUR and SAC data includes provision from Dispensing Appliance Contractors

Draft PNA

Of respondents to the community pharmacy contractor questionnaire, all indicated that they had a consultation room which complies with the requirements to perform NMS/MUR services. Respondents indicated that hand-washing facilities are located either within or close to the consultation area in 93% of their premises and 100% identify that the consultation room is in a closed area.

Provision of the SAC service is low compared with national provision, but similar to that reported regionally, with eleven (8.1%) contractors providing this service.

There has been no recorded provision of the AUR service from community pharmacy providers in Lincolnshire up to 1st August 2017. The number of providers of the AUR is also very low regionally and nationally. There were only 140 community pharmacy or DAC providers nationally (1.2%) and 39 community pharmacy or DAC providers (1.1%) in the Midlands & East region.

3.6 Enhanced service provision

NHS England commissions extended opening hours for pharmacies in Louth as an enhanced service. Currently four pharmacies in Louth are commissioned as part of this service.

Under the pharmacy contract, enhanced services are those directly commissioned by NHS England (Section 1.3). Therefore, any locally commissioned services commissioned by CCGs or the local authority are not considered here. They are outside the scope of the PNA but are considered in Section 4.

Table 22: Extended-hours pharmacies in Louth commissioned by NHS England

Pharmacy Name	Pharmacy Address		
Your Local Boots Pharmacy	96-98 East Gate, Louth, LN11 9AA		
Louth Pharmacy	155 Newmarket, Louth, LN11 9EH		
Boots the Chemists Ltd	26 Mercer Row, Louth, LN11 9JQ		
Lincoln Co-op Chemists Ltd	52 Eastgate, Louth, LN11 9PG		

Section 4: Other services which may impact on pharmaceutical services provision

Community pharmacies and GP practices provide a range of other services. These are not considered 'pharmaceutical services' under the Pharmaceutical Regulations 2013 and may be either free of charge, privately funded or commissioned by the local authority or CCG.

Examples of such services include delivery services, allergy testing, care home services and sexual health services, although this is not an exhaustive list.

It is important to note that these services are out of the scope of the PNA and are not included in the analysis for identifying gaps in the provision of pharmaceutical services in Lincolnshire.

4.1 Local authority-commissioned services provided by community pharmacies in Lincolnshire

Lincolnshire HWB commissions the following services from community pharmacies either directly or via a subcontracted service agreement.

- Smoking cessation services
- Sexual health services
- Emergency Hormonal Contraception (EHC) services
- Pregnancy testing
- Pharmacy-Based Supervised Administration Programme (PBSAP)

A full list of services and community pharmacy providers can be found in Appendix A.

4.2 Clinical Commissioning Group-commissioned services

None of the four CCGs in the Lincolnshire currently commission any services from community pharmacies.

4.3 Other services provided from community pharmacies

As part of the community pharmacy contractor questionnaire, found in Appendix E, respondents were asked to indicate which of a range of other services, including disease-specific, vaccination and screening services, they currently provide, would be willing to provide or would not be willing to provide. Most pharmacies indicated that they either currently provide these services or would be willing to provide if commissioned.

A summary of the community pharmacy contractor questionnaire responses is detailed in Appendix J.

4.4 Collection and delivery services

All pharmacies who responded offer collection of prescriptions from GP practices. Of those who responded, 96% of pharmacies offer a free delivery service of dispensed medicines on request, while 4% provide a chargeable service.

Dispensing practices also offer a free delivery of dispensed medicines on request of the patient as a value-added service.

Depending on the area in question and the ability of residents to pay for a delivery service, this could impact on individuals' ability to receive a delivery service and impact on their access to medications. However, it should be noted that all internet and distance-selling pharmacies are obliged to provide a free prescription delivery service.

4.5 Domiciliary services

There are currently no accurate figures available for the number of Lincolnshire residents that are considered housebound, hence it is unclear if this translates into a need for prescription delivery services and if current provision fulfils this need.

Contractors providing MURs may provide them at patients' homes, upon agreement with NHS England. No data has been gathered on numbers of domiciliary MURs provided in Lincolnshire.

4.6 Language services

Of the pharmacies who responded to the community pharmacy contractor questionnaire, 19 reported that they offer at least one additional language in addition to English. The most common spoken additional languages were Polish (6%) and Chinese (3%).

4.7 Services for less-abled people

As a requirement of the Equality Act 2010,⁵¹ community pharmacies are required to make 'reasonable adjustments' to their services to ensure they are accessible by all groups, including less-abled persons. From the community pharmacy contractor questionnaire, 81% indicated they have wide door access, 72% have ramped access and 23% have an electric door. The questionnaire identifies that 84% have a consultation room which is accessible to wheelchair users.

4.8 Electronic Prescription Service (EPS)

Many GP practices are now able to transmit prescriptions electronically to a pharmaceutical service provider (community pharmacy or dispensing appliance contractor).

This system is known as EPS Release 2 and means that the patient no longer needs to obtain a paper prescription and present it at their pharmacy for dispensing.

Electronic prescriptions are sent directly to the pharmacy nominated by the patient. GP practices that provide this service can only transmit electronic prescriptions to a pharmacy who has a dispensing system enabled to receive electronic ('Release 2') prescriptions. All (100%) respondents to the community pharmacy contractor questionnaire reported that they have a system which is compliant to receive electronic prescriptions. Data available on which pharmacies in England are enabled to offer the EPS is available from NHS Choices.⁵²

⁵¹ The Equality Act 2010 - http://www.legislation.gov.uk/ukpga/2010/15/contents

⁵² NHS Choices - http://www.nhs.uk/NHSEngland/AboutNHSservices/pharmacists/Pages/eps.aspx

4.9 GP practices providing extended hours

There are 56 (58%) GP practices in Lincolnshire that provide extended hours. Identifying these allows the HWB to determine if there is a need for additional pharmaceutical services to ensure adequate service provision for those who might access these services. Most practices are dispensing practices and the remaining are all within a reasonable distance from a community pharmacy.

Patients living in rural areas that reside more than one mile (1.6km)⁵³ from a pharmacy's premises (but excluding any distance-selling chemist premises) who also have serious difficulty in obtaining any necessary drugs or appliances from pharmacy premises because of distance are eligible to have their prescriptions dispensed at a dispensing GP practice.

It is unclear at this time whether the dispensing GP practices have their pharmacies open during extended hours and further analysis would be required to ascertain whether this is perceived as a gap in pharmaceutical services.

Patients not eligible to have their prescriptions dispensed at the dispensing GP practice would need to use the services of a community pharmacy. Appendix B provides details of the GP practices in each district that provide extended hours and the corresponding community pharmacies that are open during this period

Outside of these hours Lincolnshire Community Health Services NHS Trust offers an outof-hours medical care service during evenings, weekends and bank holidays. These services are accessed via the NHS 111 service. Pharmacy provision during these hours varies by district and can be accessed from Appendix A.

 $\underline{https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212872/Chapter-15-dispensing-doctors-services.pdf}$

⁵³ Dispensing doctors service provision – Regulations under the Health Act 2009: Market entry by means of Pharmaceutical Needs Assessments.

Section 5: Findings from the public questionnaire

A public questionnaire about pharmacy provision was developed (Appendix D) and compiled by Lincolnshire PNA Steering Group. This was circulated by the local authority to a range of stakeholders listed below:

- All pharmacy contractors in Lincolnshire to distribute to the public
- All GP practices in Lincolnshire to distribute to the public
- All public libraries in Lincolnshire to distribute to the public
- Lincolnshire Healthwatch who distributed to:
 - o their database of over 1,500 individuals
 - shared on Twitter and Facebook
 - o providers' network meeting in each CCG area
 - several social group meetings
 - staff and board members
- Lincolnshire People's Partnership who distributed to:
 - Lincolnshire Sensory Services
 - o Children's Links
 - Links Lighthouse
 - o Shine
 - Carers FIRST
 - Lincolnshire Independent Living
 - Every-One
 - Linkage
- Engagement Database distribution list (mix of groups and individuals who have signed up to be notified about all consultation and/or Adult Care and/or Public Health and Wellbeing)
- Lincolnshire Association of Local Councils (LALC) sent to all Town and Parish Councils in Lincolnshire
- LCC corporate news release
- LCC corporate Facebook account
- LCC corporate Twitter account
- LCC website

From the 1,145 responses received from the public questionnaire:

- 85% have a regular or preferred pharmacy that they visit
- 62% use a car/taxi to their community pharmacy which is the most frequent means
 of travel to their chosen pharmacy
- 79% report having a journey time of no more than 15 minutes
- 91% had no difficulties travelling to their pharmacy
- 47% respondents indicated that Monday to Friday are the most convenient days to visit the pharmacy
- 6% of respondents indicated that the most convenient day to visit the pharmacy is **Saturday or Sunday**.

A full copy of the results can be found in Appendix I.

Table 23 provides the demographic analysis of respondents to the public questionnaire.

Table 23: Demographic analysis of the community pharmacy user questionnaire respondents

Male					Female				
32%					68%				
Age (%)									
16-24	25-34	35-54	55-64	65-74	75-84	85 and over	Prefer not to state		
3.8%	6.5%	24.2%	24.2%	27.8%	12.4%	2.1%	0.9%		
Illness or disability (%)									
Yes No				Prefer not to say					
26.5% 69.1%				4.4%					
Ethnic origin (%)					Questionnaire		2011 census		
Asian/Asian British – Bangladeshi					0.00%		0.1%		
Asian/Asian British – Chinese					0.09%		0.2%		
Asian/Asian British – Indian					0.28%		0.3%		
Asian/Asian British – Pakistani					0.00%		0.1%		
Asian/Asian British – other (please state)					0.00%		0.3%		
Black/African/Caribbean/black British – African					0.09%		0.2%		
Black/African/Caribbean/black British - Caribbean					0.09%		0.1%		
Black/African/Caribbean/black British - other					0.00%		0.1%		
Other ethnic group – Arab					0.00%		0.1%		
Other ethnic group – Eastern European					0.19%		0.1%		
Other ethnic group – other					0.00%		0.1%		
White - English/Welsh/Scottish/N Irish /British					94.31%		93.0%		
White - Irish					0.76%		0.5%		
White Gypsy or Irish Traveller				0.28%		0.1%			
White – other					0.38%		4.0%		
Mixed/multiple – white and black Caribbean					0.28%		0.3%		
Mixed/multiple – white and black African					0.09%		0.1%		
Mixed/multiple – white and Asian					0.00%		0.3%		
Mixed/Multiple – other					0.00%		0.2%		
Prefer not to state					2.37%		N/A		
Where	Where 'other' is answered, please specify:					0.85% N/A			

Section 6: Analysis of health needs and pharmaceutical service provision

6.1 Pharmaceutical services and health needs

The Joint Health and Wellbeing Strategy for Lincolnshire 2013-2018 (currently under review) is based on the five priorities identified in the Joint Strategic Needs Assessment:

- Promoting healthier lifestyles
- Improving the health and wellbeing of older people in Lincolnshire
- Delivering high quality systematic care for major causes of ill health and disability
- Improving health and social outcomes and reducing inequalities for children
- Tackling the social determinants of health

The Lincolnshire Sustainability and Transformation Plan vision is to achieve really good health for the people of Lincolnshire by 2021 with support from an excellent and accessible health and care service with the money available.

These priorities can be supported by the provision of appropriate pharmaceutical services within Lincolnshire. Medicines adherence and review is vital for the successful management of many long-term conditions, e.g. circulatory diseases, mental health and diabetes, therefore having a positive impact on morbidity and mortality. Disease-specific guidance, e.g. from the National Institute for Health and Care Excellence (NICE), regularly emphasises the importance of medicine optimisation and adherence in control of conditions such as hypertension, asthma and stroke.

6.2 Essential Services (ES)

The Essential Services (ES) of the community pharmacy contract must be provided by all contractors:

- ES 1: Dispensing of medicines
- ES 2: Repeat dispensing
- ES 3: Disposal of unwanted medicines
- ES 4: Promotion of healthy lifestyles
- ES 5: Signposting patients to other healthcare providers
- ES 6: Support for self-care
- ES 7: Clinical governance

ES1 and ES2 support patients living with long-term conditions by providing timely supply of medicines and advice to patients. ES2 may be of particular benefit to patients on lifelong medicines as part of their treatment, e.g. statins or insulin.

Using ES3, pharmacies can direct patients in the safe disposal of medicines and reduce the risk of hoarding medicines at home, which may increase the risk of error in taking medicines or the taking of out-of-date medicines.

ES4 can support local and national campaigns informing people of managing risk factors associated with many long-term conditions, such as smoking (a key priority of the Lincolnshire Joint Health and Wellbeing Strategy 2013-2018⁵⁴) healthy diet, physical activity and alcohol consumption.

ES4 provides the ability to:

- Improve awareness of the signs and symptoms of conditions such as stroke, e.g. FAST campaign
- Promote validated information resources for patients and carers
- Collect data from the local population on their awareness and understanding of different types of disease and their associated risk factors
- Target 'at-risk' groups within the local population to promote understanding and access to screening programmes, e.g. men in their 40s for NHS Health Checks

Using ES5, pharmacies can signpost patients and carers to local and national sources of information and reinforce those sources already promoted. Appropriate signposting has a significant role in supporting the numerous outcomes highlighted as priorities in the Lincolnshire Joint Health and Wellbeing Strategy.

Through ES6, pharmacy staff can advise patients and carers on the most appropriate choices for self-care and also direct queries to the pharmacist for further advice when purchasing over-the-counter medicines or general sales lists products. Some over-the-counter medicines are contraindicated, e.g. decongestant use in circulatory disease, and inappropriate use could increase the risk of an unplanned hospital admission. Equally, some symptoms can be much more significant in certain long-term conditions, e.g. foot conditions in diabetes, and the attempted purchase of an over-the-counter medicine by a patient or carer could alert a pharmacist and lead to an appropriate referral.

Community pharmacy also plays a vital role in the management of minor ailments and self-care. Community pharmacists are potentially the most-accessed healthcare professionals in any health economy and are an important resource in supporting people in managing their own self-care and in directing people to the most appropriate points of care for their symptoms. Although the evidence base is currently very small in measuring the effectiveness and value of community pharmacies' contribution to urgent care, emergency care and unplanned care, there is a growing recognition of the importance of this role and the need for further research.

ES7 provides the governance structure for the delivery of pharmacy services. This structure is set out within the Pharmaceutical Regulations 2013 and includes:

- A patient and public involvement programme
- A clinical audit programme
- A risk management programme
- A clinical effectiveness programme

⁵⁴ Lincolnshire Joint Health and Wellbeing Strategy 2013-2018: https://www.lincolnshire.gov.uk/residents/public-health-and-wellbeing-strategy/115339.article

- A staffing and staff programme
- An information governance programme

It provides an opportunity to audit pharmacy services and to influence the evidence base for the best practice and contribution of pharmacy services, especially to meeting local health priorities within Lincolnshire.

6.3 Advanced services

Advanced services are not mandatory for providers. In many cases, there are restrictions within the provision and/or availability of these services. For example, in the case of MURs, a pharmacy providing these services must have a consultation room which fits the service requirements, the pharmacist must complete approved MUR training and inform the NHS commissioning body on their intention to provide the service and the patient must have obtained dispensing services from the pharmacy for the previous three months (except for the Prescription Intervention Service).

Although the HWB has determined advanced services as necessary services, for the purpose of the PNA, the HWB does not consider that a lack of provision or access to an advanced service from a particular pharmacy translates automatically into a gap ion service. Lincolnshire HWB would wish to support all existing pharmaceutical service providers to make available all advanced services where a need exists.

Evidence shows that up to half of medicines may not be taken as prescribed or simply not taken at all. Advanced services have a role in highlighting issues with medicines or appliance adherence and in reducing waste through inappropriate or unnecessary use of medicines or appliances. Polypharmacy is highly prevalent in long-term conditions management. Advanced services provide an opportunity to identify issues with side effects, changes in dosage, confirmation that the patient understands the role of the medicine or appliance in their care and opportunities for medicine optimisation. Appropriate referrals can be made to GPs or other care settings resulting in patients receiving a better outcome from their medicines and, in some cases, cost saving for the CCG. Advanced services may also identify other issues such as regarding general mental health and wellbeing, providing an opportunity to signpost to other local services or services within the pharmacy e.g. repeat dispensing.

The inclusion of flu vaccination as one of the advanced services contributes to improved access and opportunity for the public to receive their seasonal vaccine, giving patients another choice of venue for their vaccination and helping commissioners to meet their local NHS vaccination targets. Information from the PSNC website,⁵⁵ indicates that a total of 950,765 vaccinations were administered for the 2016-17 influenza season.

⁵⁵ Pharmaceutical Services Negotiating Committee. [Accessed 1st June 2017] http://psnc.org.uk/services-commissioning/advanced-services/flu-vaccination-service/flu-vaccination-data-for-201617/

Vaccination is a key intervention to protect at-risk groups, such as older people, people living with diabetes, COPD or CVD, or carers, against diseases such as seasonal flu or shingles. These can cause additional health complications that can be associated with unplanned hospital admissions.

Promotion of self-care is an important aspect to the management of many long-term conditions and advanced services provide a key opportunity for the pharmacist help support patients in reaching their goals.

6.4 Enhanced services

NHS England commissions extended opening hours for pharmacies in Louth as an enhanced service. Currently four pharmacies in Louth are commissioned as part of this service. Details can be found in Section 3.6, Table 22.

6.5 Locally Commissioned Services (LCS)

Appendix A provides a summary of Locally Commissioned Services (LCS) within Lincolnshire pharmacies and Sections 4.1 and 4.2 provides a description of those services. It is important to note the commissioning status of each service as this defines whether it is an LCS.

LCSs are included within this assessment where they affect the need for pharmaceutical services or where the further provision of these services would secure improvements or better access to pharmaceutical services.

It is important to note that these services are out of the scope of the PNA and are not included in the analysis for identifying gaps in the provision of pharmaceutical services in Lincolnshire.

6.5.1 Stop smoking services

Smoking is the UK's single greatest cause of preventable illness and early death. Adults who smoke lose on average 13 to 14 years of their lives and more than 86,000 people in the UK die from smoking each year. It is a key priority health issue highlighted in the Lincolnshire JSNA and in the Joint Health and Wellbeing Strategy.

Smoking remains an area of health inequality in the county and there are geographical differences across the county as discussed in Section 2.10.4. The prevalence in Lincolnshire at 17.7% varies within different localities, with Boston district at 24.9% followed closely by East Lindsey district at 18.4%. On average the smoking prevalence in the localities is slightly higher than England 15.5% (2016). In the previous PNA, the smoking prevalence for Lincolnshire in 2012 was quoted as 20.9%.

Smoking cessation services are provided by a specialist provider Quit 51, which is subcontracted to community pharmacy and GP practices, who provide stop smoking support and a full range of pharmacotherapy. Thirty-eight community pharmacies in the Lincolnshire provide stop smoking services across all seven localities. The Stop Smoking Service reports a 53%-63% average rate of smokers quitting at four weeks.

Stop smoking services are referred to as an enhanced service within the 2013 Directions. In theory, they may be commissioned by NHS England as a pharmaceutical enhanced service, but currently they are not in Lincolnshire. If NHS England chooses to commission this service from pharmacies in Lincolnshire in the future, the capacity, quit rates and accessibility of all providers of stop smoking services within Lincolnshire should be considered when establishing service need and the commissioning intentions for pharmacies.

6.5.2 Emergency Hormonal Contraception (EHC)

There is a very strong evidence base for the use of EHC in reducing unplanned or unwanted pregnancies, especially within teenage years. Its use forms part of an overall national strategy to reduce the rate of teenage pregnancy within England as recommended by NICE.

The rate of under-18 conceptions in Lincolnshire in 2014 was 22.4 per 1,000. This was higher than the East Midlands average of 21.6 per 1,000 and slightly lower than the national rate of 22.8 per 1,000.

In Lincolnshire, 81 community pharmacies (65%) are commissioned to provide EHC and pregnancy testing which is provided as a free service to females. The community pharmacies are spread across all seven localities.

In theory, EHC services may be commissioned by NHS England as a pharmaceutical enhanced service but currently they are commissioned by LCC. If NHS England chooses to commission this service from pharmacies in the future, this should be based upon a defined need within the population. When establishing the service need and the commissioning intentions for pharmacies, NHS England should also consider the capacity, activity and accessibility of all providers who have the potential to supply levonorgestrel under PGD, on a prescription or as an over-the-counter medication in Lincolnshire

6.5.3 Chlamydia screening

The number of young people screened across the county has increased considerably since the inception of the Lincolnshire Chlamydia Screening programme in 2008. The chlamydia diagnosis rate in Lincolnshire is 1,821 per 100,000 population of 15-24-year-olds, less than the national target.

No sexual services are commissioned by LCC with community pharmacies, however, the Lincolnshire Integrated Sexual Health Service (LISH) has 69 community pharmacies (56%) signed up to undertake chlamydia screening. The LISH is funded by the Public Health Grant.

Screening services are referred to as an enhanced service within the 2013 Directions. In theory, they may be commissioned by NHS England as a pharmaceutical enhanced service but currently they are commissioned by LCC. If NHS England chooses to commission this service from pharmacies in the future, this should be based upon a defined need within the population. When establishing the service need and the commissioning intentions for pharmacies, it should also consider the capacity, activity and accessibility of all providers of chlamydia screening services in Lincolnshire

6.5.4 Substance misuse treatment and recovery services – Pharmacy-Based Supervised Administration Programme (PBSAP)

Community pharmacies have been utilised for a number of years by drug and alcohol service providers in the provision of supervised consumption services and needle exchange services.

Supervised consumption involves the client consuming methadone or buprenorphine under the direct supervision of a pharmacist in a community pharmacy. It is a medicines adherence service which aims to:

- Reduce the risk of harm to the client by over- or under-usage of drug treatment
- Reduce the risk of harm to the local community by the inappropriate use of prescribed medicines via the illicit drug market
- Reduce the risk of harm to the community by accidental exposure to prescribed medicines.

The PBSAP service is a locally commissioned service with community pharmacies in the Lincolnshire, however from October 2017 this responsibility will move to the substance misuse provider (Addaction) and become part of treatment service. Addaction will arrange subcontracting with individual pharmacies prior to the transfer taking place.

Seventy-one community pharmacies (58%) in Lincolnshire are sub-commissioned to provide this service, across all seven localities.

Supervised administration services are referred to as an enhanced service within the 2013 Directions. In theory, they may be commissioned by NHS England as a pharmaceutical enhanced service but currently they are commissioned by LCC. If NHS England chooses to commission this service from pharmacies in the future, this should be based upon a defined need within the population. It should also consider the capacity, activity and accessibility of all providers of supervised administration substance misuse services within Lincolnshire when establishing the service need and the commissioning intentions for pharmacies.

6.5.5 Needle exchange service

This service is an integral part of the harm reduction strategy for drug users. It aims to reduce the spread of blood-borne pathogens, e.g. hepatitis B, hepatitis C and HIV, and to act as a referral point for service users to other health and social care services.

Only 17 community pharmacies (14%) in Lincolnshire are subcontracted to provide this service for adults across all seven localities.

Needle and syringe exchange services are referred to as an enhanced service within the 2013 Directions. In theory, they may be commissioned by NHS England as a pharmaceutical enhanced service but currently they are commissioned by LCC. If NHS England chooses to commission this service from pharmacies in the future, this should be based upon a defined need within the population. It should also consider the capacity, activity and accessibility of all providers of needle and syringe exchange services within Lincolnshire when establishing the service need and the commissioning intentions for pharmacies.

6.6 PNA localities

There are 122 community pharmacies and 1 DAC within Lincolnshire and pharmacy opening times are listed in Appendix A. Although specific data is not available, it is anticipated that some residents may rely upon the delivery services provided by community pharmacies, distance-selling pharmacies and DACs.

As described within Section 1.5, the PNA Steering Group agreed that the Lincolnshire districts would be used to define the localities of the Lincolnshire HWB geography. Substantial health data is available at this level and populations and their health needs vary widely between localities. This is illustrated and discussed in detail in Section 2.

Taking the health needs highlighted in each district into consideration, this chapter considers the pharmaceutical service provision within each district.

A number of districts have been awarded up to £8 million as part of a national strategy for sustainable development. Lincolnshire HWB will continue to monitor pharmaceutical service provision in specific areas within the district where major housing developments are planned, to ensure there is capacity to meet potential increases in service demand.

6.6.1 Boston

Boston has a population of 66,902, making it the least populated district in the Lincolnshire HWB. It is classified as urban with significant Rural (rural including hub towns 26-49%) according to the Rural-Urban Classification 2011.

There are ten community pharmacies in this district and the estimated average number of community pharmacies per 100,000 population is 14.9. This is less than the Lincolnshire average (16.7) and lower than the England average (21.5), (Section 3.1, Table 15). Eight pharmacies hold a standard 40-core hour contract, there is one 100-hour contract pharmacy and one distance selling/internet pharmacy. There are also four GP dispensing practices in this district.

Of the 10 pharmacies:

- 4 pharmacies (44%) are open after 6pm on weekdays
- 7 pharmacies (77%) are open on Saturdays
- 2 pharmacies (22%) are open on Sundays
- 9 pharmacies (100%) provide MURs
- 8 pharmacies (89%) provide NMS
- 6 pharmacies (67%) provide flu vaccination services

Regarding access to locally commissioned services within the 10 pharmacies:

- 1 pharmacy (11%) provides the Support to Stop Smoking service
- 4 pharmacies (44%) provide needle exchange services
- 9 pharmacies (100%) provide supervised administration
- 8 pharmacies (89%) provide EHC and pregnancy testing

The pharmacies providing these locally commissioned services have varying opening times and are located in the more densely populated areas of the district.

Appendix A contains details of pharmacy opening times, contractual status and the provision of advanced services, enhanced services and locally commissioned services. Several community pharmacies and dispensing practices provide free prescription delivery services which many residents may find helpful.

The population of Boston are well served with a choice of community pharmacies located in densely populated areas where other necessary amenities are located even though the average number of community pharmacies per 100,000 is less than the Lincolnshire and England average.

Following analysis of the location of the community pharmacies, the average car journey travel time to a community pharmacy and the population density distribution within Boston, no gap has been identified in the provision of pharmaceutical services for the population of Boston.

6.6.2 East Lindsey

East Lindsey has a population of 137,887, making it the second most populated district in the Lincolnshire HWB. It is classified as mainly rural (rural including hub towns >=80%) according to the Rural-Urban Classification 2011.

There are 26 community pharmacies in this district and the estimated average number of community pharmacies per 100,000 population is 18.7. This is the second highest average compared to Lincolnshire average (16.7) and England average (21.5), (Section 3.1, Table 15). Twenty-four pharmacies hold a standard 40-core hour contract and there are two 100-hour contract pharmacies. There are also 17 GP dispensing practices in the district.

Of the 26 pharmacies:

- 9 pharmacies (35%) are open after 6pm on weekdays
- 20 pharmacies (77%) are open on Saturdays
- 5 pharmacies (19%) are open on Sundays
- 23 pharmacies (88%) provide MURs
- 21 pharmacies (81%) provide NMS
- 19 pharmacies (73%) provide flu vaccination services

Regarding access to locally commissioned services within the 26 pharmacies:

- 10 pharmacies (38%) provide the Support to Stop Smoking service
- 4 pharmacies (15%) provide needle exchange services
- 15 pharmacies (58%) provide supervised administration
- 16 pharmacies (62%) provide EHC and pregnancy testing

The pharmacies providing these locally commissioned services have varying opening times and are in the more densely populated areas of the district.

Appendix A contains details of pharmacy opening times, contractual status and the provision of advanced services, enhanced services and locally commissioned services. Several community pharmacies and dispensing practices provide free prescription delivery services which many residents may find helpful.

Analysis of the health needs in East Lincolnshire (Chapter 2) refer to the pockets of deprivation and the subsequent health in equalities in this district. The district is sparsely populated however has a regular influx of temporary residents (holiday makers/ seasonal workers) therefore provision for adequate pharmaceutical services is imperative.

Currently pharmacies are located in densely-populated areas where other amenities are also located. There are a few dispensing GP practices located in more rural areas.

Following analysis of the location of the community pharmacies, the average car journey travel time to a community pharmacy, the population density distribution within this district and the influx of temporary residents, no gaps have been identified in the provision of pharmaceutical services for the population of East Lindsey.

6.6.3 Lincoln

Lincoln has a population of 97,065, making it the fourth most populated district. It is classified as urban with city and town according to the Rural-Urban Classification 2011.

There are 22 community pharmacies including 1 DAC in this district and the estimated average number of community pharmacies per 100,000 population is 22.7. This is greater than the Lincolnshire average (16.7) and England average (21.5), (Section 3.1, Table 15). Of these pharmacies, 17 hold a standard 40-core hour contract while three hold a 100-hour contract, one Dispensing Appliance Contractor and one Out-of-Town Retail Community Pharmacy.

Of the 22 pharmacies:

- 9 pharmacies (41%) are open after 6pm on weekdays
- 18 pharmacies (82%) are open on Saturdays
- 7 pharmacies (32%) are open on Sundays
- 19 pharmacies (86%) provide MURs
- 19 pharmacies (86%) provide NMS
- 11 pharmacies (50%) provide flu vaccination services

Regarding access to locally commissioned services within the 22 pharmacies:

- 9 pharmacies (41%) provide the Support to Stop Smoking service
- 2 pharmacies (9%) provide needle exchange services
- 13 pharmacies (59%) provide supervised administration
- 15 pharmacies (68%) provide EHC and pregnancy testing

The pharmacies providing these locally commissioned services have varying opening times and are located in the more densely populated areas of the district.

Appendix A contains details of pharmacy opening times, contractual status and the provision of advanced services, enhanced services and locally commissioned services. Several community pharmacies and dispensing GP practices also provide free prescription delivery services which many residents may find helpful.

Lincoln is busy city with a large choice of community pharmacies available to the population where the average number of pharmacies per 100,000 population greater than both the Lincolnshire and England average. No gaps have been identified for the provision of pharmaceutical services for the population of Lincoln.

6.6.4 North Kesteven

North Kesteven has a population of 111,876, making it the third highest populated district in the Lincolnshire HWB. It is classified as mainly rural (rural including hub towns >=80%) according to the Rural-Urban Classification 2011.

There are 18 community pharmacies in this district and the estimated average number of community pharmacies per 100,000 population is 16.1. This is similar in comparison to the Lincolnshire average (16.7) and but lower than the England average (21.5), (Section 3.1, Table 15). Fifteen pharmacies hold a standard 40-core hour contract and there are three 100-hour contract pharmacies. There are also eight GP dispensing practices in the district.

Of the 18 pharmacies:

- 5 pharmacies (28%) are open after 6pm on weekdays
- 16 pharmacies (89%) are open on Saturdays
- 4 pharmacies (22%) are open on Sundays
- 15 pharmacies (83%) provide MURs
- 14 pharmacies (78%) provide NMS
- 14 pharmacies (78%) provide flu vaccination services

Regarding access to locally commissioned services within the 18 pharmacies:

- 7 pharmacies (39%) provide the Support to Stop Smoking service
- 1 pharmacy (5%) provides needle exchange services
- 12 pharmacies (67%) provide supervised administration
- 5 pharmacies (28%) provide EHC and pregnancy testing

The pharmacies providing these locally commissioned services have varying opening times and are located in the more densely populated areas of the district.

Appendix A contains details of pharmacy opening times, contractual status and the provision of advanced services, enhanced services and locally commissioned services. Several community pharmacies and dispensing GP practices provide free prescription delivery services which many residents may find helpful.

Pharmacies in North Kesteven are well distributed where majority of the population resides, and a few GP dispensing practices are located in rural areas. There is good provision for necessary services in this district and no gaps have been identified for the provision of pharmaceutical services for the population of North Kesteven.

6.6.5 South Holland

South Holland has a population of 91,214, making it the second lowest populated district in the Lincolnshire HWB. It is classified as largely rural (rural including hub towns 50-79%) according to the Rural-Urban Classification 2011.

There are 13 community pharmacies in this district including one internet/distance-selling pharmacy, and the estimated average number of community pharmacies per 100,000 population is 14.0. This is much lower in comparison to the Lincolnshire average (16.7) and the England average (21.5), (Section 3.1, Table 15). Eleven pharmacies hold a standard 40-core hour contract and there is one 100-hour contract pharmacy. There are also nine GP dispensing practices in the district.

Of the 13 pharmacies:

- 5 pharmacies (38%) are open after 6pm on weekdays
- 12 pharmacies (92%) are open on Saturdays
- 2 pharmacies (15%) are open on Sundays
- 13 pharmacies (100%) provide MURs
- 12 pharmacies (92%) provide NMS
- 10 pharmacies (77%) provide flu vaccination services

Regarding access to locally commissioned services within the 18 pharmacies:

- 3 pharmacies (23%) provide the Support to Stop Smoking service
- 2 pharmacies (15%) provide needle exchange services
- 6 pharmacies (46%) provide supervised administration
- 7 pharmacies (54%) provide EHC and pregnancy testing

The pharmacies providing these locally commissioned services have varying opening times and are located in the more densely populated areas of the district.

Appendix A contains details of pharmacy opening times, contractual status and the provision of advanced services, enhanced services and locally commissioned services. Several community pharmacies and dispensing GP practices provide free prescription delivery services which many residents may find helpful.

The average number of community pharmacies per 100,000 population is understandably lower due to the lower population and hence lower demand for services. However, despite the large rural area and the sparsely populated district, there is good provision for necessary services in this district and no gaps have been identified for the provision of pharmaceutical services for the population of South Holland.

6.6.6 South Kesteven

South Kesteven has a population of 138,909, making it the highest populated district in the Lincolnshire HWB. It is classified as largely rural (rural including hub towns 50-79%) according to the Rural-Urban Classification 2011.

There are 20 community pharmacies in this district and the estimated average number of community pharmacies per 100,000 population is 14.4. This is much lower in comparison to the Lincolnshire average (16.7) and England average (21.5), (Section 3.1, Table 15). Seventeen pharmacies hold a standard 40-core hour contract and there are three 100-hour contract pharmacies. There are also 13 GP dispensing practices in the district.

Of the 20 pharmacies:

- 5 pharmacies (25%) are open after 6pm on weekdays
- 19 pharmacies (95%) are open on Saturdays
- 4 pharmacies (20%) are open on Sundays
- 17 pharmacies (85%) provide MURs
- 15 pharmacies (75%) provide NMS
- 16 pharmacies (80%) provide flu vaccination services

Regarding access to locally commissioned services within the 20 pharmacies:

- 2 pharmacies (10%) provide the Support to Stop Smoking service
- 3 pharmacies (15%) provide needle exchange services
- 13 pharmacies (65%) provide supervised administration
- 13 pharmacies (65%) provide EHC and pregnancy testing

The pharmacies providing these locally commissioned services have varying opening times and are located in the more densely populated areas of the district.

Appendix A contains details of pharmacy opening times, contractual status and the provision of advanced services, enhanced services and locally commissioned services. Several community pharmacies provide free prescription delivery services which many residents may find helpful.

Despite the lower average of community pharmacies per 100,000 population in comparison to Lincolnshire and England, a large part of this district is rural and community pharmacies are located in the densely-populated area where the population can access other amenities. There are a few dispensing GP practices located in rural areas.

There is good provision for necessary services in this district and no gaps have been identified for the provision of pharmaceutical services for the population of South Kesteven.

6.6.7 West Lindsey

West Lindsey has a population of 92,812, making it one of the lower populated localities in the Lincolnshire HWB. It is classified as mainly rural (rural including hub towns >=80%) according to the Rural-Urban Classification 2011.

There are 14 community pharmacies in this district including one internet/distance-selling pharmacies and the estimated average number of community pharmacies per 100,000 population is 14.9. This is lower in comparison to the Lincolnshire average (16.7) and England average (21.5), (Section 3.1, Table 15). Thirteen pharmacies hold a standard 40-core hour contract and there are no 100-hour contract pharmacies. There are also nine GP dispensing practices in the district.

Of the 14 pharmacies:

- 6 pharmacies (40%) are open after 6pm on weekdays
- 10 pharmacies (67%) are open on Saturdays
- 1 pharmacy (7%) is open on Sundays
- 13 pharmacies (87%) provide MURs
- 12 pharmacies (80%) provide NMS
- 9 pharmacies (60%) provide flu vaccination services

Regarding access to locally commissioned services within the 15 pharmacies:

- 6 pharmacies (40%) provide the Support to Stop Smoking service
- 1 pharmacy (7%) provides needle exchange services
- 7 pharmacies (47%) provide supervised administration
- 10 pharmacies (67%) provide EHC and pregnancy testing

The pharmacies providing these locally commissioned services have varying opening times and are located in the more densely populated areas of the district.

Appendix A contains details of pharmacy opening times, contractual status and the provision of advanced services, enhanced services and locally commissioned services. Several community pharmacies provide free prescription delivery services which many residents may find helpful.

West Lindsey is the only district in Lincolnshire with no 100-hour contract pharmacy, however as with other districts, this is a large rural area and pharmacies are located in densely populated areas of the district. The population also has access to community pharmacies and dispensing GP practices across the border and these may be more convenient and accessible. The public questionnaire did not receive any responses highlighting concerns about access or lack of pharmaceutical services in this district and only 1% of respondents visit a pharmacy on Sunday.

Following analysis, there is good provision for necessary services in this district and no gaps have been identified for the provision of pharmaceutical services for the population of West Lindsey.

6.7 Necessary services – gaps in service provision

For the purposes of this PNA, necessary services are defined as:

- Essential services provided at all premises on the pharmaceutical list during all the opening hours of the pharmacy in line with their terms of service as set out in the Pharmaceutical Regulations 2013
- Advanced services in line with their terms of service as set out in the Pharmaceutical Regulations 2013

Lincolnshire HWB has considered the White Paper 'Pharmacy in England: building on strengths – delivering the future' (2008) which states that it is the strength of the current system that community pharmacies are easily accessible. Lincolnshire HWB considers that the population of Lincolnshire currently experiences this situation in all seven PNA localities.

When assessing the provision of necessary services in Lincolnshire and each of the seven PNA loaclities, Lincolnshire HWB has considered the following:

- The map showing the location of pharmacies within Lincolnshire in relation to localities and population density, indicating that pharmacies are generally located within areas of higher population density (Map A)
- The proportion of district population not born in UK; BME levels (Table 6)

- The location of community pharmacies in Lincolnshire and car journey travel time (Map B)
- The location of community pharmacies in Lincolnshire and surrounding areas and car journey travel time (Map C)
- The number, distribution and opening times of pharmacies within each of the seven PNA localities and across the whole of Lincolnshire (Appendix A)
- The choice of pharmacies covering each of the seven PNA localities and the whole of Lincolnshire (Appendix A)
- Location and opening hours of GP practices, including those providing extended opening hours (Appendix B)
- Results of the public questionnaire (Section 5)
- Proposed new housing developments (Table 14)
- Projected population growth (Figure 4, Table 2)

In Lincolnshire, there are pharmacies open beyond what may be regarded as regular hours in that they provide pharmaceutical services during supplementary hours in the evening, on Saturday and on Sunday. There are thirteen 100-hour pharmacies spread across six localities (Section 3.1.2 Table 17) accounting for 10.6% of all pharmacies within Lincolnshire. West Lindsey is the only district without a 100-hour contract pharmacy, however the population may have access to such a pharmacy in the neighbouring localities or a bordering HWB area. The population has a reasonable proportion of pharmacies open beyond regular hours within Lincolnshire.

Due to the diverse geography of Lincolnshire comprising large rural and agricultural areas the population density varies within localities. Community pharmacies are located in the more densely populated areas and Map B illustrates the drive travel time for the population where the maximum drive time is up to 20 minutes and, in some cases, up to 30 minutes. This concurs with the results from the public questionnaire where 16% of respondents reported 16-30 minutes as travel time to a pharmacy.

The population also has access to internet/distance-selling pharmacies which are contracted to provide all essential services, and some of the population may also have access to community pharmacies in a neighbouring HWB area.

There are a significant number of new housing development plans in progress within all seven localities in Lincolnshire which will have an impact on population densities and subsequent health needs. Lincolnshire HWB will consider the responses from the public, pharmacy contractors and other stakeholders involved in these developments as they progress during the three-year time horizon of the PNA.

The four Lincolnshire CCGs' Commissioning Intentions and the Joint Health and Wellbeing Strategic Plan both refer to initiatives that could have an impact on the provision of pharmaceutical services in Lincolnshire in the next three years, e.g. relocation of secondary care-based services into primary care settings, a focus on developing integrated pathways of care and the out-of-hospital care initiatives.

These could see an increase in demand for pharmaceutical services in primary care settings within Lincolnshire. These will be considered by Lincolnshire HWB as the CCGs progress with their commissioning intentions.

Changes in the provision of GP practice-based services are already occurring, e.g. increased opening hours. Future development of the primary care estate and resultant changes in service provision could see an increase in demand for pharmaceutical services in primary care settings within Lincolnshire.

It is unclear if these changes will occur during the time horizon of this PNA. Any changes will be considered by Lincolnshire HWB as the CCG progresses with its commissioning intentions.

6.8 Improvements and better access - gaps in service provision

Lincolnshire HWB recognises that any addition of pharmaceutical services by location, provider, hours or services should be considered, however a principle of proportionate consideration should apply.

The public questionnaire did not record any specific themes relating to pharmacy opening times (Section 5). Lincolnshire HWB therefore concludes there is no significant information to indicate there is a gap in the current provision of pharmacy opening times.

The same conclusion is reached in considering whether there is any future specified circumstance that would result in creating a gap in pharmaceutical provision at certain times, based upon the current information and evidence available.

With regard to enhanced services, Lincolnshire HWB is mindful that only those services commissioned by NHS England are regarded as pharmaceutical services. However, since 1st April 2013, there has been a shift in commissioning arrangements for some services that would otherwise be defined as enhanced services (Section 1.3.1).

Therefore, the absence of a particular service being commissioned by NHS England is addressed by a service being commissioned through LCC (as in the case of EHC, chlamydia screening and substance misuse services). This PNA identifies these as locally commissioned services (LCS).

Lincolnshire HWB notes that there is a variation in accessibility of LCS to the population in all PNA localities, and in some cases the LCS may be provided by a provider other than a community pharmacy. Lincolnshire HWB also notes that it is unclear in some cases if these services are meeting the needs of the local population due to insufficient data. Nevertheless, Lincolnshire HWB has not been presented with any evidence to date which concludes that any of these LCS should be decommissioned or that any of them should be expanded.

The main causes of mortality in Lincolnshire are CHD, COPD, diabetes and cancer. Commissioners may wish to consider commissioning community pharmacies to provide screening services for current and future service provision of these target areas.

The pharmacy contractor questionnaire did identify that respondents would be willing to provide cholesterol screening services (84%), diabetes screening (84%) and COPD management services (90%) which could contribute to improving the identification of those at risk of and provide ongoing support to help those already suffering from a long-term condition.

Lifestyle issues such as smoking, obesity and drugs and alcohol remain priorities for Lincolnshire HWB.

Smoking prevalence in Lincolnshire is slightly higher than the regional figure,17.7%, and the England figure,15.5%, (2016) and smoking during pregnancy continues to be an issue. Thirty-eight (31%) community pharmacies provide stop smoking services across all seven districts. The Lincolnshire stop smoking service on average reports a 53%-63% quit rate of smokers quitting at four weeks.

Accessing all information used to construct this PNA, Lincolnshire HWB considered the location, number, distribution and choice of pharmacies covering each of the seven districts in Lincolnshire providing LCS, to provide improved access to the population for these services. Based on the current information and evidence available, this conclusion is also applied when considering any future circumstances within the time horizon of the PNA.

Section 7: Conclusions

7.1 Current provision - necessary and other relevant services

Lincolnshire HWB has identified necessary services in Section 6.7 as essential services and advanced services as required by paragraphs 1 and 3 of Schedule 1 to the Pharmaceutical Regulations 2013.

Lincolnshire HWB has identified enhanced services in Section 3.6 as pharmaceutical services which secure improvements or better access, or which have contributed towards meeting the need for pharmaceutical services in the area of Lincolnshire HWB.

Lincolnshire HWB has identified locally commissioned services in Section 4.1, 4.2 and 6.5 which secure improvements or better access, or have contributed towards meeting the need for pharmaceutical services in the area of Lincolnshire HWB.

7.2 Necessary services – gaps in provision

In reference to Section 6, and required by paragraph 2 of schedule 1 to the Pharmaceutical Regulations 2013:

7.2.1 Access to essential services

In order to assess the provision of essential services against the needs of the residents of Lincolnshire, Lincolnshire HWB considers access (average travel times) and opening hours as the most important factors in determining the extent to which the current provision of essential services meets the needs of the population.

7.2.1.1 Access to essential services normal working hours

Lincolnshire HWB has determined that the average travel times, and opening hours of pharmacies in all seven districts, across the whole HWB area are reasonable in all circumstances.

No gaps have been identified in the provision of essential services during normal working hours across the whole HWB area.

7.2.1.2 Access to essential services outside normal working hours

There are thirteen 100-hour contract pharmacies and fourteen 'late night' pharmacies (open beyond 8pm) within Lincolnshire. These are geographically spread across Lincolnshire and the seven districts. During extended GP opening hours, there is at least one pharmacy open within a reasonable distance, hence currently no gap has been identified in service which would require a change to the current provision for access to essential services outside normal hours in this district. Lincolnshire HWB will monitor the uptake and need for necessary services and where potential shortfalls exist, these will be commissioned from current providers.

No gaps have been identified in the provision of essential services outside of normal working hours across the whole HWB area.

7.2.2 Access to advanced services

Section 6.3 defines the level of access to advanced services. There is no identified gap in the provision of advanced services as MURs are available in 87%, NMS is available in 82% and flu vaccination is available in 70% of pharmacies across all seven localities. There is no information available publicly with regard to the provision of NUMSAS.

Lincolnshire HWB will monitor the uptake and need for necessary services and where potential shortfalls exist, these will be commissioned from current providers.

No gaps have been identified in the provision of advanced services across the whole HWB area.

7.2.3 Access to enhanced services

Section 6.4 defines the level of access to enhanced services. There is one enhanced service commissioned by NHS England. As agreed by the PNA Steering group, enhanced services are not necessary services therefore they are not in the scope of the PNA. As a result, no gaps have been identified in service.

No gaps have been identified in the provision of enhanced services across the whole HWB area.

7.3 Future provision of necessary services

Lincolnshire HWB has not identified any pharmaceutical services that are not currently provided but that will, in specified future circumstances, need to be provided in order to meet a need for pharmaceutical services in any of the seven localities.

No gaps have been identified in the need for pharmaceutical services in specified future circumstances across the whole HWB area.

7.4 Improvements and better access – gaps in provision

As described in Section 6 and required by paragraph 4 of Schedule 1 to the Pharmaceutical Regulations 2013:

7.4.1 Current and future access to essential services

Lincolnshire HWB has not identified services that would, if provided either now or in future specified circumstances, secure improvements or better access to essential services in any of the seven localities.

No gaps have been identified in essential services that if provided either now or in the future would secure improvements or better access to essential services across the whole HWB area.

7.4.2 Current and future access to advanced services

In 2016-17, MURs services were available in 89% of pharmacies and NMS were available in 82% of pharmacies across all localities. Where applicable, NHS England will encourage all pharmacies and pharmacists to become eligible to deliver the service in all pharmacies so that more of the population are able to access and benefit from this service. In addition, 70% of pharmacies provide access to the flu vaccination service.

Demand for the appliance advanced services (SAC and AUR) is lower than for the other two advanced services, due to the much smaller proportion of the population that may require the services. Pharmacies and DACs may choose which appliances they provide and may also choose whether to provide the two related advanced services. NHS England will encourage those contractors in the areas that do provide appliances to become eligible to deliver these advanced services where appropriate.

No data is available publicly with regard to the provision of NUMSAS.

No gaps have been identified in the provision of advanced services at present or in the future that would secure improvements or better access to advanced services across the whole HWB area.

7.4.3 Current and future access to enhanced services

NHS England only commissions one out of hours enhanced service from community pharmacies in a specific area.

Some of the enhanced services listed in the 2013 Directions (Section 1.3.1) are commissioned by LCC (Stop Smoking, EHC, chlamydia screening and substance misuse) and therefore fall outside of the definition of both enhanced services and pharmaceutical services and are not in the scope of this PNA.

There are no gaps identified in respect of securing improvements or better access to enhanced services provision on a district basis as identified in Section 6.2 either now or in specified future circumstances.

No gaps have been identified that if provided either now or in the future would secure improvements or better access to enhanced services across the whole HWB area.

Comprehensive service reviews are required in order to establish if currently and in future scenarios, improvement of or better access to enhanced services across the whole HWB area would be appropriate, however this is out of the scope of the PNA.

7.5 Other NHS services

As required by paragraph 5 of Schedule 1 to the Pharmaceutical Regulations 2013, Lincolnshire HWB has had regard for any other NHS Services that may affect the need for pharmaceutical services in the area of Lincolnshire HWB. Lincolnshire HWB will consider any current or future needs as these plans are developed, and where potential shortfalls exist, these will be commissioned from current providers.

Based on current information no gaps have been identified in respect of securing improvements or better access to other NHS services either now or in specified future circumstances across the whole HWB area.

7.6 Locally commissioned services

With regard to enhanced services and locally commissioned services, Lincolnshire HWB is mindful that only those commissioned by NHS England are regarded as pharmaceutical services. The absence of a particular service being commissioned by NHS England is in some cases addressed by a service being commissioned through LCC (Stop Smoking, EHC, chlamydia screening and substance misuse). This PNA identifies those as locally commissioned services (LCS).

Lincolnshire HWB has not been presented with any evidence to date which concludes that any of these LCS should be expanded and any service reviews are out of the scope of the PNA.

Lincolnshire HWB notes that all LCS are accessible to the population in all seven districts. Lincolnshire HWB also notes that it is unclear if these services are meeting the needs of the local population and further work is needed as part of a detailed service review to establish this. Nevertheless, Lincolnshire HWB has not been presented with any evidence to date which concludes that any of these LCS should be decommissioned or that any of them should be expanded. Based on current information Lincolnshire HWB has not identified a need to commission any locally commissioned services not currently commissioned.

Regular service reviews are recommended to establish if currently and in future scenarios locally commissioned services secure improvement or better access across all HWB localities. However these are out of the scope of the PNA.

Abbreviations

5YFV - Five Year Forward View

AURs - Appliance Use Reviews

BME - Black and Minority Ethnic

BMI - Body Mass Index

BSA – Business Services Authority

CB – Commissioning Board

CCGs – Clinical Commissioning Groups

CHD – Coronary Heart Disease

COPD - Chronic Obstructive Pulmonary Disease

CPCF - Community Pharmacy Contractual Framework

CVD - Cardiovascular Disease

DAC – Dispensing Appliance Contractor

DH - Department of Health

DSP - Distance-Selling Pharmacy

EHC – Emergency Hormonal Contraception

EPS - Electronic Prescription Service

ES - Essential services

ESPS - Essential Small Pharmacy Scheme

EU - European Union

GFR - General Fertility Rate

GP - General Practitioner

HIV - Human Immunodeficiency Virus

HSCIC - Health and Social Care Information Centre

HWB - Health and Wellbeing Board

IMD – Index of Multiple Deprivation

JSNA – Joint Strategic Needs Assessment

LA – Local Authority

LCC - Lincolnshire County Council

LCHS – Lincolnshire Community Health Services NHS Trust

LCS - Locally Commissioned Services

LE – Life Expectancy

LMC - Local Medical Committee

LPC - Local Pharmaceutical Committee

LPFT – Lincolnshire Partnership NHS Foundation Trust

LPS - Local Pharmaceutical Service

LRO – Lincolnshire Research Observatory

LSOA - Lower Super Output Areas

MURs - Medicines Use Reviews

NCSP - National Chlamydia Screening Programme

NHS - National Health Service

NICE – National Institute for Health and Care Excellence

NMS - New Medicines Service

NPS - Novel Psychoactive Substances

NUMSAS - NHS Urgent Medicine Supply Advanced Service

ONS - Office for National Statistics

PANSI - Projecting Adult Needs and Service Information System

PBSAP – Pharmacy-Based Supervised Administration Programme

PGD – Patient Group Direction

PhAS - Pharmacy Access Scheme

PhIF - Pharmacy Integration Fund

PHOF – Public Health Outcomes Framework

POPPI – Projecting Older People Population Information System

PCTs - Primary Care Trusts

PHE - Public Health England

PNA - Pharmaceutical Needs Assessment

PSNC – Pharmaceutical Services Negotiating Committee

QOF – Quality and Outcomes Framework

SAC – Stoma Appliance Customisation

STI – Sexually Transmitted Infection

STP – Sustainability and Transformation Plan

ULHT – United Lincolnshire Hospitals NHS Trust

Glossary

Appliance Use Reviews (AURs) - A service provided by a pharmacist or a specialist nurse in the pharmacy or at the patient's home to improve the patient's knowledge and use of any specified appliance (e.g. catheter, laryngectomy or tracheostomy appliance, irrigation system, wound drainage pouch, etc.)

Flu vaccination service - A service provided by community pharmacies in England to offer a seasonal influenza (flu) vaccination service for patients in at-risk groups.

NHS Urgent Medicines Supply Advanced Service (NUMSAS) - A community pharmacy national pilot to manage NHS 111 requests for urgent medicine supply, resolve problems leading to patients running out of their medicines, to increase patients' awareness of electronic repeat dispensing and to reduce the demand on the rest of the urgent care system

New Medicine Service (NMS) - A service that provides support to patients with long-term conditions such as hypertension, antiplatelet/anticoagulant therapy, asthma, COPD and Type 2 diabetes, to help improve medicines adherence when prescribed new medicines for these conditions.

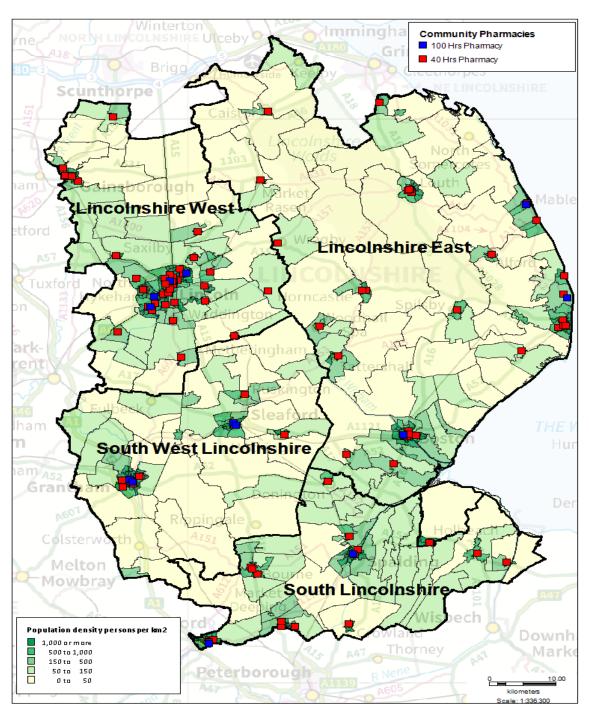
Pharmacy Access Scheme (PhAS) – A Department of Health (DH) confirmed scheme to ensure that a baseline level of patient access to NHS community pharmacy services is protected. The PhAS will protect access in areas where there are fewer pharmacies with higher health needs, so that no area need be left without access to NHS community pharmaceutical services.

Pharmacy Integration Fund (PhIF) - The aim of the PhIF is to support the development of clinical pharmacy practice in a wider range of primary care settings, resulting in a more integrated and effective NHS primary care patient pathway. In particular, the PhIF is intended to drive the greater use of community pharmacy, pharmacists and pharmacy technicians in new, integrated local care models.

Medicines Use Reviews (MURs) - A structured appraisal that involves a pharmacist reviewing the patient's use of their medication, ensuring they understand how their medicines should be used, why they have been prescribed, identifying any problems and then, where necessary, providing feedback to the prescriber.

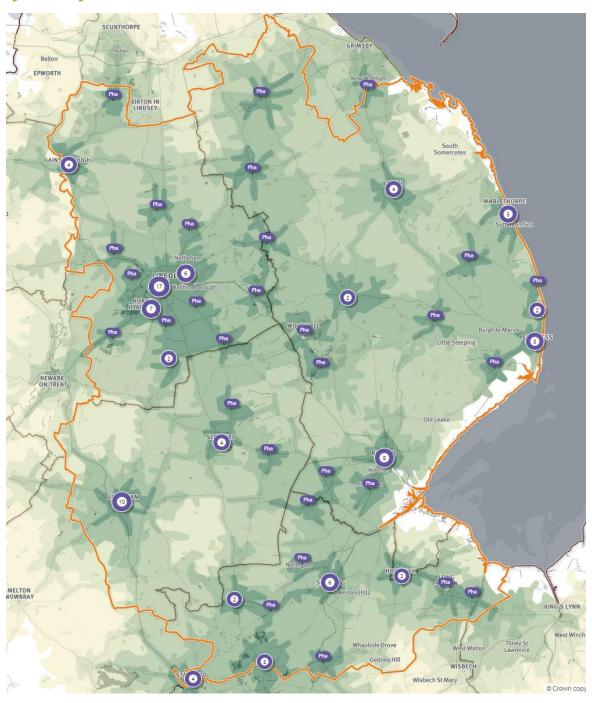
Stoma Appliance Customisation (SAC) - A service provided by a pharmacy that involves the customisation of a quantity of more than one stoma appliance, based on the patient's measurements or a template to ensure proper use and comfortable fitting of the stoma appliance and to improve the duration of usage, thereby reducing waste.

Map A: Location of community pharmacies and distribution in Lincolnshire



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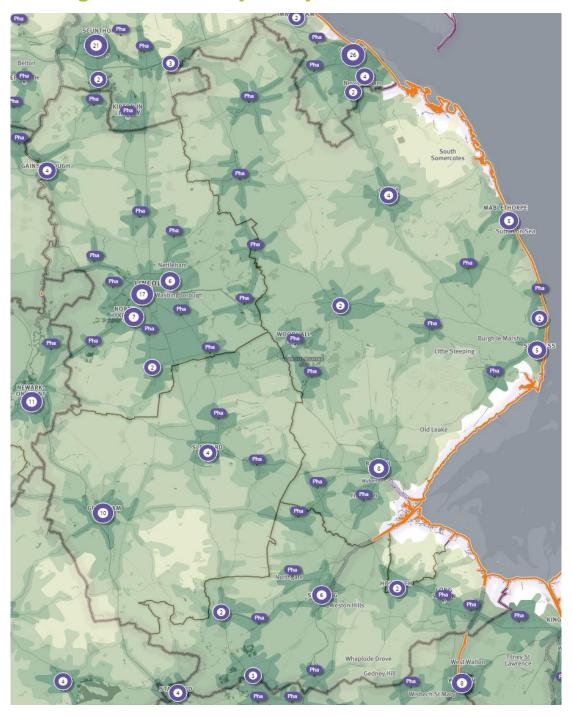
Map B: Location of community pharmacies in Lincolnshire and car journey travel time



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Pha	Community Pharmacy
0	Number of community pharmacies in close proximity
① 5 10 15 20 30 minutes	Travel time in minutes

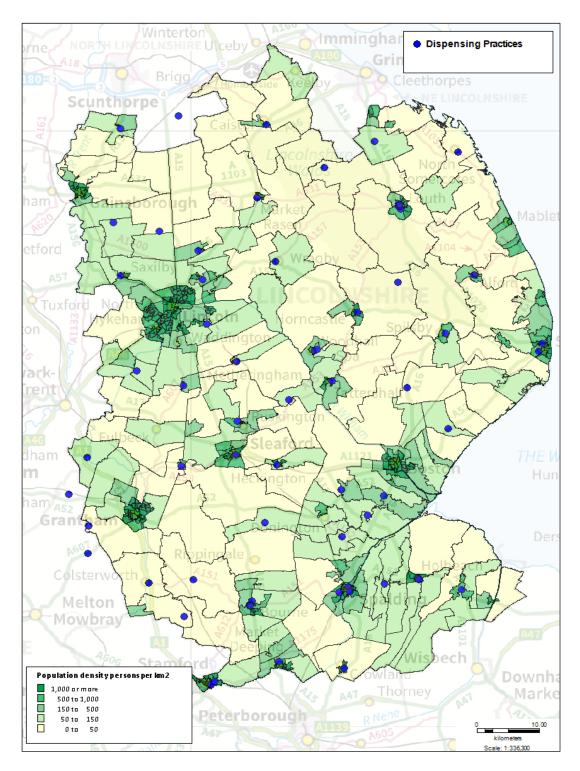
Map C: Location of community pharmacies in Lincolnshire and surrounding areas and car journey travel time



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Pha	Community Pharmacy
0	Number of community pharmacies in close proximity
① 5 10 15 20 30 minutes	Travel time in minutes

Map D: Location of the dispensing GP practices in Lincolnshire

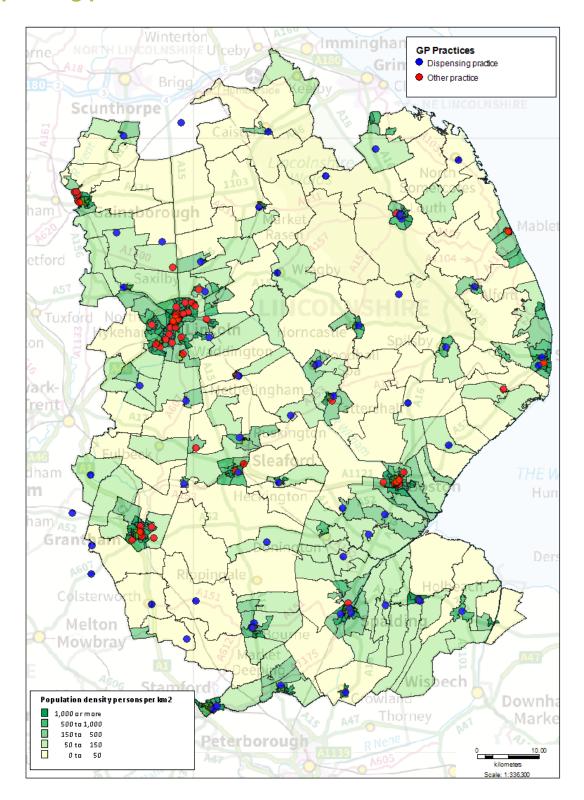


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Source: ONS, 2015 mid-year population estimates; NHS England, Pharmaceutical list, June 2017

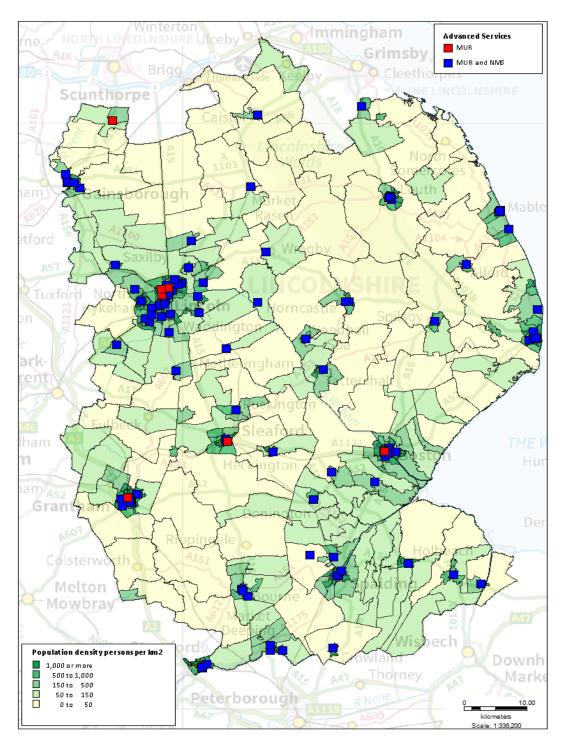
Note: Some dispensing practices are included which are outside of the Lincolnshire boundary as they serve significant numbers of Lincolnshire residents and are part of a Lincolnshire CCG.

Map E: Location of GP practices in Lincolnshire, including dispensing practices



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Map F: Pharmacies which provide Medicine Use Review and New Medicine Services



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