

**ANNUAL INFECTION PREVENTION  
AND CONTROL REPORT  
1 APRIL 2021 TO 31 MARCH 2022**

**May 2022**

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# ANNUAL INFECTION, PREVENTION AND CONTROL REPORT

## 1 APRIL 2021 to 31 MARCH 2022

### 1 EXECUTIVE SUMMARY

- 1.1 The Director of Infection Prevention and Control (DIPC) Annual Report provides a summary on Infection Prevention and Control activities within Somerset Clinical Commissioning Group (CCG) from 1 April 2021 to 31 March 2022.
- 1.2 The report covers Infection Prevention and Control (IPC) Commissioned Services, Somerset NHS Foundation Trust, Yeovil District Hospital NHS Foundation Trust, Weston General Hospital NHS Trust, and Practice Plus Group (Shepton Mallett), Primary, Secondary and Independent Care Providers.
- 1.3 The CCG continues to work collaboratively across the system with several agencies as part of its IPC and governance, which takes a zero-tolerance approach towards all avoidable Healthcare Associated Infections (HCAs). To ensure best practise is maintained and consistently applied, the CCG IPC and Quality Teams met regularly with providers to gain assurance that all patients and residents are receiving safe and effective care.
- 1.4 The CCG participated in the national mandatory surveillance reporting of the following organisms to UK Health Security Agency (UKHSA) portal:
- Methicillin-resistant *Staphylococcus aureus* (MRSA) Bacteraemia
  - Methicillin-sensitive *Staphylococcus aureus* (MSSA) Bacteraemia
  - *Clostridioides difficile* infection
  - *Escherichia coli* Bacteraemia
  - *Klebsiella* species Bacteraemia
  - *Pseudomonas aeruginosa* Bacteraemia
- 1.5 In 2021 the attribution categories for HCAs in the NHS England (NHSE) Standard Contract 2021-22 Technical Guidance document were amended, in relation to the attribution of blood stream infections (BSIs). Previously the definitions for BSI attributions were Pre and Post, where a case was considered Trust attributed (hospital onset) where the specimen was taken more than 48 hours after admission. The new definitions include an additional category for Trust attributed cases of Community-Onset Healthcare Associated (COHA) which is based on prior Trust admission within the preceding 28 days. All cases where there has been no prior admission within the preceding 28 days are classified as Community-onset Community Associated (COCA).
- 1.6 The wording of the existing attribution categories for *C. diff* was also updated and has resulted in possible discrepancies with allocation which continues to be investigated by NHSE. Due to this we have continued to

attribute cases based on the original definitions listed in section 7 below (NHSE aware).

- 1.7 As a result of the on-going COVID-19 pandemic significant challenges continued across the health and social care system, impacting the ability to deliver the IPC Strategy and Annual Work Plan to address HCAs and Somerset CCG's priorities.

## **2 RECOMMENDATIONS**

- 2.1 The Governing Body is asked to Endorse the Infection Prevention and Control Annual Report for 2021-22.

## **3 INFECTION PREVENTION AND CONTROL GOVERNANCE MONITORING AND ASSURANCE**

- 3.1 The Somerset CCG Governing Body of Directors work collectively within the Governance Framework to seek assurance that high quality care and safe services continue for patients, visitors and staff to prevent and minimise the risk of infection.
- 3.2 Overall responsibility for IPC is held by the CCG Accountable Officer with the DIPC providing strategic direction and leadership for IPC. The DIPC role is undertaken by the Director of Quality and Nursing supported by the Deputy Director of Quality and Nursing to deliver the annual IPC report, Strategy and Annual Work Plan to the CCG Governing Body based on national and local quality objectives. The DIPC and Deputy Director of Quality & Nursing are supported by Consultant Microbiologists, IPC Team and Quality and Patient Safety Team.

### **The Somerset Infection Prevention, Control and Antimicrobial Assurance Committee (SIPAAC)**

- 3.3 SIPAAC meets quarterly and receives IPC and Antimicrobial Resistance (AMR) assurance reports and updates from across the system, which includes Somerset NHS Foundation Trust, Yeovil District Hospital NHS Foundation Trust, Weston General Hospital NHS Trust, Practice Plus Group (Shepton Mallet) and independent providers as required.
- 3.4 SIPAAC's key role is to ensure that effective systems and processes are in place to reduce the risk of HCAs, providing assurance of such to the board. As part of the governance and assurance framework, a monthly IPC report is submitted to the Patient Safety and Clinical Quality Committee (PSQ&AC), the Quality and Nursing Operational Meeting, and the Primary Care Operational Group (PCOG). SIPAAC is also responsible for the strategic planning and monitoring of providers' IPC programmes.

## **4 MANAGEMENT OF THE SARSCOV-2 PANDEMIC**

- 4.1 The SARSCOV-2 pandemic continued to significantly impact the delivery of the IPC Strategy and Annual Work Plan due to emergence of the Delta and Omicron variants.
- 4.2 During 2021-22 the Emergency Planning Team continued to conduct daily operational and strategic meetings, responding to the on-going pandemic,

and the IPC Team acted to support the incidence response, diverting resources across the system as required.

4.3 The CCG works in agreement with the Somerset Memorandum of Understanding (MOU) (2020) that outlines how key partners work together to reduce morbidity and mortality associated with outbreaks. The CCG team worked closely with Somerset Public Health Team, Public Health England (South West), UKSHA and Primary and Secondary care providers communicating the infection prevention and control messages and engaging with Primary and Secondary care providers to apply national guidance to protect the population against transmission of the virus.

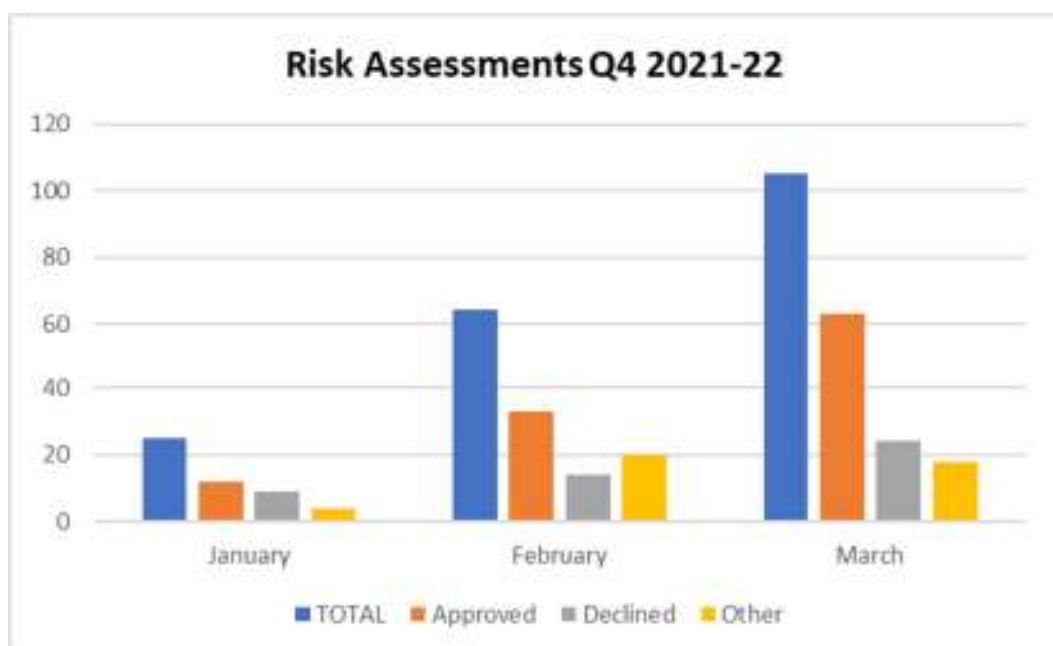
4.4 Preventing and controlling the spread of COVID-19 remained the CCG IPC priority throughout 2021-2022. The support to Primary and Secondary care providers continued in the form of regular phone calls, meetings, visits and constantly reviewing the situation on the ground, and advising on required actions to minimise or prevent the spread of infections.

4.5 During quarter 4, in response to the emergence of the Omicron variant and enable the timely flow of acutely unwell patients into secondary care, a COVID-19 discharge risk assessment was developed in collaboration with all system providers due to sustained system pressures. This was to facilitate the safe discharge of patients who had been exposed / contact / positive to COVID-19 or returning to a provider with an on-going COVID-19 outbreak.

4.6 A total of 194 risk assessments were carried out by the CCG IPC Team during quarter 4, 108 of which were approved. Of the 47 risk assessments that were formally declined, the majority of these (66%) were declined by the care home, with a further 17% declined by Public Health.

4.7 The graph below shows the breakdown of risk assessment activity during quarter 4.

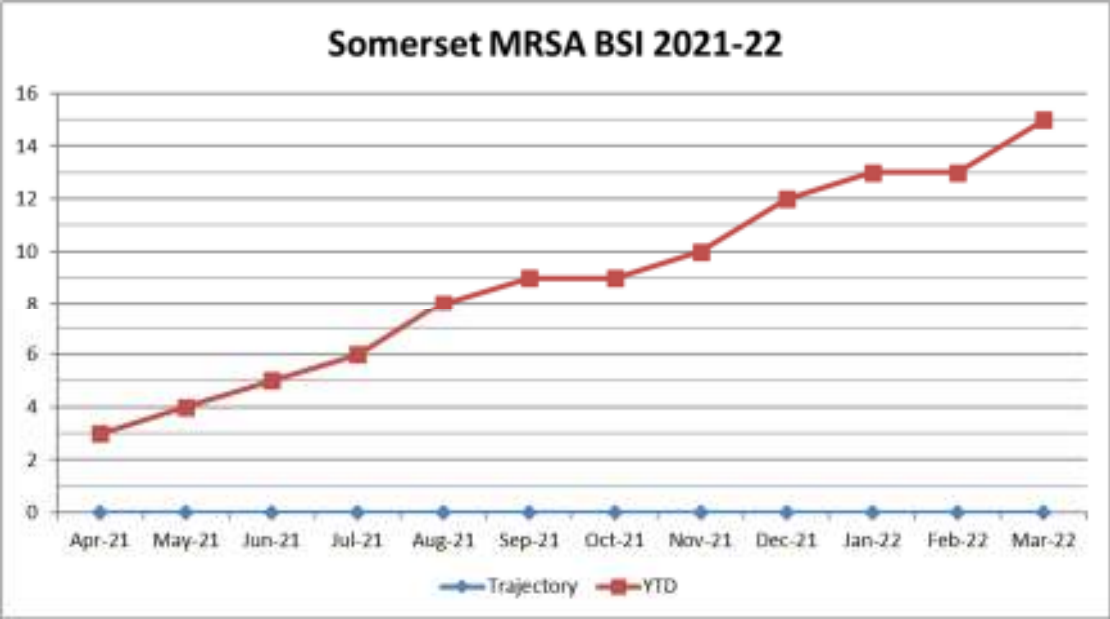
4.8 Chart 1



**5 METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA) BLOOD STREAM INFECTIONS (BSIS)**

5.1 Methicillin-Resistant *Staphylococcus aureus* is a bacterium commonly found colonising the skin and mucous membranes of the nasal and throat passages which has developed a resistance to the methicillin group of antibiotics. The majority of people carry this organism with no detriment to their health, however MRSA can cause a wide range of infections, such as skin infections, and has the potential to develop into a blood stream infection (BSI).

5.2 Chart 2: MRSA BSI numbers 2021-22 against zero tolerance trajectory.



5.3 MRSA BSIs in both Primary and Secondary Care are subject to a thorough post infection review (PIR) which is presented and discussed across the system involving clinicians, Microbiologists, IPC teams and allied health professionals. Any learning identified is documented on the PIR and actioned by the relevant individual/team within that organisation.

5.4 Learning/Themes Identified during PIR process and actions taken are shown in Table 1 below:

5.5 Table 1: Learning/Themes identified for MRSA BSIs 2021-22

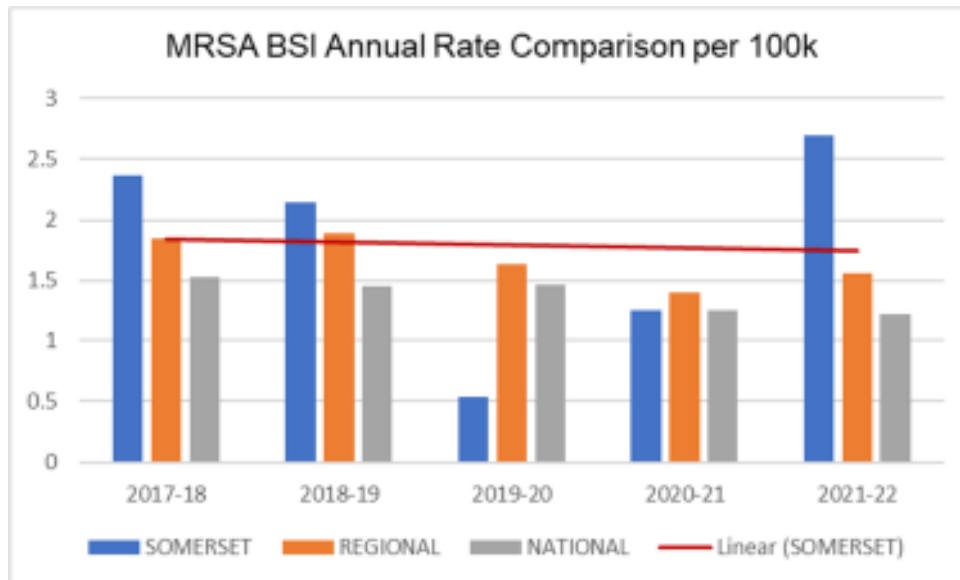
Learning Identified	Actions Taken
Delay in topical decolonisation	Discussed and addressed with medical and nursing teams
Difficulty in following up patients registered as homeless	inform Somerset Public Health any BSI cases that are identified as being homeless
Missed screening opportunity	Introduced a screening process
Completion of Documentation	Staff education/training
Hand Hygiene	Staff education/training

Issues with antibiotic prescribing	Discussed and addressed with medical teams
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5.6 During 2021-22 there has been an increase in MRSA BSIs across the system and after investigation it was identified that the majority of these were in people who inject drugs and/or were homeless. Somerset CCG is working collaboratively across the system to identify processes and quality improvement work to help reduce MRSA BSIs within this patient group.

5.7 The total MRSA rate for Somerset CCG per 100,000 population for 2020/21 was 2.65. This was the 2nd highest rate regionally compared to the other eight CCGs in the Public Health England South West reporting region. It was higher than both the regional rate of 1.56 and the national average of 1.21. A year-on-year comparison of MRSA BSI rates per 100,000 population is shown in Chart 3 below.

Chart 3: MRSA BSI Year on Year Rates per 100k



5.8 The breakdown of attribution status of MRSA BSIs for 2021-22 is showing in Table 2 below.

5.9 Table 2: MRSA BSI Attribution Status 2021-22

Attribution Status	No. of cases 2021/22
Hospital-Onset Healthcare Associated	4
Community-Onset Healthcare Associated	6
Community-Onset Community Associated	5
<b>TOTAL</b>	<b>15</b>

5.10 The breakdown of MRSA BSIs by Organisation is shown in Table 3.

Table 3: MRSA BSI Breakdown by Organisation 2021-22

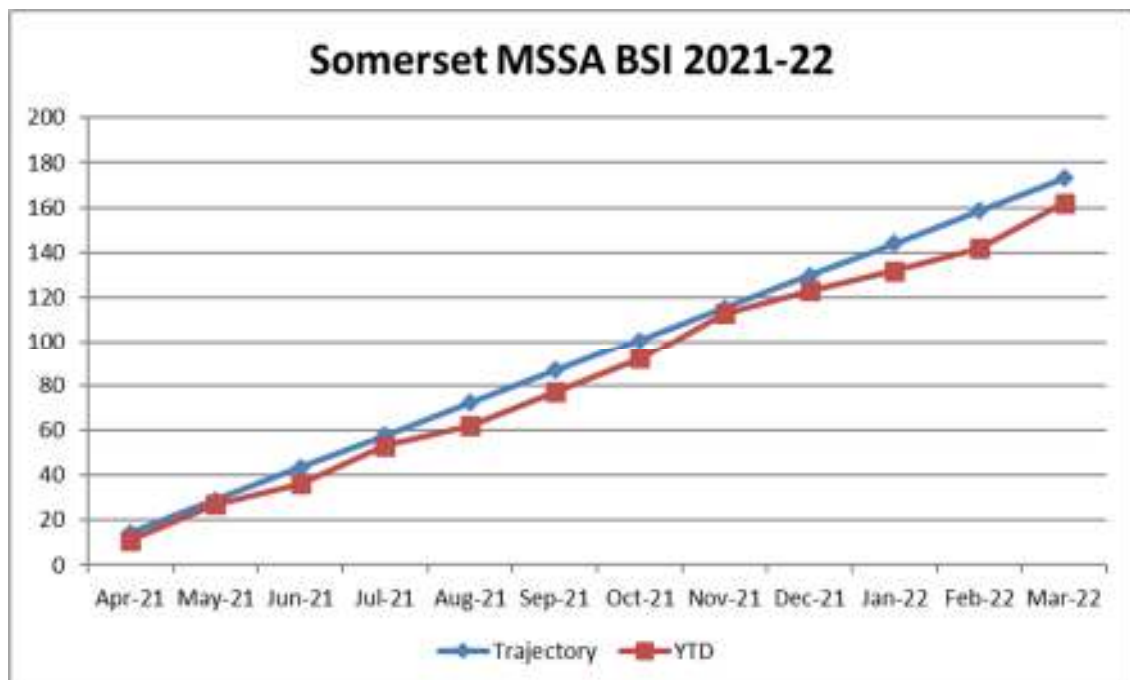
Health Care provider	No. of cases 2021/22	Trajectory
Somerset CCG Primary Care	5	0
Somerset NHS Foundation Trust	5	0
Yeovil District Hospital NHS Foundation Trust	2	0
Weston general hospital NHS Trust (non-Somerset patients)*	2*	0
Royal United Hospital NHS Foundation Trust (non-Somerset patients)*	1*	0
<b>TOTALS</b>	<b>15</b>	<b>0</b>

\* Somerset CCG area cases only

## 6 METHICILLIN-SENSITIVE *STAPHYLOCOCCUS AUREUS* (MSSA) BLOOD STREAM INFECTION (BSI)

6.1 Methicillin-sensitive *Staphylococcus aureus* is a bacterium commonly found colonising the skin and mucous membranes of the nasal and throat passages which is sensitive to the methicillin group of antibiotics. The majority of people carry this organism with no detriment to their health, however MSSA can cause a wide range of infections, such as skin infections, and has the potential to develop into a blood stream infection (BSI). No official trajectory was received for MSSA BSI in 2021-22. Chart 4 below shows performance against an internal trajectory set using NHSEI methodology.

6.2 Chart 4: MSSA BSI numbers 2021-22 against internal trajectory



6.3 MSSA BSIs in Secondary Care are subject to a post infection review (PIR) which is discussed across the system involving clinicians, Microbiologists, IPC teams and allied health professionals. Any learning identified is



documented on the PIR and actioned by the relevant individual/team within that organisation. All MSSA BSI cases are reviewed at the CCG quarterly Peer Review meetings.

6.4 Learning/Themes Identified during PIR process and actions taken are shown in Table 4 below:

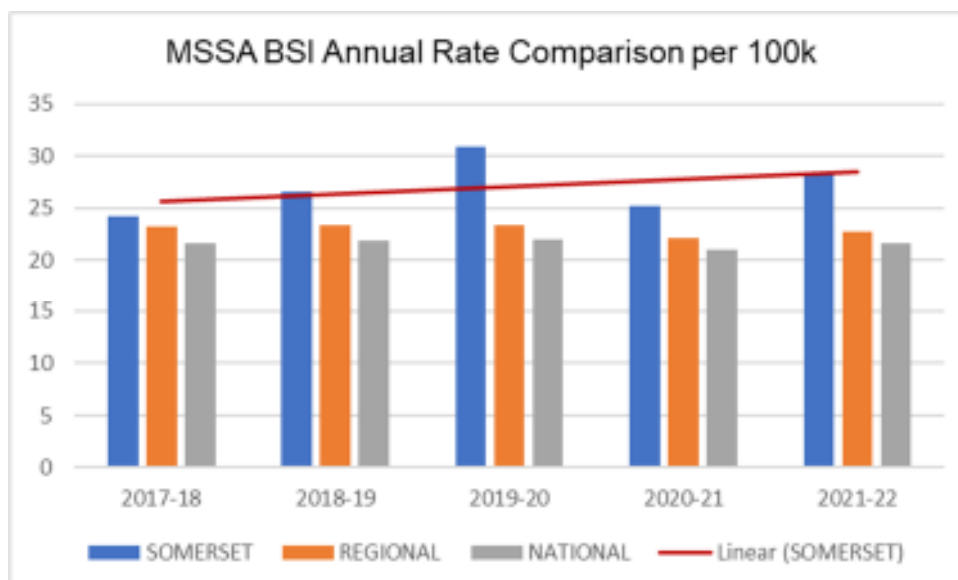
6.5 Table 4: Learning/Themes identified for MSSA BSIs 2021-22

Learning Identified	Actions Taken
Management of indwelling devices	Indwelling devices highlighted at safety brief and handover. Introduction of PVC huddles and PVC champion. Cannula audit. PVC improvement group Trust wide. Staff education and training including staff on unit's concerned receiving documentation via email regarding PVC care & documentation.

6.6 During 2021-22 there has been an increase in MSSA BSIs across the system and after investigation it was identified that the majority of these were associated with line infections related to the care of indwelling devices. Somerset CCG is working collaboratively across the system to identify processes to reduce MSSA BSIs within this patient group. Improved cannula care was also a quality improvement project for YDH but has been temporarily paused due to capacity of the IPC team but hoping to re-start in 2022/23.

6.7 In 2020-21, the rate for MSSA bloodstream infections per 100,000 population was 28.47. This was the 2nd highest rate of the nine CCGs in the South West region and was an increase from the previous year's position of 3<sup>rd</sup> highest. The rate was higher than the regional average (22.72) and national average (21.70), both of which were increases on the previous year. The acute providers carried out post infection reviews on all Trust attributed cases, and the main learning is the need to improve management of in-dwelling devices. The CCG IPC team plans to carry out a deep dive into community onset cases. A year-on-year comparison of MSSA BSI rates per 100,000 population is shown in Chart 5 below.

Chart 5: MSSA BSI Year on Year Rates per 100k



6.8 The breakdown of attribution status is shown in Table 5 below.

Table 5: MSSA BSI Attribution Status 2021-22

Attribution Status	No. of cases 2021/22
Hospital-Onset Healthcare Associated	57
Community-Onset Healthcare Associated	11
Community-Onset Community Associated	94
<b>TOTAL</b>	<b>162</b>

6.9 The breakdown of MSSA BSIs by Organisation is shown in Table 6:

6.10 Table 6: MSSA BSI Breakdown by Organisation 2021-22

Health Care provider	No. of cases 2021/22
Somerset CCG Primary Care	94
Somerset NHS Foundation Trust	41
Yeovil District Hospital NHS Foundation Trust	11
Weston general hospital NHS Trust (Somerset patients)	3*
Royal United Hospital NHS Foundation Trust (Somerset patients)	3*
<b>TOTAL</b>	<b>162 **</b>

\* Somerset CCG area cases only

\*\* including 10 hospital onset cases declared by Trusts outside Somerset CCG area

## 7 CLOSTRIDIODES DIFFICILE (C. DIFF)

7.1 C. diff is a bacterium that causes diarrhoea which is often associated with the use of antibiotics. Other risk factors for C. diff include proton pump inhibitors, use of laxatives, medication and bowel procedures, and those aged 65 and over with the presence of co-morbidities such as malignancy, diabetes, kidney and liver disease and immunosuppression from treatment.

7.2 During 2021-22 the attribution definitions were modified as below, with the key difference being the use of the term “after admission and” in relation to specimen date and prior Trust admission:

- Hospital-onset healthcare-associated: Date of onset is greater than 2 days after admission (where day of admission is day 1).
- Community-onset healthcare-associated: Date of onset is less than or equal to 2 days after admission **and** the patient was admitted to the trust in the 4 weeks prior to the current episode.
- Community-onset indeterminate association: Date of onset is less than or equal to 2 days after admission **and** the patient was admitted in the previous 12 weeks, but not the previous 4 weeks prior to the current episode.
- Community-onset community-associated: Date of onset is less than or equal to 2 days after admission **and** the patient had not been admitted to the trust in the previous 12 weeks prior to the current episode.

7.3 However, due to the discrepancy issue mentioned in point 1.6 above, the Somerset system has continued to apply the original definitions as shown below:

**Acute providers:**

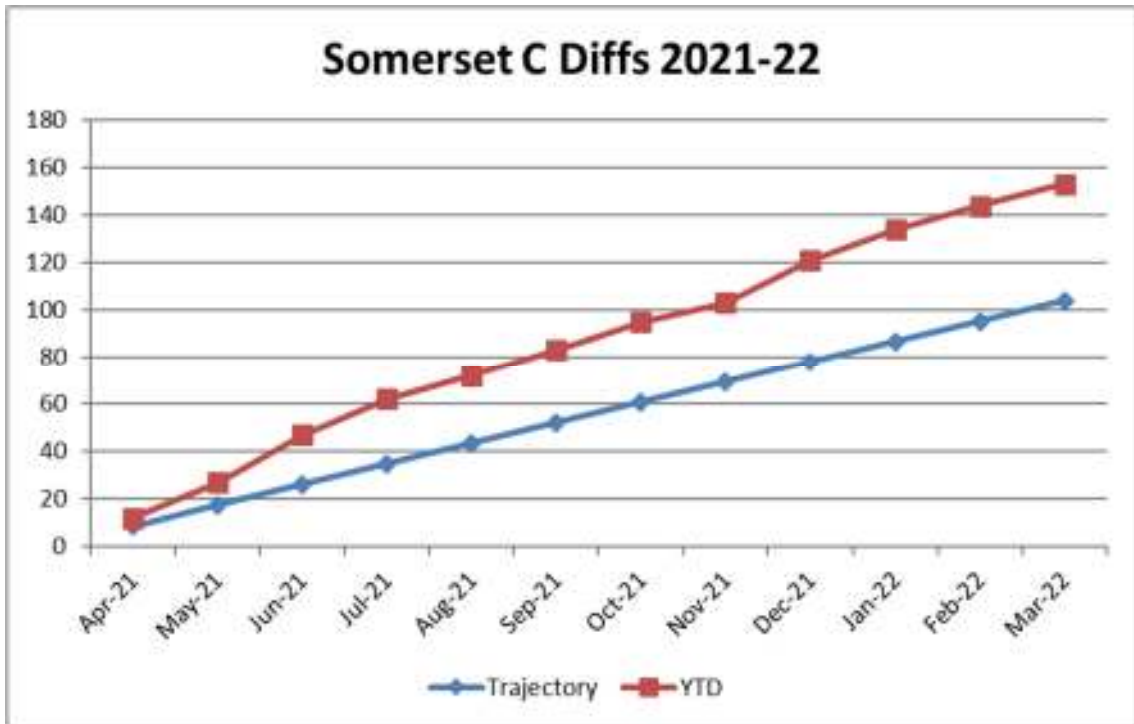
- Hospital onset healthcare associated (HOHA): cases that are detected in the hospital two or more days after admission.
- Community onset healthcare associated (COHA): cases that occur in the community (or within two days of admission), when the patient has been an inpatient in the trust reporting the case in the previous four weeks.

**Community**

- Community onset indeterminate association (COIA): cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust reporting the case in the previous 12 weeks but not the most recent four weeks.
- Community onset community associated (COCA): cases that occur in the community (or within two days of admission), when the patient has not been an inpatient in the trust reporting the case in the previous 12 weeks.

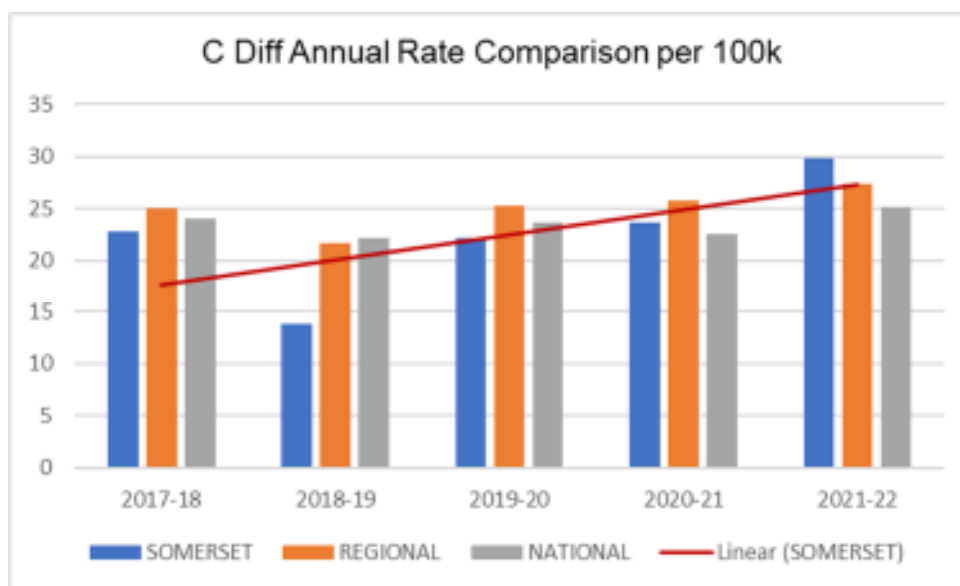
7.4 C. diff case numbers for 2021-22 against official trajectory are shown in Chart 6 below.

Chart 6: C. diff numbers 2021-22 against trajectory



7.5 The overall C. diff rate for Somerset CCG per 100,000 population for 2020/21 was 27.4. This was the 2nd lowest rate in the region - lower than the South West regional average of 29.85 but slightly higher than the national average of 25.17. A year-on-year comparison of C. diff case rates per 100,000 population is shown in Chart 7 below.

7.6 Chart 7: C. diff Year on Year Rates per 100k



7.7 The breakdown of attribution status of C. diff cases for 2021-22 is showing in Table 8 below

7.8 Table 8: C. diff Attribution Status 2021-22

Attribution Status	No. of cases 2021/22
Hospital-Onset Healthcare Associated	53*
Community-Onset Healthcare Associated	28*
Community-Onset Indeterminate Association	18
Community-Onset Community Associated	55
<b>TOTAL</b>	<b>154*</b>

\* including 8 Trust attributed cases declared by Trusts outside Somerset CCG area

7.9 The breakdown of C. diff cases by Organisation is shown in Table 9.

Table 9: C. diff numbers Breakdown by Organisation 2021-22

Health Care provider	Year end figures 2021/22	Trajectory for 2021/22
Somerset CCG Primary Care	72	64
Somerset NHS Foundation Trust	44	24
Yeovil District Hospital NHS Foundation Trust	17	16
Royal United Hospital NHS Foundation Trust	5*	-
Weston General hospital NHS Trust	7*	-
<b>TOTAL</b>	<b>153</b>	<b>104</b>

\* data relates to Trust attributed cases for 2021-22 for Somerset patients only. Total includes 8 Trust attributed cases declared by Trusts outside Somerset CCG area

7.10 C. diff infections in Secondary Care are subject to a post infection review (PIR) which is discussed across the system involving clinicians, Microbiologists, IPC teams and Pharmacists. Any learning identified is documented on the PIR and actioned by the relevant individual/team within that organisation. All C. diff cases are reviewed at the CCG quarterly Peer Review meetings.

7.11 At the end of quarter 2 a more robust PIR process was introduced for community onset C. diff infections involving the IPC Team, Primary Care, CCG Antimicrobial Pharmacist and representatives from the Quality Team. Any learning identified is actioned by the relevant individual/team within the CCG and is disseminated back to Primary Care.

7.12 Learning/Themes Identified during the C. diff PIR process and actions taken are shown in Table 10 below:

7.13 Table 10: Learning/Themes identified for C. diff cases 2021-22

Learning Identified	Actions Taken
Completion of documentation	Staff education/training

Hand Hygiene compliance	Staff education/training. Increased hand hygiene audits
Failure to isolate promptly	Staff education/training
Samples not sent in a timely manner	Staff education/training
Delay in reporting of result by the Lab	Implementation of a more robust system for reporting C. diff diagnosis to Microbiologists
Antimicrobial prescribing	Discussed and addressed with medical teams involved.
Access to timely antimicrobial prescriptions for confirmed primary care C. diff cases	Discussed and addressed with community pharmacists with the assistance of Medicines management to ensure that all community pharmacists' stock correct antimicrobials. Pathway's in place to ensure access and delivery of antimicrobials in a timely manner

7.14 Due to the national increase of C. diff infections identified in 2020-21, NHS England and NHS Improvement (NHSEI) implemented a regional HCAI CDI Collaborative initiative to expand on the data capture regarding risk factors and co-morbidities with the aim of gaining a better understanding of potential drivers behind the on-going increase. This work has been put on hold regionally due to the emergence of the Omicron variant to allow IPC Teams to respond and focus on the pandemic. This work is due to restart for 2022-23.

## 8 GRAM-NEGATIVE BLOOD STREAM INFECTIONS (GNBSIS)

8.1 Gram-negative bacteria cause infections including pneumonia, BSIs, wound and urinary tract infections (UTIs). These bacteria are increasingly resistant to multiple drugs including antibiotics.

8.2 In 2021-22 NHS England mandated for the first time that the following gram-negative BSI organisms would be assigned official objectives:

- Escherichia coli (E. coli)
- Klebsiella species
- Pseudomonas aeruginosa

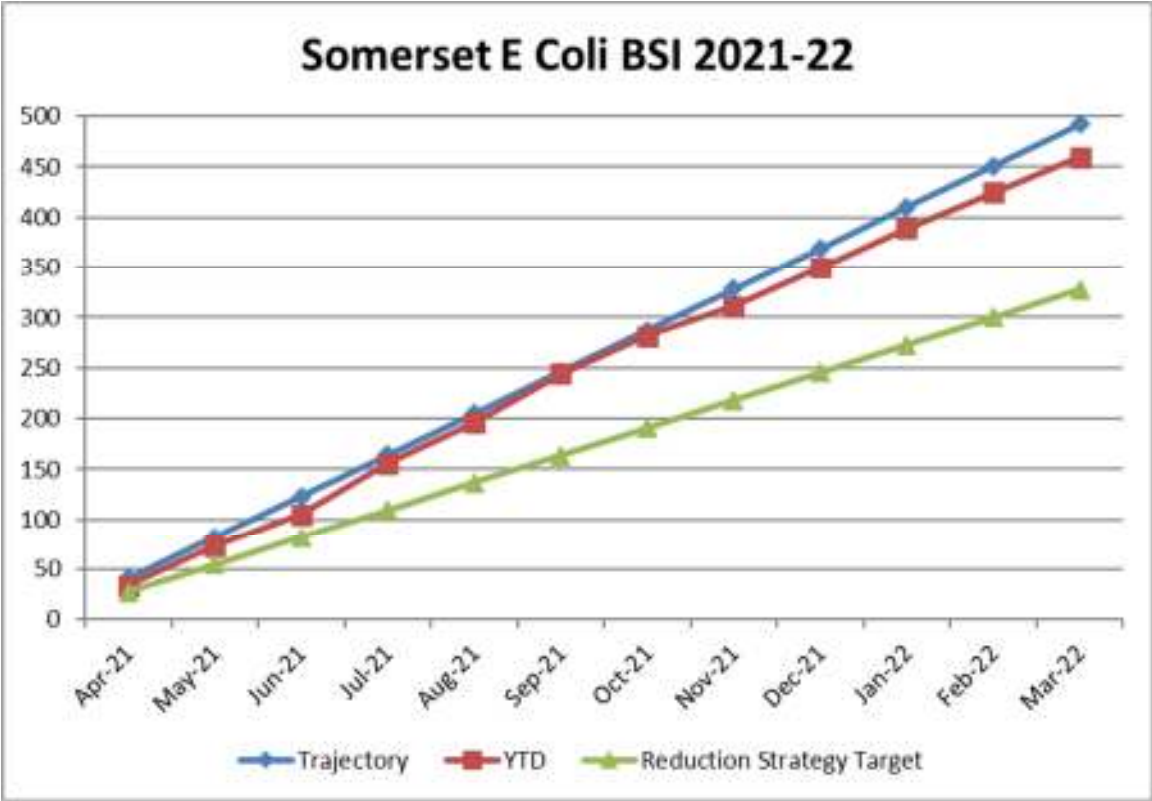
8.3 In 2017, the government set an ambition of reducing healthcare associated GNBSIs by 50% across the whole healthcare economy by March 2021. This was subsequently extended to 2023/24 as it was recognised this presented a significant challenge given that 80% of cases have a community onset. The GNBSI reduction plan is included in the CCG IPC Annual Work Plan, but progress has been limited due to the continued requirement to focus resources on management of the COVID-19 pandemic.

8.4 In 2021-22 GNBSIs accounted for 78.6% of all BSIs in Somerset.

### Escherichia Coli (E. coli)

- 8.5 Often referred to as E. coli, this organism is part of normal gut flora and can commonly cause urinary, biliary or gastrointestinal tract related infections which can lead to BSIs. Some E. coli are enzyme producers known as extended spectrum beta lactamase (ESBL) which increase the resistance to multiple antibiotics. E. coli BSIs represented 72.1% of all GNBSIs in Somerset during 2021-22. Nearly three-quarters of E. coli BSIs occur before people are admitted to hospital.
- 8.6 In 2021-22 there were 641 GNBSIs in Somerset. 427 of these (66.5%) were community onset, with the remaining 214 cases either occurring 48 hours or more after the patient's admission or within 28 days of a hospital discharge (see Tables 7, 8 and 9).
- 8.7 The work plan identifies actions to investigate and identify common and contributing themes which precede the development of a GNBSI. Data analysis has identified outliers for community onset cases and a deep dive audit was planned for January 2022, however due to the Omicron variant this work was placed on hold and is now scheduled for quarter 2 of 2022-23.
- 8.8 E. coli case numbers for 2021-22 against official trajectory are shown in Chart 8 below.

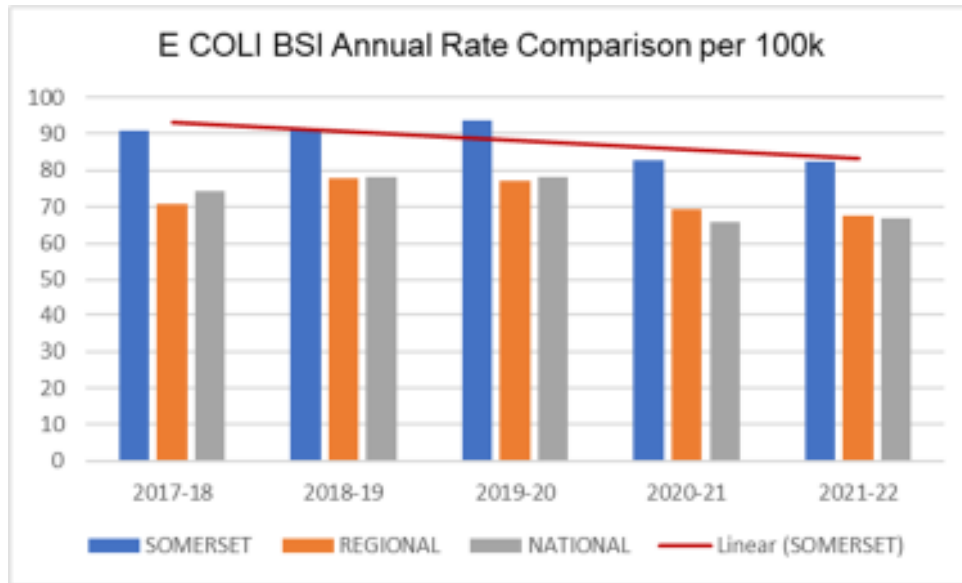
Chart 8: E. coli BSI numbers 2021-22 against trajectory



- 8.9 In 2021-21 the rate of E. coli blood stream infections in Somerset per 100,000 population was 82.36, which was the highest rate in the South West region but was a slight decrease on the previous year (82.88) when Somerset was the 2nd highest rate regionally. The rate for 2021-22 was higher than both the regional average (67.51) and national average (67.05) with the latter also showing an increase on the previous year

(65.86). A year-on-year comparison of E. coli BSI rates per 100,000 population is shown in Chart 9 below.

8.10 Chart 9: E. coli BSI Year on Year Rates per 100k



8.11 The majority of community attributed GNBSIs are E. coli and the attribution breakdown of E. coli cases for 2021-22 is shown in Table 11 below.

8.12 Table 11: E. coli BSI Attribution Status 2021-22

Attribution Status	No. of cases 2021/22
Hospital-Onset Healthcare Associated	85
Community-Onset Healthcare Associated	56
Community-Onset Community Associated	321
<b>TOTAL</b>	<b>462*</b>

\* including HOHA/COHA cases declared by Trusts outside Somerset CCG area

8.13 The breakdown of E. coli cases by Organisation is shown in Table 12.

Table 12: E. coli BSI Breakdown by Organisation 2021-22

Health Care provider	Year end figures 2021/22	Trajectory for 2021/22
Somerset CCG Primary Care	321	328
Somerset NHS Foundation Trust	72	95
Yeovil District Hospital NHS Foundation Trust	38	69
Royal United Hospital NHS Foundation Trust	12*	-
Weston General hospital NHS Trust	4*	-
<b>TOTAL</b>	<b>462**</b>	<b>492</b>

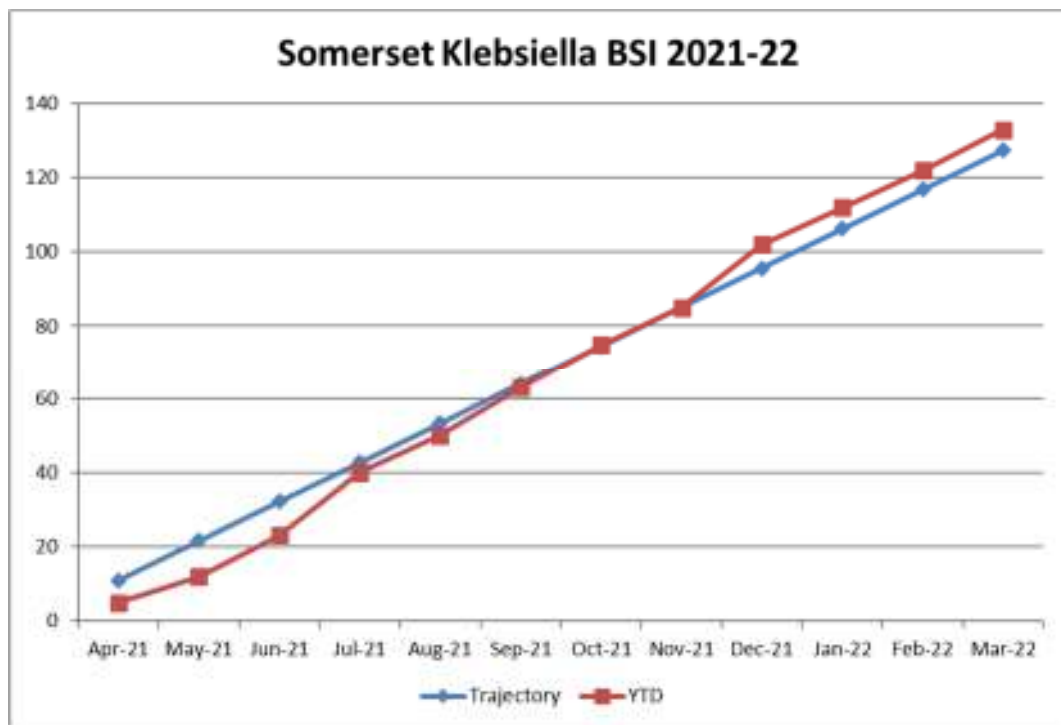


\* data relates to Trust attributed cases for 2021-22 for Somerset patients only. \*\* Total includes 15 Trust attributed cases declared by Trusts outside Somerset CCG area

Funding secured from South West Leadership Academy to progress QI work in 2022/23 to enable the team to investigate the rise UTIs and E Coli across the county with for the stakeholder mapping and workshop planned for June 2022 to identify actions and themes.

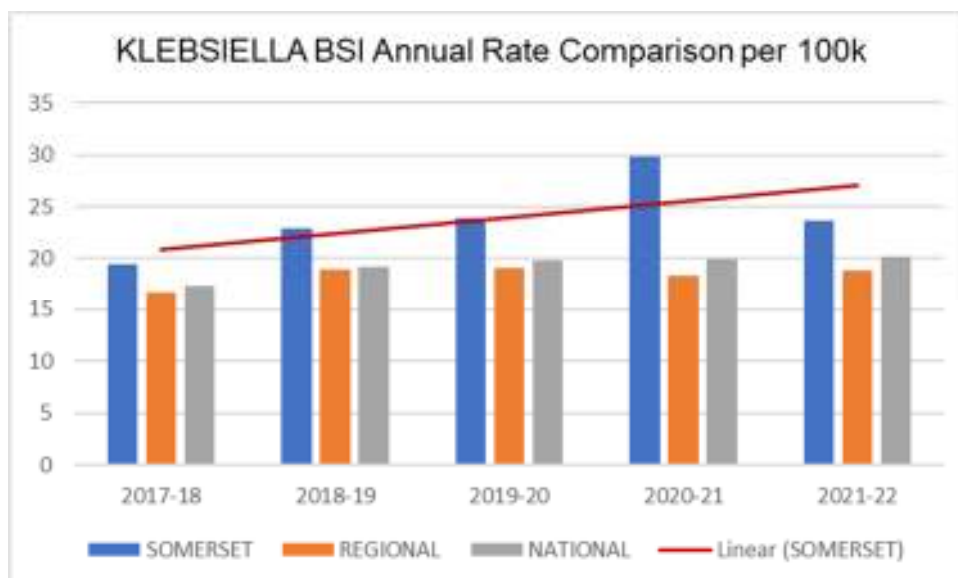
### Klebsiella Species

- 8.14 Klebsiella organisms are commonly associated with a range of HCAs including pneumonia, BSIs and wound infections.
- 8.15 In 2021-22 official trajectories for Klebsiella BSI were received for the first time and case numbers against trajectory are shown in Chart 10 below.
- 8.16 Chart 10: Klebsiella BSI numbers 2021-22 against trajectory



- 8.17 In 2021-22 the Somerset rate of Klebsiella per 100,000 population was 23.66, which was the 2nd highest rate in the South West region. This was a reduction from 29.88 in the previous year, which had been the highest regional rate. However, the rate for 2021-22 remains higher than both the regional average (18.85) and national average (20.15). A year-on-year comparison of Klebsiella BSI rates per 100,000 population is shown in Chart 11 below.

Chart 11: Klebsiella BSI Year on Year Rates per 100k



8.18 The attribution breakdown of Klebsiella BSI cases for 2021-22 is shown in Table 13 below.

8.19 Table 13: Klebsiella BSI Attribution Status 2021-22

Attribution Status	No. of cases 2021/22
Hospital-Onset Healthcare Associated	31
Community-Onset Healthcare Associated	22
Community-Onset Community Associated	80
<b>TOTAL</b>	<b>133*</b>

\* including HOHA/COHA cases declared by Trusts outside Somerset CCG area

8.20 The breakdown of Klebsiella BSI cases by Organisation is shown in Table 14.

Table 14: Klebsiella BSI Breakdown by Organisation 2021-22

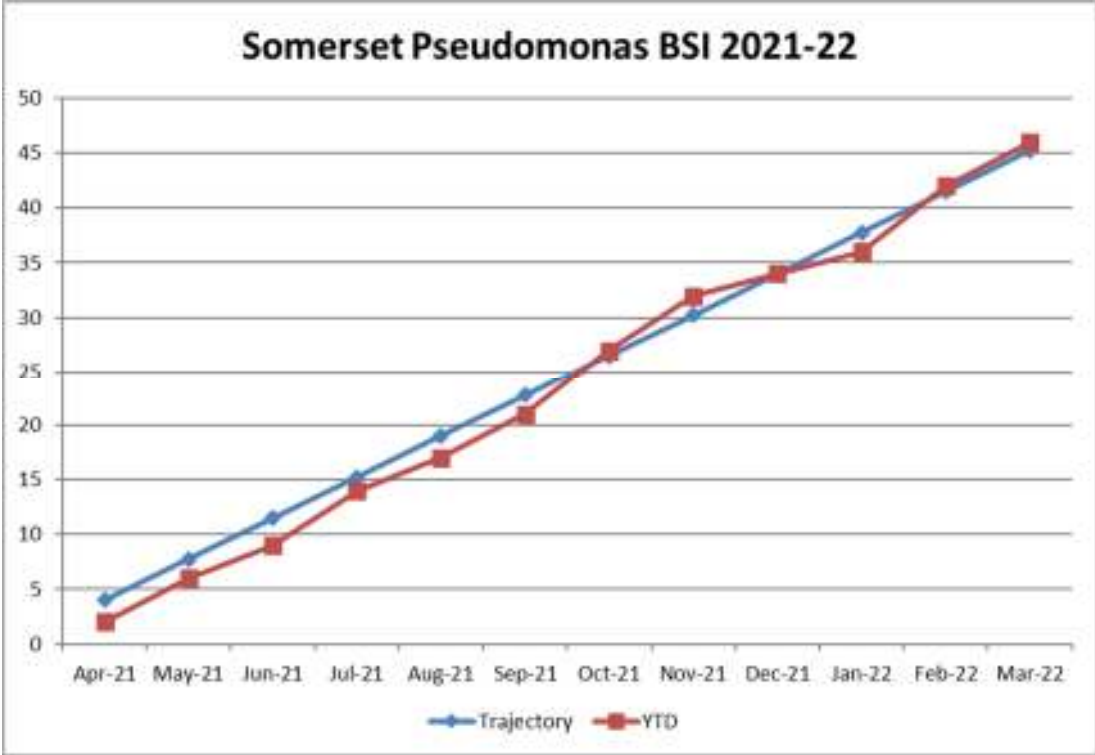
Health Care provider	Year end figures 2021/22	Trajectory for 2021/22
Somerset CCG Primary Care	80	80
Somerset NHS Foundation Trust	25	28
Yeovil District Hospital NHS Foundation Trust	10	19
Royal United Hospital NHS Foundation Trust	6*	-
Weston General hospital NHS Trust	2*	-
<b>TOTAL</b>	<b>133</b>	<b>127</b>

\* data relates to Trust attributed cases for 2021-22 for Somerset patients only.

\*\* Total includes 10 Trust attributed cases declared by Trusts outside Somerset CCG area

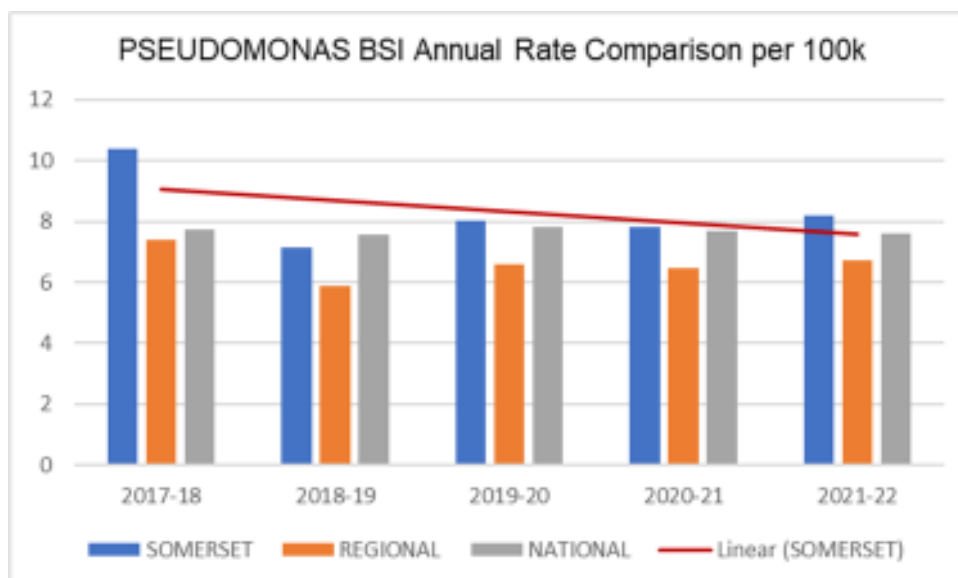
## Pseudomonas Aeruginosa

- 8.21 Pseudomonas aeruginosa organism is commonly associated with pneumonia, BSIs and wound infections.
- 8.22 In 2021-22 an official trajectory for Pseudomonas BSIs was received for the first time and Pseudomonas BSI case numbers for 2021-22 against official trajectory are shown in Chart 12 below.
- 8.23 Chart 12: Pseudomonas BSI numbers 2021-22 against trajectory



- 8.24 In 2021-22 the Somerset rate of Pseudomonas per 100,000 population was 8.19, an increase from 7.83 the previous year, and was the 3rd highest rate in the South West region, higher than both the regional average (6.74) and higher than the national average (7.63). A year-on-year comparison of Pseudomonas BSI rates per 100,000 population is shown in Chart 13 below.

Chart 13: Pseudomonas BSI Year on Year Rates per 100k



8.25 The attribution breakdown for Pseudomonas BSIs for 2021-22 is shown in Table 15 below.

8.26 Table 15: Pseudomonas BSI Attribution Status 2021-22

Attribution Status	No. of cases 2021/22
Hospital-Onset Healthcare Associated	8
Community-Onset Healthcare Associated	12
Community-Onset Community Associated	26
<b>TOTAL</b>	<b>46*</b>

\* including HOHA/COHA cases declared by Trusts outside Somerset CCG area

8.27 The breakdown of Pseudomonas BSI cases by Organisation is shown in Table 16.

Table 16: Pseudomonas Breakdown by Organisation 2021-22

Health Care provider	Year end figures 2021/22	Trajectory for 2021/22
Somerset CCG Primary Care	26	25
Somerset NHS Foundation Trust	14*	13
Yeovil District Hospital NHS Foundation Trust	2*	7
Royal United Hospital NHS Foundation Trust	3*	-
Weston General hospital NHS Trust	0*	-
<b>TOTAL</b>	<b>46**</b>	<b>45</b>

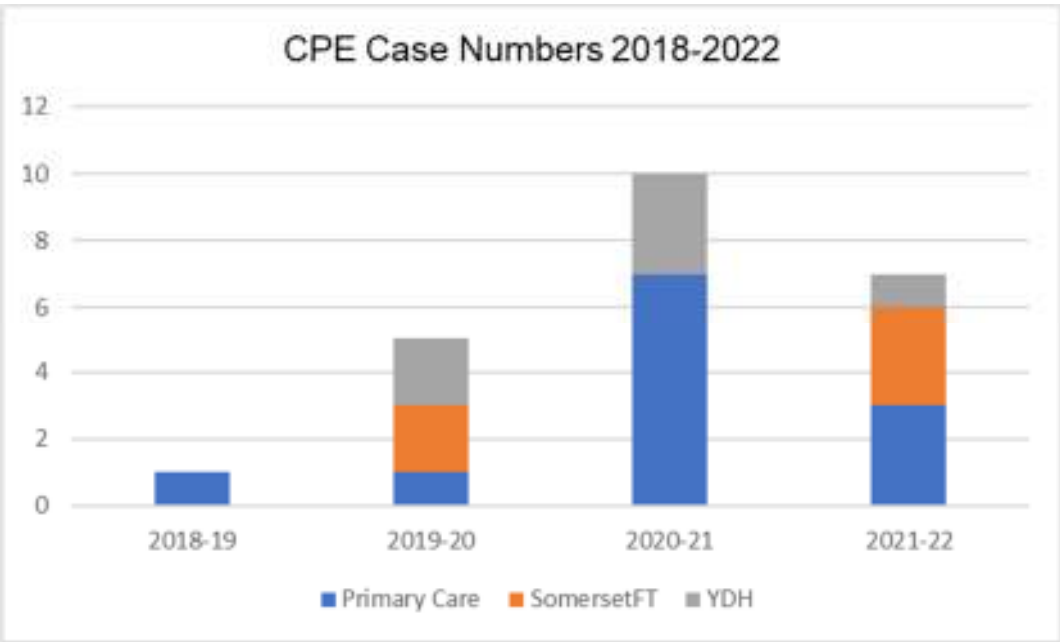
\* data relates to Trust attributed cases for 2021-22 for Somerset patients only.

\*\* Total includes 1 Trust attributed case declared by a Trust outside Somerset CCG area

## 9 CARBAPENEMASE-PRODUCING ENTEROBACTERIACE (CPE)

- 9.1 Carbapenemes-producing enterobacteriace (CPE) are multiple antibiotic resistant strains of bacteria which are associated with BSIs and UTIs. There are limited antibiotics available to treat CPE infections which increases the risk of treatment failure.
- 9.2 CPE is not an organism that is monitored with an official trajectory, and routine testing on admission is not policy unless the patient is known to meet agreed risk criteria.
- 9.3 There has been a decrease in cases identified in 2021-22 as shown in Chart 14 below.

Chart 14: CPE Case Numbers Year on Year



**10 INFECTION PREVENTION AND CONTROL OUTBREAKS**

- 10.1 The overall number of outbreaks across the Somerset healthcare system in 2021-22 is shown in Table 17 below.

Table 17: Outbreaks Overall 2021-22

OUTBREAK	OVERALL	HOSPITAL	CARE HOME	PRIMARY CARE
<b>OVERALL</b>	<b>423</b>	<b>92</b>	<b>307</b>	<b>24</b>
<b>COVID-19</b>	408	84	300	24
<b>NOROVIRUS</b>	9	7	2	0
<b>SCABIES</b>	5	0	5	0
<b>CPE</b>	1	1	0	0

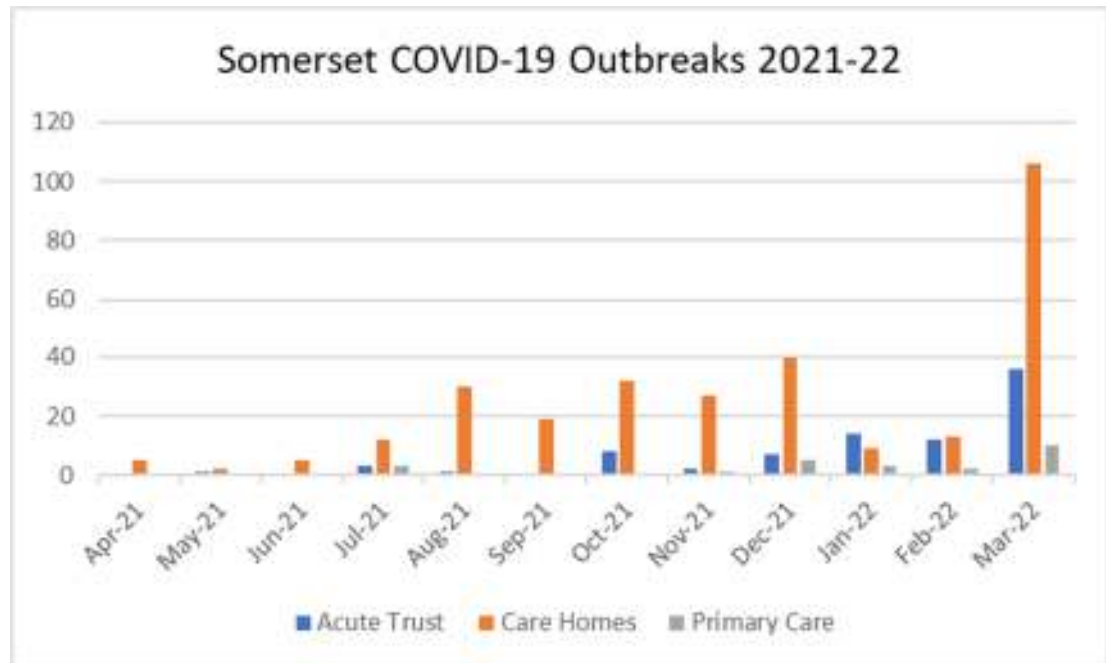
**COVID-19**

- 10.2 As a result of the on-going pandemic COVID-19 continued to be the main focus regarding outbreak support from the CCG IPC team throughout 2021-22. The emergence of the Omicron variant within Somerset from December 2021 resulted in a significant wave that caused a high number

of outbreaks across the system due to Omicron's heightened transmissibility which consumed resources across the Somerset system in quarter 4.

10.3 Chart 15 identifies the location of COVID-19 SARS outbreaks across the Somerset system for 2021-22.

10.4 Chart 15: Location of COVID-19 Outbreaks 2021-22



## OTHER OUTBREAKS

10.5 **Gastrointestinal Outbreaks**

10.6 There were 7 gastrointestinal outbreaks reported within healthcare settings during 2021-22, 6 of which were confirmed as Norovirus during quarter 4.

10.7 A further 2 Norovirus outbreaks were identified in care homes during 2021-22.

10.8 **Scabies**

10.9 During 2021-22 there were 5 suspected Scabies outbreaks reported within care homes in Somerset.

10.10 **CPE**

10.11 During November 2021 SomersetFT reported a CPE outbreak in one of their community hospitals involving 2 confirmed cases.

## Learning from outbreaks

10.12 Learning from outbreaks across the county, as well as learning being brought in from outside the county, is captured and considered at the Health Protection Board. The learning remains invaluable and informative and continues to shape our local response. The system continues to encourage an open culture of learning across all organisations,

encouraging and enabling people to share their experiences to benefit the county.

## **11 ANTIMICROBIAL STEWARDSHIP (AMS)**

- 11.1 The Antimicrobial Stewardship CQUIN programme remained suspended for 2021-22 due to the ongoing pressures of the COVID-19 pandemic. However, antimicrobial monitoring practice continued in the area where the CQUINs were focused. The AMS Work Plan has been incorporated into the CCG IPC Work Plan.
- 11.2 There was a 77.9% reduction in the use of Trimethoprim in the over 70s age-group compared with the baseline. The use of Trimethoprim items/ASTRO PU (all ages) continued a downward trend and at the end of quarter 4 was 0.92, within the annual reduction target of less than 2.0.
- 11.3 The percentage of Co-amoxiclav, cephalosporins and quinolones use reduced to pre-pandemic levels and remains well within the target (less than 10%) and the national average at 4.6% at year end.
- 11.4 The number of antimicrobials prescribed per STAR PU increased during 2021-22, from 0.7 at the end of 2020-21 to 0.760 at the end of quarter 4. However, this remained within target of less than 0.871.

## **12 CHALLENGES AND AMBITIONS FOR 2022-23**

- 12.1 The 2-year Somerset IPC Strategy was rewritten for 2021-23 which aims to strengthen ownership of IPC within NHS funded health and care services across Somerset. It aligns with the NHS Outcomes Framework and provides a consistent and effective approach across health care organisations supported by a Somerset systemwide work plan to ensure a focus on agreed objectives. The following 4 strategic goals have been developed to support this vision.
- 12.2 **Workforce development** – we are committed to developing the IPC workforce ensuring they are best placed to lead and deliver evidence-based skills and knowledge across the system.
- Ensuring visible, present and effective IPC leadership across the system
  - Enhancing ownership and engagement for IPC across the system, ensuring there is ownership and engagement for IPC at all levels
  - Development of a comprehensive and expert IPC service to support providers across the Somerset health care system
  - Work collaboratively across the Somerset health care system with the IPC champions increasing IPC knowledge of our providers
  - Additional funding secured for microbiology support in 2021/22 and 2022/23.
  - Additional funding secured for 0.8 WTE IPC nurse in 2022/23

12.3 **Effective commissioning and assurance** – we are committed to working collaboratively across the system with IPC input regarding improvement and assurance.

- Enhancing IPC input to commissioning, assurance and advisory functions
- Continue to implement contracting and assurance mechanisms across all commissioned services, exploring opportunities for reducing the burden of assurance and increasing opportunities to use Quality Improvement (QI) methodology to improve outcomes

12.4 **Quality and patient safety** – we are committed to reducing harm caused to our patients from avoidable HCAs.

- Maintain robust surveillance and outbreak management systems that informs current and future planning across the system
- Ensure effective learning and improvement across the system through an effective PIR process
- Ensure effective collaborative workstreams to address HCAI, AMR and Sepsis across the system utilising QI methodology as appropriate
- We will comply with the requirements of the Health and Social Care Act 2008: Code of Practice on The Prevention and Control of Infections and Related Guidance (2015)

12.5 **Fostering integration, partnerships and alliances across the system** – we are committed to working in partnership across the system to improve care being provided by being open, transparent and inclusive.

- Working collaboratively across the system with all providers to drive forward further reductions of HCAs across the whole health care economy
- Ensure policies, procedures and pathways are to guarantee a unified approach to continue to deliver high standards of IPC across the system
- Remain committed to supporting regional and national initiatives and innovations to improve the patient journey
- Opportunities for working in an ICS with IPC teams

## 13 **CONCLUSION**

13.1 The CCG IPC team continue to take a system wide approach ensuring patient safety remains high on the agenda to support and monitor IPC control measures, which continue to be monitored through the IPC Annual Work Plan during the SIPAAC quarterly meetings.

13.2 The key priorities for 2022-2023 include:

- a deep dive into E. coli BSI community attributed cases



- develop an MSSA reduction work plan and strategy across the system
- develop and implement a GNBSI reduction work plan and strategy across the system.
- deliver the UK national 5-year plan for Antimicrobial Resistance.
- continue responding to outbreaks across the healthcare system
- develop a C. diff reduction work plan and strategy across the system
- to work collaboratively across the system to deliver the national TB Action Plan 2021-2026.
- continue to develop on-going effective relationships across the healthcare system.
- continue to enhance and build upon relationships and networks developed through the pandemic.

## 14 REFERENCES

- 14.1 NHS Standard Contract 2021-22 <https://www.england.nhs.uk/nhs-standard-contract/previous-nhs-standard-contracts/21-22/>
- 14.2 The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance, DH, July 2015 available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/449049/Code\\_of\\_practice\\_280715\\_acc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/449049/Code_of_practice_280715_acc.pdf)
- 14.3 CPE Toolkit <https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-early-detection-management-and-control-toolkit-for-acute-trusts>
- 14.4 Management of COVID-19 in Healthcare Staff: <https://www.gov.uk/government/publications/covid-19-managing-healthcare-staff-with-symptoms-of-a-respiratory-infection>