Meeting Date	27 September 2022	Agenda Item	3.2 (ii)
Report Title	**PCTSG HCAI Update**		
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Report Sponsor	Dr Anjula Mehta / Tanya Spriggs		
Presented by	Dr Anjula Mehta		
Freedom of Information	Open		
Purpose of the Report	To provide a comprehensive update on the PCTSG Healthcare Associated Infections Improvement Plan and provide detail of the PCTSG current HCAI position in relation to agreed year-on-year service group reduction rates and WG reduction targets.		
Key Issues	Failure to achieve Welsh Government infection reduction goals for all Tier 1 HCAIs for 2022/23 to date. Failure to achieve PCTSG year-on-year improvement rates of 10% reduction for c.difficile, Staph Aureus and P. aeruginosa. 18% reduction rate in PCTSG year-on-year comparison data for E.Coli. 15.7% reduction rate in PCTSG year-on-year comparison data for Klebsiella. Recognise the direct alignment of the PCTSG improvement plan with the Health Board key quality priorities to improve performance against HCAIs. This influences current priority. Priority change from e.coli to C.difficile as the PCTSG primary target due to current infection rates. Recognition of the need for investment in dedicated service level IPC resource in order to drive improvement within PCTSG.		

Specific Action Required *(please choose one only)*	Information	Discussion	Assurance	Approval
	☒	☐	☐	☐
Recommendations	Members are asked to: Note the progress made to date in conjunction with the approved PCTSG Improvement plan. Note the current PCTSG position in relation to its agreed year-on-year 10% reduction targets for e.Coli, C.diff and staph aureus. Note the current PCTSG position in relation to Welsh Government reduction targets. Note current challenges and risks associated the implementation of the HCAI improvement plan

PCTSG HCAI UPDATE

1. INTRODUCTION

1.1. The purpose of this paper is to provide an update of the PCTSG current performance in tier 1 healthcare associated infection (HCAI) rates.

1.2. PCTSG HCAI rates are compared with Welsh Government reduction targets and measured against its own year-on-year data to provide an update on the progress and challenges of achieving a 10% reduction rate for all tier 1 targets.

1.3. This paper will also update on the progress of the PCTSG HCAI Improvement plan in relation to e.coli, C.difficile, antimicrobial stewardship and targeted education, engagement and compliance.

2. BACKGROUND

2.1. **All Health Boards - current performance.** The table below outlines the current position of SBUHB against all other Health Boards (Apr – Aug 2022). Incidences reported below are per 100,000 population. Current data highlights SBUHB as outliers in all tier 1 infection when compared to the Welsh Government reduction expectation rates. Significant improvement is needed in C.difficile, Staph Aureus, e.Coli and Klebsiella.

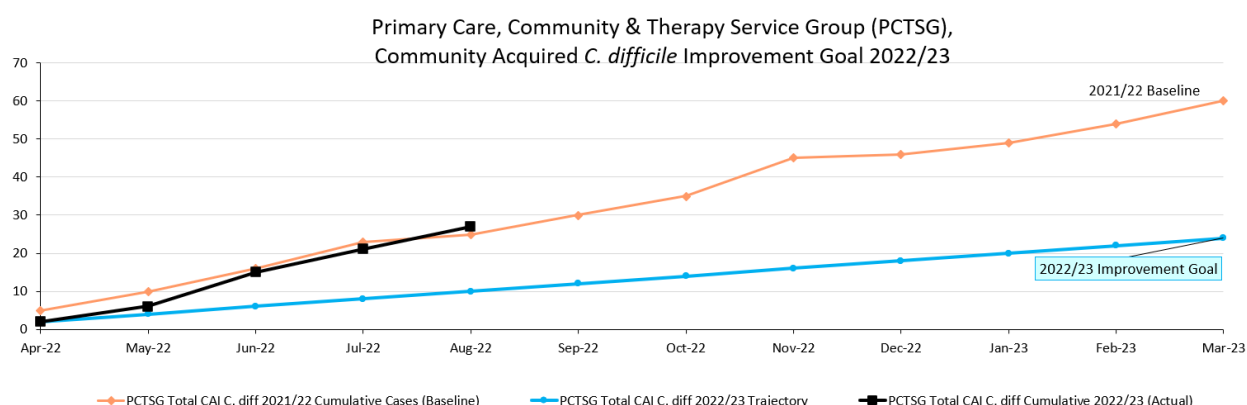|	C.difficile	Staph Aureus	E. Coli	Klebsiella	P. Aeruginosa
ABUHB	36.29	20.74	57.83	17.95	3.59
BCUHB	45.11	29.85	74.28	20.01	4.75
CVUHB	27.43	30.26	65.26	21.28	5.20
CTMUHB	25.46	38.18	80.08	16.97	10.08
HDUHB	52.03	23.87	75.91	25.10	8.57
SBUHB	47.60 (Goal 25)	38.44 (Goal 20)	74.45 (Goal 67)	25.02 (Goal 10% reduction)	9.15 (Goal 10% reduction)

2.2. **SBUHB - current performance.** The data table below outlines the current position of PCTSG against all other service groups in SBUHB. This is year-on-year comparison data for 2021/22 and 2022/23 between April – August for all tier 1 infections as reported by the Corporate IPC team at Management Board in Sep 22. The PCTSG data shows an overall improvement to date in E.coli and Klebsiella rates despite an overall increase in cases across the Health Board. There is an increase of 8% in C.difficile cases associated with community despite the Health Board reporting an overall reduction in c.difficile

rates. Static cases thus far for staph aureus and Pseudomonas Aeruginosa which will need close monitoring in the next reporting quarter.
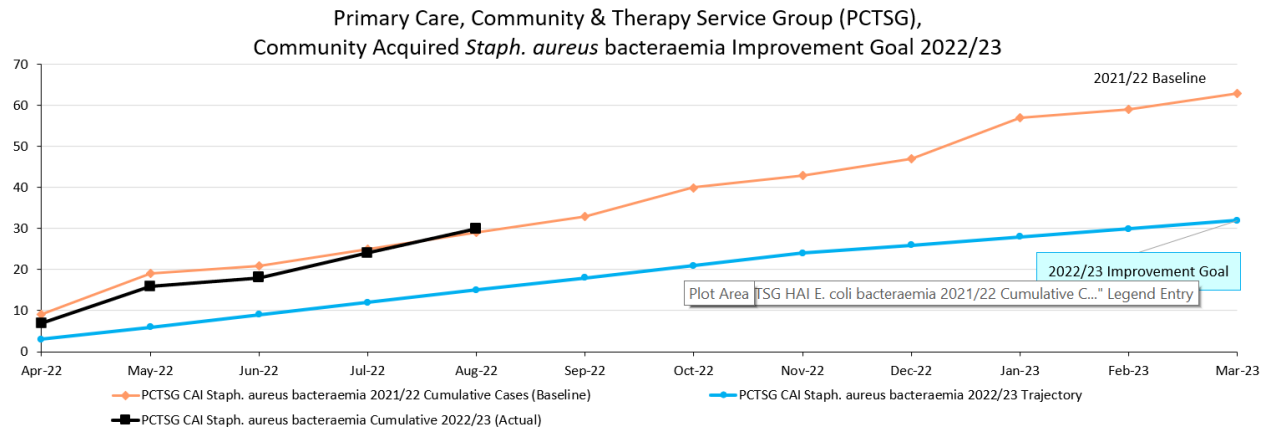
	C.difficile	Staph Aureus	E. Coli	Klebsiella	P.Aeruginosa
SBUHB	17% ⬇	7% ⬇	23% ⬇	11% ⬆	67% ⬆
Morriston Hospital	14% ⬇	69% ⬆	4% ⬆	33% ⬆	5 cases ⬆
Singleton Hospital	42% ⬇	44% ⬇	Equal	60% ⬆	1 case ⬆
NPTH	50% ⬇	1 case ⬆	91% ⬇	Equal	0 cases
MH & LD	0 cases	0 cases	1 case	0 cases	0 cases
PCTSG - Gorseinon	Equal	0 cases	Equal	0 cases	0 cases
PCTSG – Community	8% ⬆	Equal	26% ⬇	16% ⬇	Equal

2.3. **PCTSG – current performance.** The following graphs provide a visual of PCTSG current 2022/23 position for all tier 1 targets against 2021/22 data and WG reduction expectations. It is important to acknowledge the PCTSG improvement plan states a minimum target of 10% reduction in all tier 1 infections compared with year-on-year data and not in line with the WG trajectory. This was agreed during the initial discussion and sign off of the improvement plan to ensure PCTSG set realistic goals for infection reduction whilst recognising ongoing challenges in achieving this improvement.
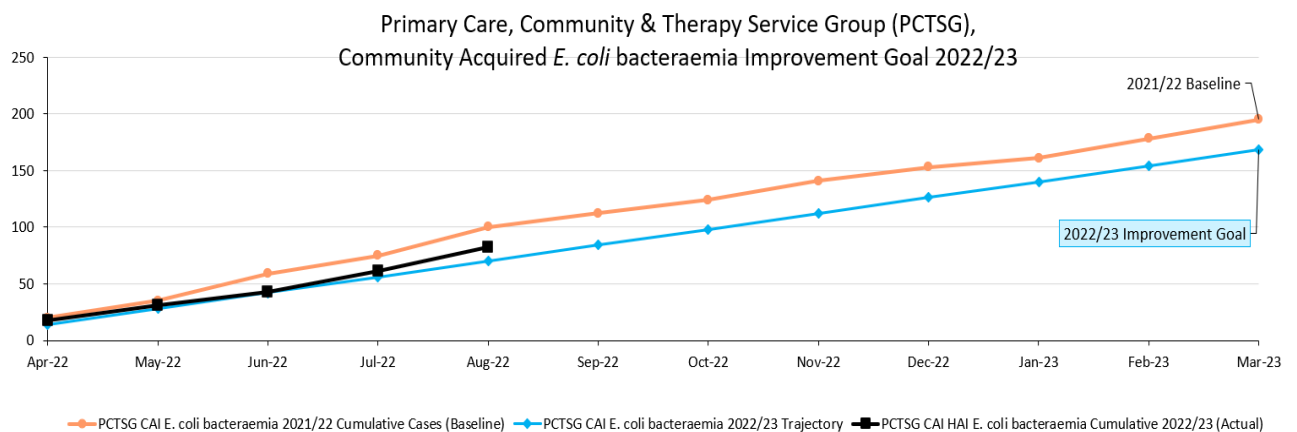
2.3.1. C. Difficile

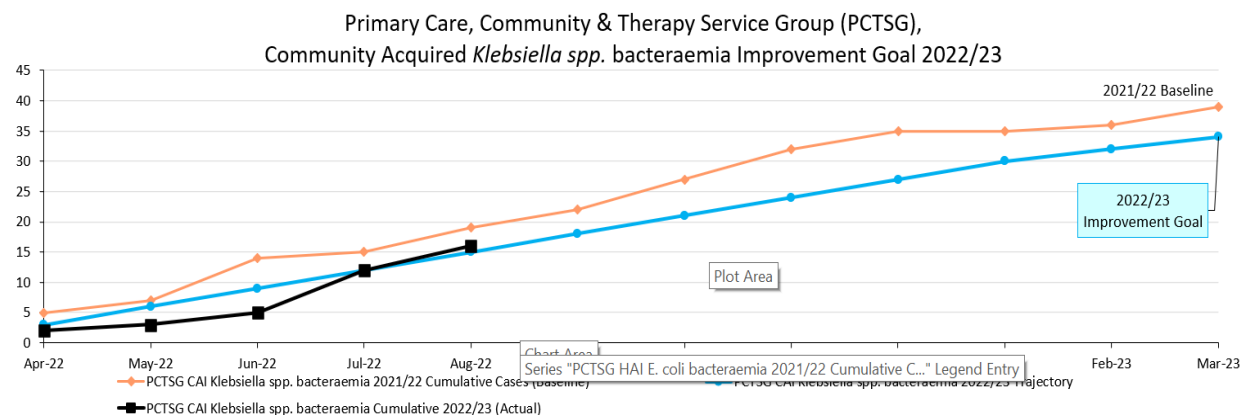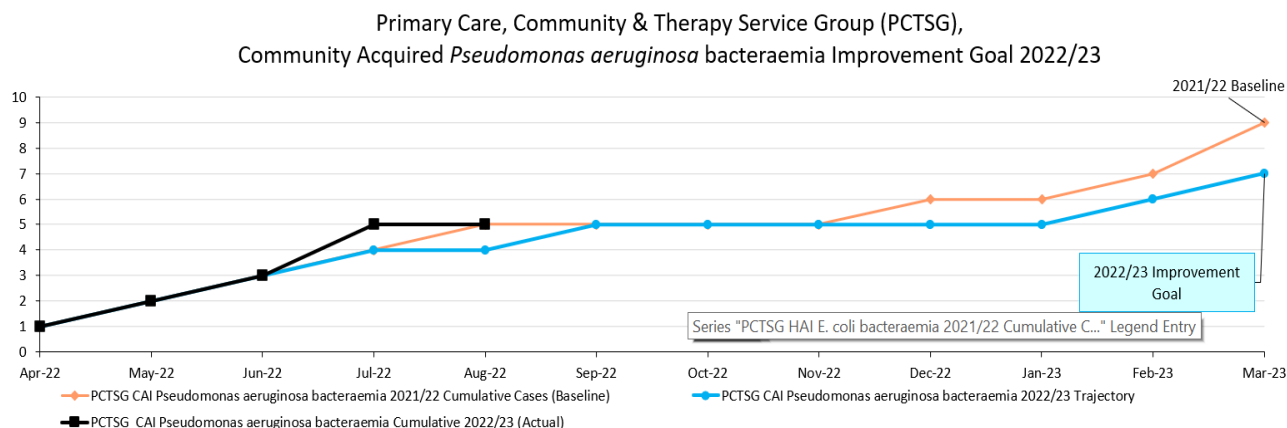Primary Care, Community & Therapy Service Group (PCTSG), Community Acquired *C. difficile* Improvement Goal 2022/23

- PCTSG Total CAI C. diff 2021/22 Cumulative Cases (Baseline)
- PCTSG Total CAI C. diff 2022/23 Trajectory
- PCTSG Total CAI C. diff Cumulative 2022/23 (Actual)

2.3.2. Staph Aureus Bacteraemia

Primary Care, Community & Therapy Service Group (PCTSG), Community Acquired *Staph. aureus* bacteraemia Improvement Goal 2022/23

Legend:
- PCTSG CAI Staph. aureus bacteraemia 2021/22 Cumulative Cases (Baseline)
- PCTSG CAI Staph. aureus bacteraemia 2022/23 Trajectory
- PCTSG CAI Staph. aureus bacteraemia Cumulative 2022/23 (Actual)

2.3.3. E. Coli Bacteraemia

Primary Care, Community & Therapy Service Group (PCTSG), Community Acquired *E. coli* bacteraemia Improvement Goal 2022/23

Legend:
- PCTSG CAI E. coli bacteraemia 2021/22 Cumulative Cases (Baseline)
- PCTSG CAI E. coli bacteraemia 2022/23 Trajectory
- PCTSG CAI HAI E. coli bacteraemia Cumulative 2022/23 (Actual)

2.3.4. Klebsiella Bacteraemia

Primary Care, Community & Therapy Service Group (PCTSG), Community Acquired *Klebsiella spp.* bacteraemia Improvement Goal 2022/23

Legend:
- PCTSG CAI Klebsiella spp. bacteraemia 2021/22 Cumulative Cases (Baseline)
- PCTSG CAI Klebsiella spp. bacteraemia 2022/23 Trajectory
- PCTSG CAI Klebsiella spp. bacteraemia Cumulative 2022/23 (Actual)

2.3.5. Pseudomonas Aeruginosa Bacteraemia

Primary Care, Community & Therapy Service Group (PCTSG),
Community Acquired *Pseudomonas aeruginosa* bacteraemia Improvement Goal 2022/23

2.4. **PCTSG Improvement Plan Update**. The following points provide an update on PCTSG key priorities as outlined within the agreed service group improvement plan. The initial PCTG improvement plan outlined the need for primary focus to be the reduction of community associated e.Coli cases due to increasing incidences in 2021/22 data. This was agreed and actioned by PCTSG within the service group HCAI sub group, Health Board Infection Control Committee and sign off granted via Corporate Management Board. Targeted campaigns and whole-system focus on e.Coli has resulted in a 26% reduction in community associated cases in 2022/23 in comparison with 2021/22 data. Given the current data shows an 8% increase of community acquired C.difficile cases, it has been agreed within the PCTSG HCAI sub group to now place a primary focus on this tier 1 infection instead of priority focus being solely on e.Coli.

2.4.1. **C. Difficile scrutiny**. Improvement is needed in current community associated c.difficile infection rates due to an 8% increase in year-on-year data. PCTSG are focussing on the following actions in order to tackle this tier 1 infection;

- **C.difficile reporting structure**. Revised significant event reporting structure now in place with new SEA form content agreed between PCTSG and the Local Medical Committee to ensure buy-in from independent contractors. The revised electronic SEA forms will commence use in Sep 22.
- **Dedicated IPC and Nurse Assessor support for Care Homes**. This ensures Care Home teams are supported through the SEA process for any c. diff cases associated with a care home resident. Immediate actions, training and lessons learned can be identified and implemented without delay. This additional resource has been agreed by Corporate IPC without any additional financial resource.
- **Monthly c.difficile scrutiny panel**. A new process has been implemented to ensure adequate scrutiny of each toxin positive

c.difficile case associated with PCTSG. Monthly scrutiny panels have been placed in key stakeholder diaries, these include, IPC Lead nurse, Microbiology, PCTSG IPC Lead, PCTSG Medical Director, PCTSG Nurse Director, Antimicrobial Pharmacist. Co-opted members include representation from the associated service or independent contractor practice/home. Lessons learned, overarching themes and trends are identified and actioned by the panel to ensure awareness, improvement and compliance. First scrutiny panel has been scheduled for end Sep 22.

2.4.2. **UTI task and finish group**. This is ongoing in response to the initial priority afforded to e.coli infection rates. A task and finish group was established in quarter 1 and led by the Clinical Lead for AMS/HCAI. The following areas have been progressed;

- **GMS Newsletter**. UTI prevention, top tips and prescribing guidance to help reduce instances of community associated e.coli. Positive feedback received from Primary Care Contractors regarding the newsletter content and effectiveness.
- **Cluster QAIF initiative**. Campaign commenced by the Clinical Lead to promote UTI prevention as the initiative of choice for Cluster QAIF projects, This has proven successful, with a significant number of practices opting to choose this topic thus raising awareness and action associated with UTI prevention and reduction of e.coli cases.
- **ViPC electronic template**. An external company has been procured to devise a bespoke electronic template to embed within Primary Care digital systems to promote UTI prevention through prescribing guidelines, education, clinical steering, targeted patient advice, signposting and support. This is in the final process of roll out and outcomes will be reported at the end of the financial year.
- **General Practice and Urgent Primary Care (Out of Hours) engagement**. Increased contact, support and guidance offered to in-hours and out of hours GMS teams to promote good prescribing practices.

2.4.3. **PCTSG Service Visiting programme.** A bespoke visiting programme has been devised by the PCTSG Lead IPC Nurse to ensure support, training and update is provided to services identified as priority areas. This is due to service-own request for help, recommendations outlined in HIW inspection reports or poor training compliance rates. Consideration is given to bespoke/specialist service areas where more targeted IPC advice may be needed. Each visit is conducted by the PCTSG IPC Lead Nurse and provides an action plan with realistic improvement goals to ensure better IPC understanding, compliance and practice within the service. This visiting programme commenced in quarter 1 and aims to complete 3 service visits per month. Please see the attached visiting programme for more detail (appendix 2).

2.4.4. **Antimicrobial Stewardship.** The following areas have been prioritised by the Antimicrobial Pharmacy team, Clinical Lead for HCAI/AMS and PCTSG Directors to ensure continued improvement is seen in overall antibiotic

prescribing data and to improve and maintain understanding and buy-in from prescribing clinicians within Primary Care and Community environments.

- **Targeting of top 3 highest prescribing practices in SBUHB.** This is an agreed priority within the PCTSG Improvement plan and refers to the top 3 practices for overall antibiotic prescribing and targeted 4C prescribing. Significant improvement has been seen in overall SBUHB prescribing figures over the past 18months, continued focus on this area by the antimicrobial teams has seen current top prescribing practices engage with the Health Board to reduce/improve their antibiotic prescribing over the past 6months. A time lag in prescribing data means we are current awaiting updated figures associated with this financial year. Local prescribing data analysis has shown a reduction in antibiotic prescribing associated with UTI and skin in the targeted practices.
- **Education and engagement.** Key messages, guidelines and support are disseminated to all GP Practices via the quarterly prescribing leads meetings.
- **Webinars.** A series of lunchtime webinars are being rolled out to GMS practices to offer quick, informative and relevant training on prescribing guidelines, infection prevention and 'hot topics' such as Skin, c.difficile prescribing guidelines, UTI and CPOD rescue pack guidance. These sessions are proving popular with good attendance and feedback from clinicians.

2.4.5. **Education, training and engagement**. The following areas have been prioritised by PCTSG to ensure compliance and improvement in mandatory training, service specific training, awareness, understanding and accountability in the context of infection prevention and control.
- **Education 'plan on a page'**. Devised by the PCTSG IPC lead Nurse to provide a 'one stop shop' for all IPC training requirements, including relevant links and role-specific training requirements. (See appendix 3).
- **Protected Time for Learning sessions**. The upcoming Health Board PT4L session has a dedicated IPC session for all clinicians. IPC will be introduced as a key Health Board priority, with emphasis placed on the need for clinical buy-in to achieve improvements in infection rates.

3. GOVERNANCE AND RISK ISSUES

3.1. The following areas have been identified as ongoing risks associated with the delivery of the PCTSG HCAI improvement plan and key priorities.

3.1.1. **Workforce**. Limited workforce resource is currently available within PCTSG to afford the necessary priority to the delivery of this plan. The Head of Nursing for Primary Care currently leads on IPC quality priorities and general IPC governance for the service group and attends all relevant IPC meetings at service group and health board level. Directorate level support is given by the Group Medical Director and Group Nurse Director to help drive innovation and improvement at service group level. This is absorbed into the daily workload of these roles. Limited resource is available from the

Corporate IPC team to support the service group priorities, although this has been increased in the last month to approximately 0.5wte for PCTSG, this remains less than required to make the necessary impact for the improvement plan priorities. The previous Care Home IPC Lead Nurse role was not funded for this financial year, which leaves a gap in this area for targeted support. The Clinical Lead for HCAI/AMS role is a 0.2wte resource on fixed term contract until March 2024. Support from the Antimicrobial Pharmacy team has exceeded good will over the past 6 months as they have supported lengthy prescribing improvement projects in Primary Care with no additional resource. Previous support from the pacesetter Quality Improvement team ceased in March 2022.

It is estimated that an additional 0.5wte administrator, 1wte business support manager, 1 wte dedicated IPC nursing support, 1wte Pharmacy Technician and dedicated digital and business intelligence support is needed to achieve the actions and outcomes outlined in the PCTSG improvement plan. Current Business Intelligence support within PCTSG cannot absorb this additional ask. Health Board digital services resource is stretched currently due to the high number of digital priority areas. There will be limited improvement and achievement seen in the next 12 months if resource remains the same.

3.1.2. **Environmental factors/estates**. Acknowledgement is needed of the associated challenges and risks within PCTSG specific services. An ongoing estates review within PCTSG has highlighted issues with healthcare buildings, several General Practice premises are currently not fit for purpose. Delivering care in the patient's own home poses challenges for community teams in maintaining standard IPC processes due to the nature of the non-healthcare environment. Services such as HMP Swansea are hindered from an IPC viewpoint due to the outdated and overcrowded environment of the prison building. These challenges contribute to significant risk of increased community associated infection rates due to the lack of environmental control.

3.1.3. **Engagement with independent contractors**. Acknowledgement is needed of the associated challenges of cross service/agency communication. Independent contractor compliance is vital in order to achieve improvement in community acquired infections. This includes General Practice, Dental services, Pharmacy, Optometry and the Care Homes sector. Lack of engagement and overall compliance with IPC policies and processes threatens the overall HCAI improvement programme and increases the risk of infection in community settings. Further targeted communication, engagement and time is needed to ensure effective collaboration between PCTSG and independent contractors to ensure robust governance structures, reduction of harm and risk and improved patient outcomes. This will be impacted by a lack of specific PCTSG IPC resource.

3.1.4. **Data capture/Digital support**. The Health Board are currently progressing an active dashboard to capture all service group IPC data. This will help to inform service groups of priority areas and help steer focus and actions. A

current lack of this live, accessible, group specific data hinders actions of service groups, for both reactive and proactive workstreams.

4. FINANCIAL IMPLICATIONS

4.1.   The following financial implications have been identified for PCTSG;

4.1.1. **Targeted campaigns.** Careful consideration is needed for the costs associated with campaign literature, communications, training sessions and associated merchandise (if applicable). A cost comparison based on previous HCAI projects devised and promoted by PCTSG can be used to estimate required funds. This would be approximately £2000 per campaign for leaflets, posters, training resources and merchandise. Agreement is needed on the type and scale of health promotion campaigns specific to PCTSG IPC priorities for the remainder 6 months of this financial year and next.

4.1.2. **Digital support**. General Practice have identified the need for specific IPC templates as part of their existing system software to drive down antibiotic prescribing and improve UTI management and treatment. The cost of these templates are £10000 for the company ViPC to build, install, train and maintain this software 'add on'. This is being progressed but with no additional financial resource afforded to PCTSG.

4.1.3. **Workforce.** Additional workforce resource needed to achieve the actions and outcomes outlined in the improvement plan has been estimated at; 0.5wte administrator band 4, 1 wte band 5 business support, 1 wte band 7 dedicated IPC nursing support, 1 wte band 6 Pharmacy Technician. Additional service group Business Intelligence and Digital support specific to the improvement plan agenda.

5. RECOMMENDATION

5.1.   The group is asked to acknowledge the following points;

5.1.1. Note the reduction figures for e.Coli and Klebsiella bacteraemia cases associated with community for 2022/23 in comparison with year-on-year data.

5.1.2. Note the ongoing challenges with increasing cases of C.difficile and equal cases for Staph aureus and P. aeruginosa bacteraemia associated with community for 2022/23 in comparison with year-on-year data.

5.1.3. Note the change of primary focus in the PCTSG improvement plan to prioritise C.difficile in place of e.Coli.

5.1.4. Acknowledge the need for additional workforce for specific PCTSG IPC workstreams in order to deliver the agreed improvement plan.

Governance and Assurance		
Link to Enabling Objectives *(please choose)*	**Supporting better health and wellbeing by actively promoting and empowering people to live well in resilient communities**	
	Partnerships for Improving Health and Wellbeing	☒
	Co-Production and Health Literacy	☒
	Digitally Enabled Health and Wellbeing	☒
	Deliver better care through excellent health and care services achieving the outcomes that matter most to people	
	Best Value Outcomes and High Quality Care	☒
	Partnerships for Care	☒
	Excellent Staff	☐
	Digitally Enabled Care	☐
	Outstanding Research, Innovation, Education and Learning	☒
Health and Care Standards		
(please choose)	Staying Healthy	☒
	Safe Care	☒
	Effective Care	☒
	Dignified Care	☐
	Timely Care	☐
	Individual Care	☒
	Staff and Resources	☒
Quality, Safety and Patient Experience		
Reduction in community HCAI rates will directly improve patient care and outcomes, decrease risk of harm to patients and staff and act to reduce the pressure on healthcare systems and budgets currently associated with high instances of infection.		
Financial Implications		
Financial implications are associated with increased workforce resource and commitment to targeted HCAI reduction campaigns. The level of success associated with the improvement plan outcomes is directly linked to the level of financial investment.		
Legal Implications (including equality and diversity assessment)		
Consideration needs to be afforded to the preventable harm associated with HCAI reduction rates. The Health Board quality and safety agenda and key quality priorities associated with IPC link directly with the Health and Social Care Act, HSE regulations and Professional Codes of Conduct for Healthcare Professionals.		
Staffing Implications		

There is a current workforce resource deficit in relation to PCTSG IPC. Failure to allocate funding and recruit into dedicated IPC support roles will hinder the delivery of the PCTSG HCAI improvement plan 2022/23.

Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015)

o **Long Term** – Reduction of harm and risk to patients through improved care outcomes.
o **Prevention** – Reduction of infection rates to improve care and prevent harm.
o **Integration –** Connecting primary care, community, therapies, pharmacy and wider workforce individuals in common healthcare goals will act to achieve effective integration to deliver on improvement outcomes.
o **Collaboration** - Collaboration and cross agency engagement will support the HCAI improvement agenda and ensure better patient and staff wellbeing and outcomes
o **Involvement –** Ensuring inclusion and leadership is promoted from and by the right individuals to make the most effective impact to the HCAI service improvement plan.

Report History	• March 2022: Health Board IPC Improvement Plan (Management Board paper) • March 2022: PCTSG IPC Improvement Plan (Management Board paper) • August 2022: Health Board IPC Update paper (Management Board paper)
Appendices	Appendix 1: PCTSG HCAI Improvement Plan 2022/23 📄 20220426-PCTSG-HCAI-Improvement Pla Appendix 2: PCTSG Visiting Programme 📄 PCTG visit log v1.xlsx Appendix 3: PCTSG Education 'plan on a page' 📄 PCTG IPC Education on a page -Sept. 2022