



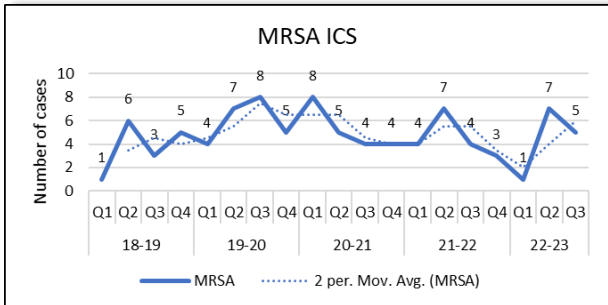
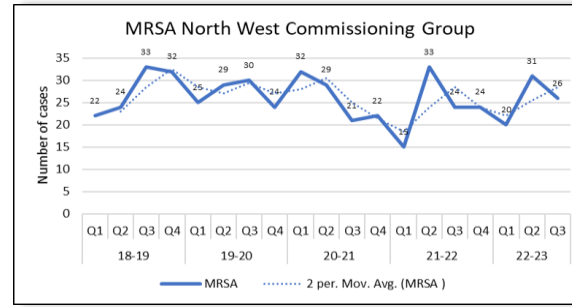
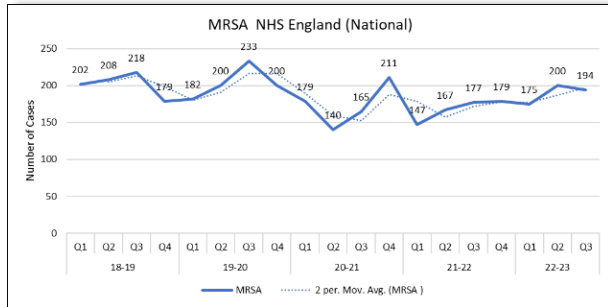
Infection Prevention Report

Quarter 3 (October to December 2022)

Anita Watson, Lead Nurse, Infection Prevention and Control



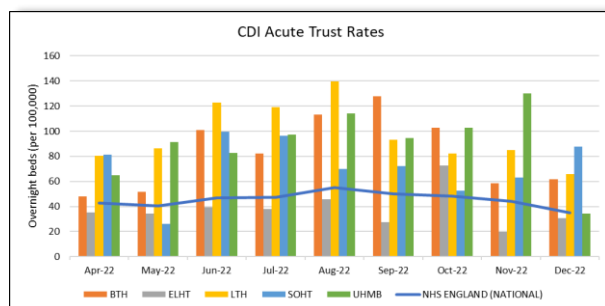
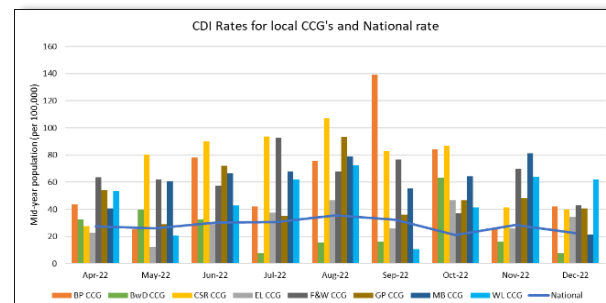
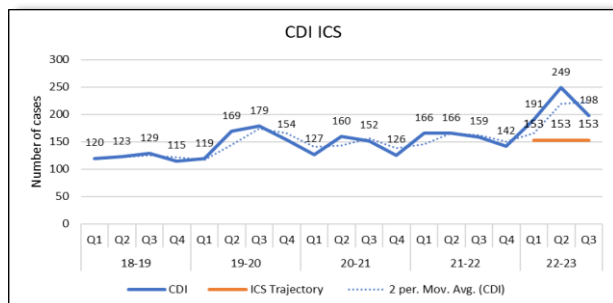
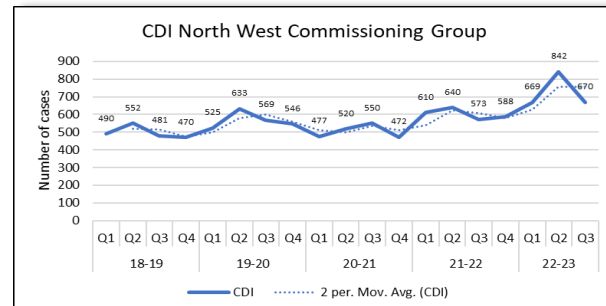
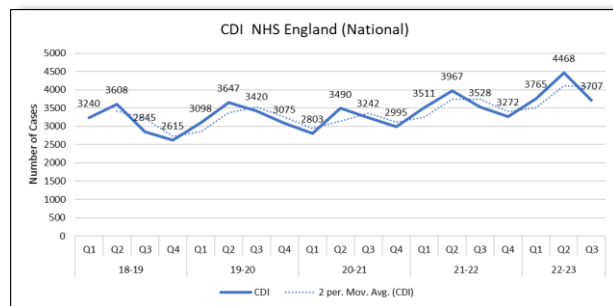
Meticillin resistant Staphylococcus aureus (MRSA)



MRSA data	QTR 1	QTR 2	QTR 3	Total
B'pool CCG		3	2	5
BwD CCG	1	1		2
CSR CCG				
EL CCG		1	1	2
FW CCG				
GP CCG		2	1	3
MB CCG				
WL CCG			1	1
Hospital onset		2		2
Community Onset	1	5	5	11
Total	1	7	5	13

MRSA Acute Trust data	QTR 1	QTR 2	QTR 3	Total
BTH		2		2
ELHT				
LTH				
SOHT				
UHMB				
Total		2		2

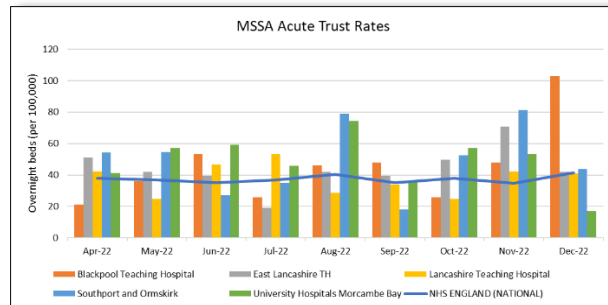
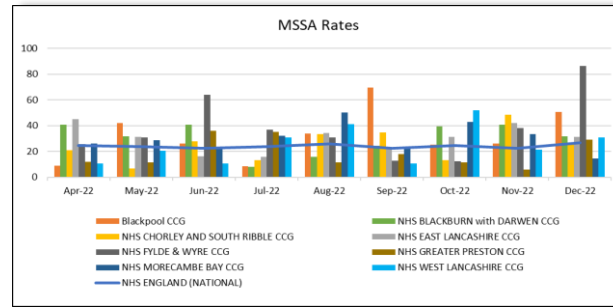
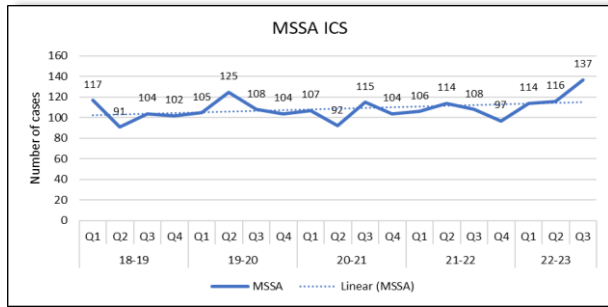
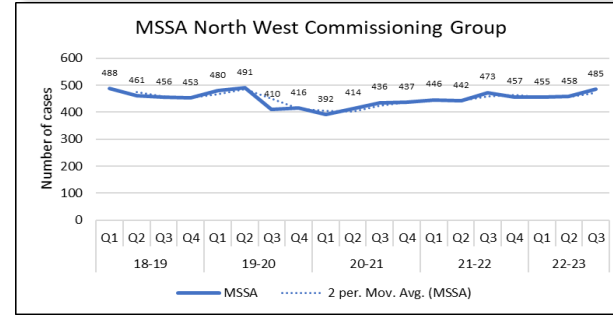
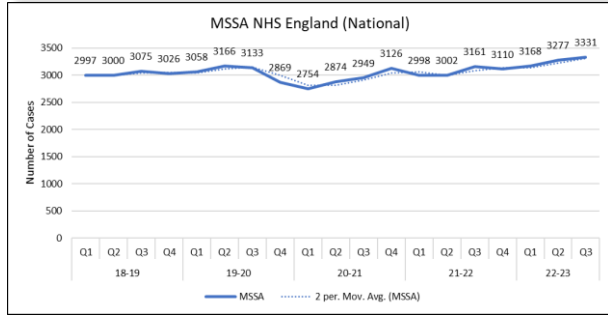
Clostridioides difficile infection (CDI)



CCG	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total	Objective to Date	Breach
BP CCG	5	3	9	5	9	16	10	3	5	65	64	2%
BwD CCG	4	5	4	1	2	2	8	2	1	29	26	10%
CSR CCG	4	12	13	14	16	13	13	6	6	97	50	93%
EL CCG	7	4	9	12	15	8	15	8	11	89	53	70%
FW CCG	10	10	9	15	11	12	6	11	7	91	65	39%
GP CCG	9	5	12	6	16	6	8	8	7	77	65	18%
MB CCG	11	17	18	19	22	15	18	22	7	149	110	36%
WL CCG	5	2	4	6	7	1	4	6	6	41	22	89%
Hospital onset	36	32	48	48	57	41	51	40	30	383		
Community Onset	19	26	30	30	41	31	31	26	20	254		
Total	55	58	78	78	98	73	82	66	50	638	455	40%
Cumulative Total	55	113	191	269	367	440	522	588	638	-		
previous year	32	81	142	184	240	288	329	376	420	-		
Change	72%	40%	35%	46%	53%	53%	59%	56%	52%	-		

Acute Trust	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total	Objective to Date	Breach
BTH	7	5	10	9	12	11	12	5	7	78	82	
ELHT	5	6	3	5	6	5	10	2	6	48	41	19%
LTH	15	11	21	20	20	16	15	15	11	144	92	57%
SOHT	5	2	7	3	5	5	3	5	5	40	37	9%
UHMB	4	8	8	13	11	8	12	13	2	79	63	25%
Total	36	32	49	50	54	45	52	40	31	389	314	24%
Cumulative Total	36	68	117	167	221	266	318	358	389	-		
previous year	34	73	117	152	196	236	271	306	332	-		
Change	6%	-7%	0%	10%	13%	13%	17%	17%	17%	-		

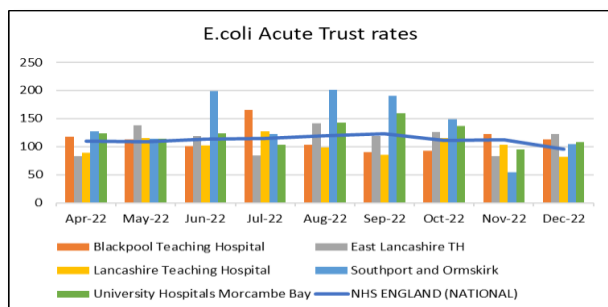
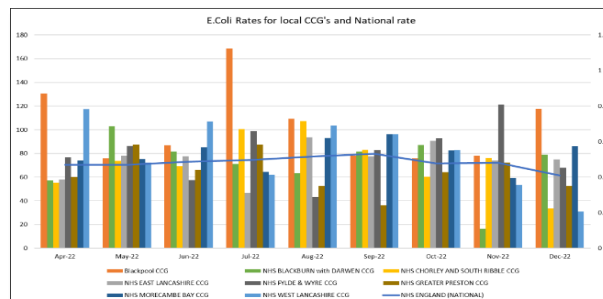
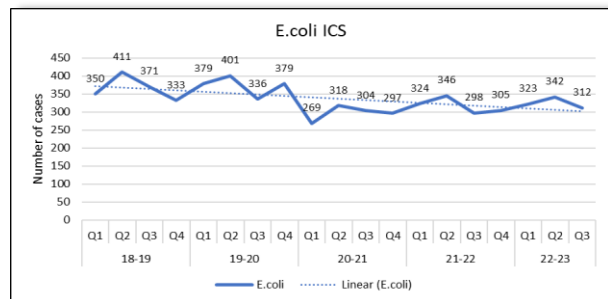
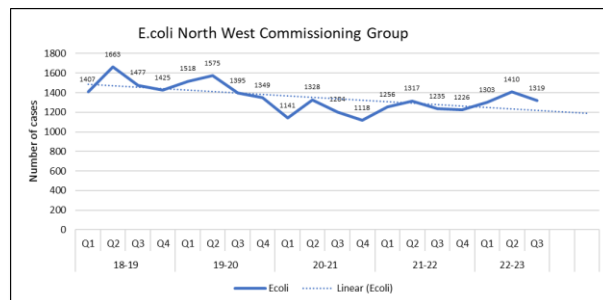
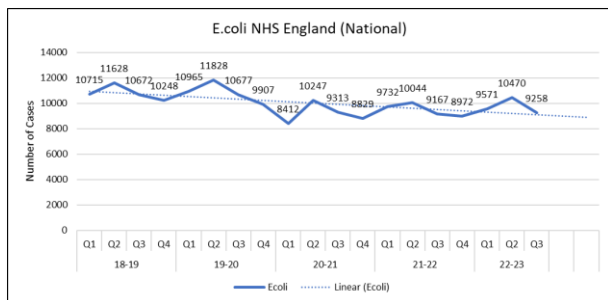
Meticillin Susceptible Staphylococcus Aureus (MSSA)



MSSA data	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total
BP CCG	1	5	3	1	4	8	3	3	6	34
BwD CCG	5	4	5	1	2	3	5	5	4	34
CSR CCG	3	1	4	2	5	5	2	7	4	33
EL CCG	14	10	5	5	11	8	10	13	10	86
FW CCG	4	5	10	6	5	2	2	6	14	54
GP CCG	2	2	6	6	2	3	2	1	5	29
MB CCG	7	8	6	9	14	6	12	9	4	75
WL CCG	1	2	1	3	4	1	5	2	3	22
Hospital onset	18	16	16	15	20	14	21	22	26	168
Community Onset	19	21	24	18	27	21	20	24	24	198
Total	37	37	40	33	47	36	41	46	50	367
Cumulative Total	37	74	114	147	194	230	271	317	367	-
Cumulative 21/22	23	66	106	147	186	220	262	288	327	-
Change from 21/22	61%	12%	8%	0%	4%	5%	3.44%	10.07%	12.23%	-

MSSA data	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total
BTH	2	5	4	1	2	3	2	6	13	38
ELHT	7	3	4	3	6	6	7	6	3	45
LTH	5	4	6	5	3	3	3	4	3	36
SOHT	2	4	2	1	5	1	3	6	2	26
UHMB	2	2	4	5	7	2	4	5	2	33
Total	18	18	20	15	23	15	19	27	23	178
Cumulative Total	18	36	56	71	94	109	128	155	178	-
Total 21/22	12	34	53	66	80	95	121	132	145	-
Change from 21/22	50%	6%	6%	8%	18%	15%	6%	17%	23%	-

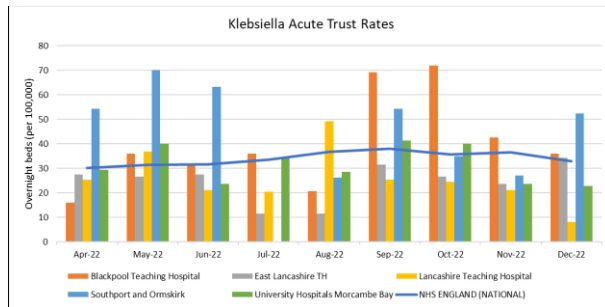
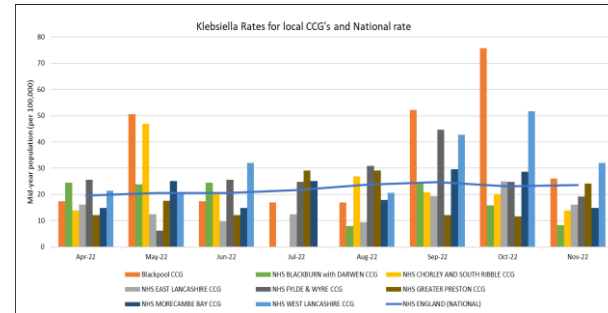
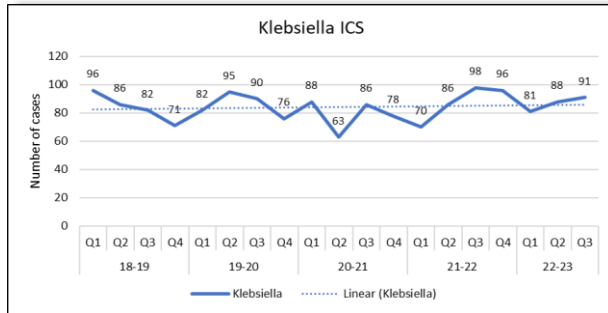
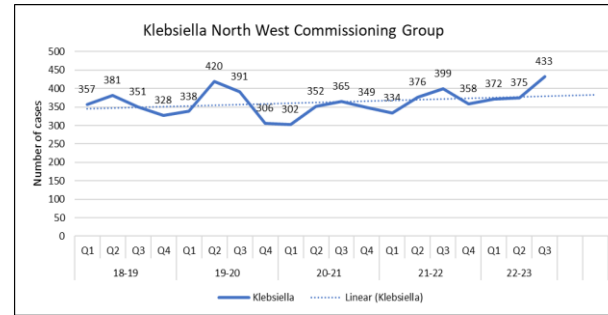
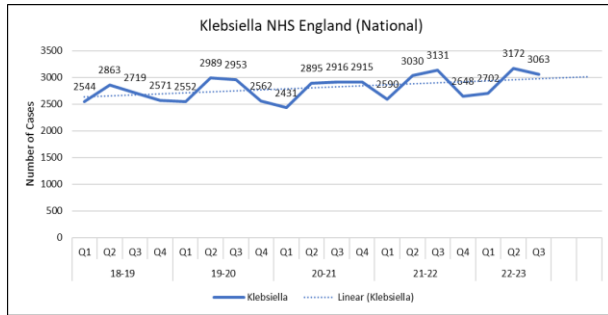
E.coli



E.Coli data	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total	Objective to Date	Breach
BP CCG	15	9	10	20	13	9	9	9	14	108	80	36%
BwD CCG	7	13	10	9	8	10	11	2	10	80	82	
CSR CCG	8	11	10	15	16	12	9	11	5	97	90	8%
EL CCG	18	25	24	15	30	24	29	23	24	212	206	3%
FW CCG	12	14	9	16	7	13	15	19	11	116	97	20%
GP CCG	10	15	11	15	9	6	11	12	9	98	96	2%
MB CCG	20	21	23	18	26	26	23	16	24	197	185	6%
WL CCG	11	7	10	6	10	9	8	5	3	69	65	6%
Hospital onset	35	48	44	36	43	37	44	41	40	368		
Community Onset	66	67	63	78	76	72	71	56	60	609		
Total	101	115	107	114	119	109	115	97	100	977	900	9%
Cumulative Total	101	216	323	437	556	665	780	877	977	-		
Cumulative 21/22	101	190	287	391	491	581	675	747	835	-		
Change 21/22	0%	14%	13%	12%	13%	14%	16%	17%	17%	-		

E.Coli Acute Trust	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total	Objective to Date	Breach
BTH	10	10	10	13	9	5	6	10	7	80	68	17%
ELHT	7	14	10	4	16	8	16	12	10	97	101	
LTH	6	14	12	12	5	2	12	7	11	81	84	
SOHT	5	3	5	2	8	5	3	0	6	37	38	
UHMB	7	9	9	3	10	17	9	10	9	83	77	8%
Total	35	50	46	34	48	37	46	39	43	378	368	3%
Cumulative Total	35	85	131	165	213	250	296	335	378	-		
Cumulative 21/22	46	81	125	168	217	262	302	346	387	-		
Change from 21/22	24%	5%	5%	-2%	-2%	-5%	-2%	-3%	-2%	-		

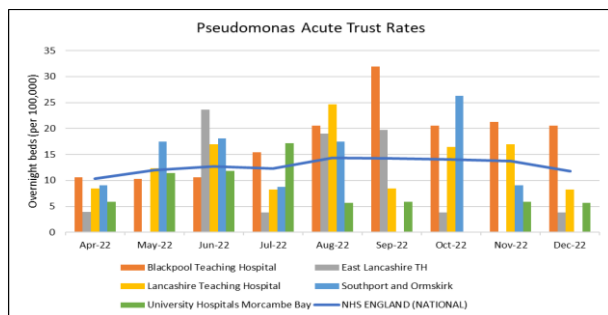
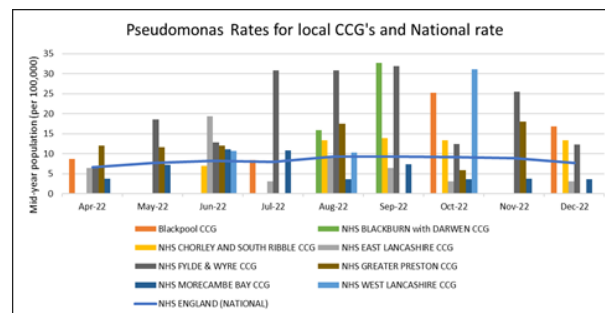
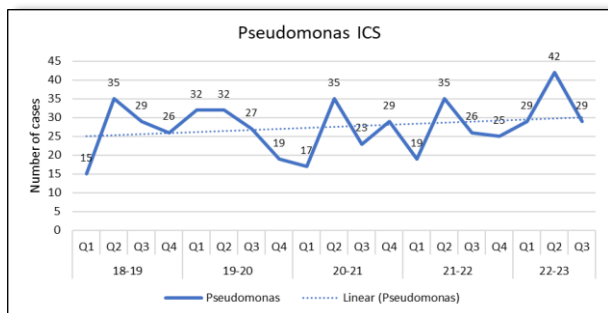
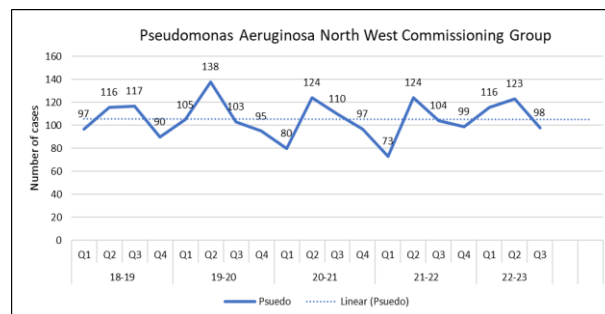
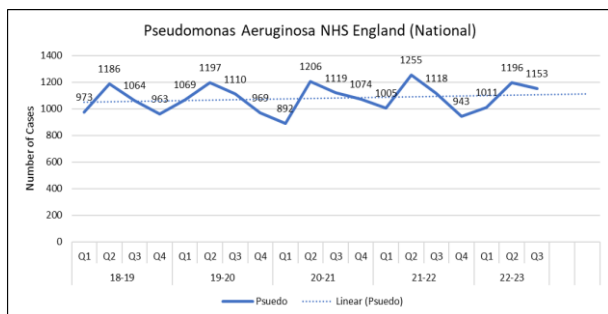
Klebsiella spp



Klebsiella CCG data	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total	Objective to Date	Breach
BP CCG	2	6	2	2	2	6	9	3	4	36	26	37%
BwD CCG	3	3	3	0	1	3	2	1	1	17	28	
CSR CCG	2	7	3	0	4	3	3	2	1	25	20	28%
EL CCG	5	4	3	4	3	6	8	5	9	47	43	10%
FW CCG	4	1	4	4	5	7	4	3	4	36	30	20%
GP CCG	2	3	2	5	5	2	2	4	1	26	28	
MB CCG	4	7	4	7	5	8	8	4	4	51	39	31%
WL CCG	2	2	3	0	2	4	5	3	1	22	15	47%
Hospital onset	13	11	12	7	11	17	23	14	11	119		
Community Onset	11	22	12	15	16	22	18	11	14	141		
Total	24	33	24	22	27	39	41	25	25	260	229	32%
Cumulative Total	24	57	81	103	130	169	210	235	260	-		
Cumulative 21/22	27	47	69	96	122	155	194	224	253	-		
Change 21/22	11%	21%	17%	7%	7%	9%	8%	5%	3%	-		

Acute Klebsiella data	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Total	Objective to Date	Breach
BTH	1	2	4	0	2	3	4	23	33	
ELHT	3	4	2	1	1	3	4	20	39	
LTH	4	1	0	0	1	4	0	11	20	
SOHT	4	2	3	3	4	3	5	29	13	127%
UHMB	2	2	3	3	4	3	5	27	16	71%
Total	14	11	12	7	12	16	18	110	120	
Cumulative Total	14	25	37	44	56	72	90	-		
Cumulative 21/22	17	25	37	60	76	96	118	-		
Change 21/22	-18%	0%	0%	-27%	-26%	-25%	-24%	-		

Pseudomonas Aeruginosa



Pseudo data	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total	Objective to Date	Breach
BP CCG	1	0	0	1	0	0	3	0	2	7	5	56%
BwD CCG	0	0	0	0	2	4	0	0	0	6	2	167%
CSR CCG	0	0	1	0	2	2	2	0	2	9	11	
EL CCG	2	0	6	1	3	2	1	0	1	16	11	52%
FW CCG	1	3	2	5	5	5	2	4	2	29	11	176%
GP CCG	2	2	2	0	3	0	1	3	0	13	7	93%
MB CCG	1	2	3	3	1	2	1	1	1	15	18	
WL CCG	0	0	1	0	1	0	3	0	0	5	6	
Hospital onset	2	6	10	6	9	9	7	3	3	55		
Community onset	5	1	5	4	8	6	6	5	5	45		
Total	7	7	15	10	17	15	13	8	8	100	69	45%
Cumulative Total	7	14	29	39	56	71	84	92	100	-		
Cumulative 21/22	4	10	19	27	42	54	62	68	80	-		
Change last year	75%	40%	53%	44%	33%	31%	35%	35%	25%	-		

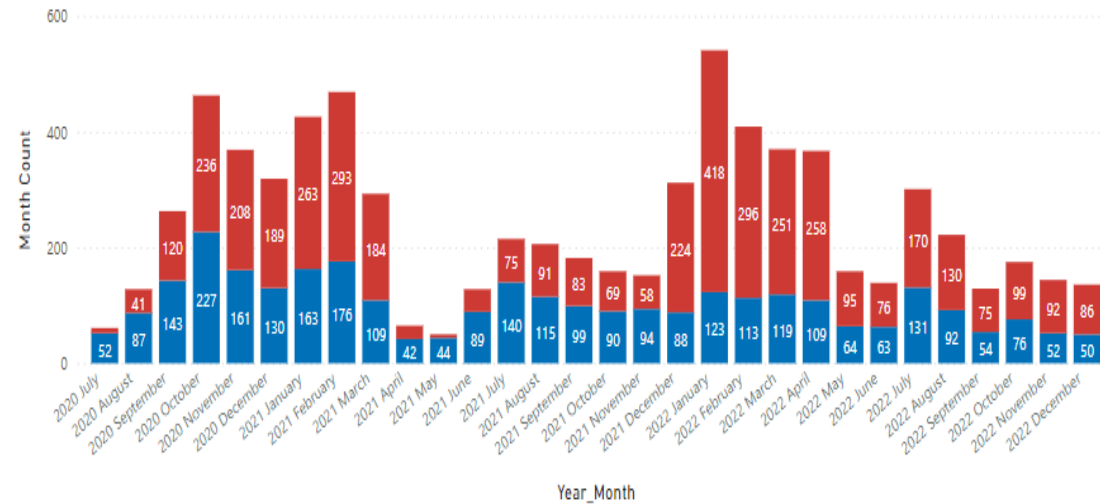
Pseudo acute data	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total	Objective to Date	Breach
BTH	0	0	3	0	4	4	1	0	0	12	14	
ELHT	0	2	3	2	2	0	2	2	1	14	5	167%
LTH	1	0	2	0	0	0	1	1	0	5	10	
SOHT	0	2	1	1	1	0	0	0	1	6	5	14%
UHMB	0	2	1	1	1	0	0	0	1	6	7	
Total	1	6	10	4	8	4	4	3	3	43	42	2%
Cumulative Total	1	7	17	21	29	33	37	40	43	-		
Cumulative 21/22	2	5	7	13	23	31	34	38	45	-		
Change last year	-50%	40%	143%	62%	26%	6%	9%	5%	-4%	-		

COVID-19

Number of active incidents and outbreaks within care settings in Lancashire and Blackburn with Darwen by month

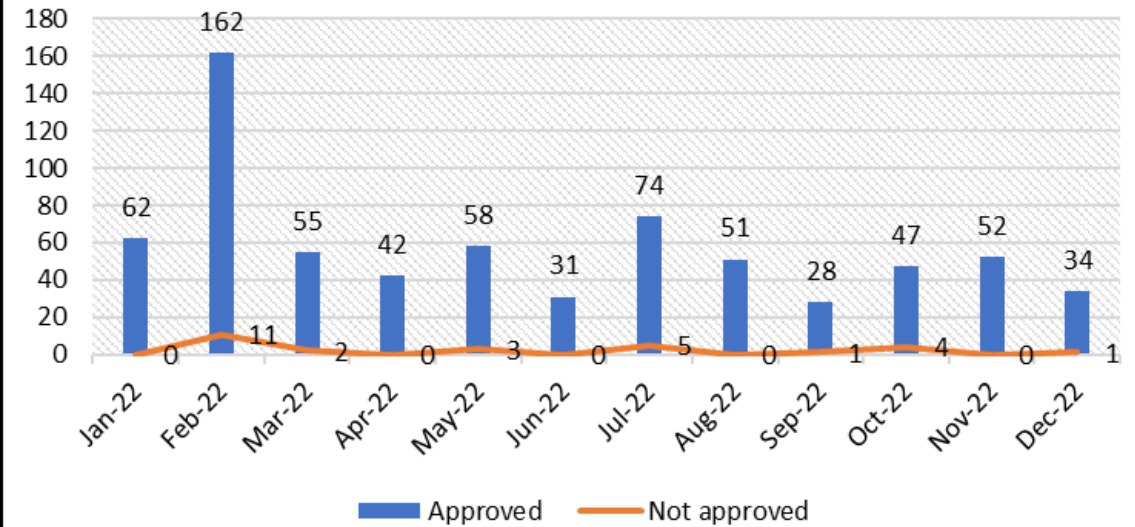
Number of outbreaks and incidents that were active in each month

case type ● Incident ● Outbreak



Risk assessments for admission (carried out to support admission to care homes when in COVID-19 outbreak)

Risk Assessments for Admission 2022



Outbreaks (non-COVID)

Outbreaks in care settings

	Q1		Q2		Q3	
Illness/ Infection	Outbreaks	Incidents	Outbreaks	Incidents	Outbreaks	Incidents
CDI	1	1				1
Influenza A	1				26	4
Norovirus	30		19	1	24	2
Scarlet Fever						1
Scabies	1		3	4	5	2
Pneumonia					1	



IPC work streams & observations

MRSA

- To date there have been 13 MRSA blood stream infections this year. Each case should be subject to a timely post infection review to allow for analysis of the themes and trends and to implement lessons learned. These reviews are becoming more difficult to complete, especially for community onset cases when input is required from multiple agencies.

COVID-19 response

- The IPC Team continue to provide support and advice to care providers. The team have handled 1,342 tasks on the Dynamics System relating to COVID-19 incidents and outbreaks in Q3, a decrease on Q2 (1,507 tasks).
- There were a total of 125 (216 Q2) incidents and 188 (225 Q2) outbreaks in Q3.
- There have been 5242 emails sent and received from/to the team mailbox in Q3, the majority of these related to COVID-19.



Forums

Social Care Infection Prevention Champions

The IPC team have held Social Care Infection Prevention Champions Forums. These have focussed on Urinary Tract Infections (UTIs) with the purpose of the forums to support attendees to expand their knowledge and give a greater understanding of UTI's and how it can help to reduce health care associated infections (HCAIs).

The expected outcomes of the forum were for attendees to know how to:

- perform good catheter care
- understand signs and symptoms of UTI's
- to be an advocate for their service users
- to be an antibiotic guardian
- promote the 'to dip or not to dip' initiative
- discuss implementing continence care pathways

Six sessions were delivered at six locations across Lancashire in October and November 2022. There were 80 attendees in total and 100% of the feedback rated the workshop as 'excellent' or 'good'.

The following comments were received.

- *"Really enjoyed this session - thank you!"*
- *"Very engaging"*

The slides from the forum have now been uploaded to the IPC website.

Fundamentals of IPC Forum

These forums are currently held every 6 weeks and are available for anyone working within a care setting to attend. They are aimed at new members of staff or staff wishing to complete a refresher session.

The aims of the sessions are for participants to

- Learn the basics of infection prevention and why they are required to stop the spread of infections
- Learn the standard precautions in relation to infection prevention
- Build upon knowledge of how infections can be prevented/controlled
- Understand the importance of breaking the chain of infection

Two sessions were held in Q3 with a total of 22 attendees

IPC work streams

Audits

27 care home audits were completed in Q3,

- 18 were rated as green
- 8 were rated amber
- 1 was rated as red

The team are working with the homes to create action plans to improve environmental and IPC standards within their homes. Feedback from care home audits has shown that although many homes have a nominated IPC Champion, they are often not attending IPC forums or engaging. Work is currently being done to promote the role of the IPC champions within care settings.

Other audits completed by the IPC team include

- 1 GP Practice
- 6 Eco nurseries (forest schools)
- 1 SEN School

Hand hygiene sessions

There were 15 hand hygiene sessions delivered at schools across Lancashire and BwD in Q3, 100% of the responses received rated the quality of the awareness session excellent or good.

Hydration Heroes project

A pilot has been developed to promote hydration for service users in care settings across the ICS. The pilot is targeting day centres and includes a presentation highlighting the benefits of hydration and risks of dehydration to help to reduce the number of UTIs.

Several resources have been developed and purchased to help promote hydration. If the pilot is successful, we aim to expand the sessions to the wider public and informal/ family carers via community venues.

There have been 3 sessions held in Q3, the first session was held in a Learning disabilities day centre, the second and third sessions were held in older people day centres. Feedback from the sessions that have taken place has been 100% excellent.

There are 4 more sessions due to take place in February.

IPC Quality Improvement Course

The IPC team have developed a course for care staff where they will be supported to identify an area for IPC improvement within their setting. They will then design, implement and manage a small pilot project with the help of two senior Infection Prevention Nurses.

There are 6 attendees from residential that started in October. 4 sessions have taken place so far and is due to be completed in February.



Horizon Scanning

Domiciliary Care Project

The Infection Prevention and Control (IPC) team are looking for ways to better support the domiciliary sector. Looking at the feedback from the IPC forums suggests these sessions are not tailored enough to people working out in the community. The IPC team is now starting a project to tailor resources and training, and find better ways to support the domiciliary sector. Meetings are being arranged with some providers so we can find out what IPC concerns/issues they have (if any) and see what policies and procedures are already have in place

Audits

The IPC team will be commencing IPC audits on LCC early years nurseries once the eco nurseries have been completed.

IPC Packages

The IPC team are planning to offer a range of chargeable specialised IPC care package for residential and nursing homes. The package will support settings to comply with the criteria set within the Health and Social Care Act 2008 for the Code of Practice for Infection Prevention. This is due to be rolled out in April 2023

Nutrition and Hydration Week

The IPC team are planning to deliver educational activities for residents of residential and nursing homes during the week 13th to 19th March.



Glossary

Infections under mandatory surveillance:

Clostridioides difficile (CDI)

Clostridioides difficile, formerly known as *Clostridium difficile*, is a spore-forming bacterium found in 3% of healthy people who are asymptomatic.

Clostridioides difficile infection (CDI) is the biggest cause of infectious diarrhoea in hospitalised patients and is caused by the production of toxins due to the disturbance of the normal intestinal flora, often from antibiotic treatment. Those at most risk of developing CDI includes the elderly and immunocompromised people.

Surveillance of *Clostridioides difficile* infections was introduced in 2004 for patients aged 65 years and over. This was extended to include all cases in patients aged 2 years and over in April 2007.

The NHS Standard Contract 2022/23 includes quality requirements for NHS Trusts to minimise rates of *Clostridioides difficile* infections.

Gram-negative bacteria

Gram-negative bacteria are bacteria that do not retain the crystal violet dye in the Gram stain protocol. The organisms are often resistant to many commonly used antibiotics.

The significant organisms are *Escherichia coli* (E. coli), *Klebsiella* spp., and *Pseudomonas aeruginosa*. Mandatory surveillance of *Escherichia coli* (E. coli) bloodstream infections was introduced in June 2011, following increases observed by UKHSA's voluntary surveillance and a recommendation from the Advisory Committee on Antimicrobial Prescribing, Resistance and Healthcare Associated Infection (APRHA). In April 2017, *Klebsiella* spp. and *Pseudomonas aeruginosa* bacteraemia were also added.

This mandatory surveillance supports the Government's ambition to reduce the number of Gram-negative bloodstream infections by 50% by the end of the financial year 2023 to 2024.

Escherichia coli

Escherichia coli cause a range of infections including urinary tract infections and bloodstream infections.

***Klebsiella* species**

Klebsiella species (spp.) belong to the Enterobacteriaceae family. They are commonly found in the environment and in the human intestinal tract (where they do not normally cause disease). These species can cause a range of healthcare-associated infections, including pneumonia, bloodstream infections, wound or surgical site infections and meningitis.

Pseudomonas aeruginosa

Pseudomonas aeruginosa (P. aeruginosa) is often found in soil and ground water. It causes a wide range of infection in those with a weakened immune system, such as, those with cancer and diabetes. In hospitals, the organism can contaminate devices that are left inside the body, such as respiratory equipment and catheters. It is sometimes associated with contaminated water.

Staphylococcus aureus

Staphylococcus aureus (S. aureus) is a bacterium that commonly colonises human skin and mucosa without causing any problems. If the bacteria have an opportunity to enter the body (medical device/broken skin) they can cause disease such as skin and wound infections, joint infections, pneumonia and blood stream infections.

Most strains of S. aureus are sensitive to the more commonly used antibiotics, and infections can be effectively treated. There are two types of S. aureus strains:

Meticillin susceptible *Staphylococcus aureus* (MSSA) is a strain of *Staphylococcus aureus* that is sensitive to the antibiotic methicillin.

Meticillin resistant *Staphylococcus aureus* (MRSA) is a strain of *Staphylococcus aureus* that is resistant to the antibiotic methicillin. MRSA infections often require different types of antibiotics to treat them.

There is a zero tolerance for MRSA bloodstream infections. There was a considerable decrease in the rate of reported MRSA blood stream infections following the introduction of mandatory surveillance in April 2007 until 2014. The rate has remained stable since then.

MRSA and MSSA only differ in their degree of antibiotic resistance: other than that, there is no real difference between them.

Terms:

BSI - Blood stream infection/bacteraemia is an invasion of the bloodstream by bacteria. This may occur through a wound or infection, or through a surgical procedure or injection.

COCA - Community-onset, community associated.

- **COHA** - Community-onset, healthcare associated.
- **COIA** - Community-onset, indeterminate association.
- **DCS** - Data Capture System. Web-based system where patient-level mandatory surveillance data is collected.
- **HCAI** - Healthcare associated infections.
- **HOCA** - Hospital-onset, community acquired.
- **HOHA** - Hospital-onset, healthcare acquired.
- **PIR** - Post Infection Review. The aim of the PIR process is to help identify any critical points and contributory factors leading to certain infections or outbreaks.
- **Trajectory** - Trusts are required under the NHS Standard Contract 2022/23 to minimise rates of both CDI and of Gram-negative bloodstream infections. Each NHS Trust and former CCG have their own trajectory. For CDI infections this is referred to as

