

Infection Prevention Update for QSE

January 2021

Infection prevention report

- Update on QSE outstanding action
- Mandatory Surveillance Infections benchmarking, trajectories & performance with narrative, assurances & improvement actions required
- Covid-19 Infections benchmarking, trajectories & performance with narrative and plan
- Covid-19 Infections outbreak deep dive gaps in control, learning and actions for success
- Infection prevention approach

QS20/85.4 Clarify triangulation of urology data with removal of catheters and confirm details of work programme.

Urinary catheter task and finish group was held on 22 December 2020

Actions from the meeting:

- Hold second meeting to include doctors and improvement lead
- Infection Prevention Control Team and District Nurse Team to work jointly to develop a Bacteraemia Post Infection Review tool for patients with urinary catheters in the community – a draft has been developed and piloted
- BCUHB Database required to be held centrally of catheterised patients detailing how long they have been waiting for a Trial Without Catheter/or not

Recommend:

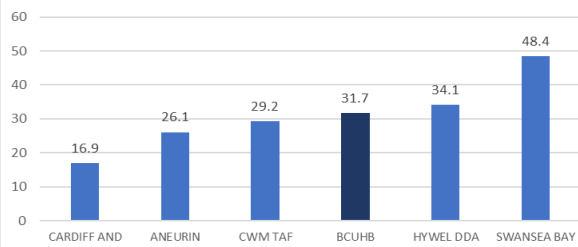
- Develop catheter improvement project in the community.
- Identify a lead.
- Assure through Area Local Infection Prevention Groups via IPSG to QSE
- Close QSE action

Infection Prevention Performance November 20 Update

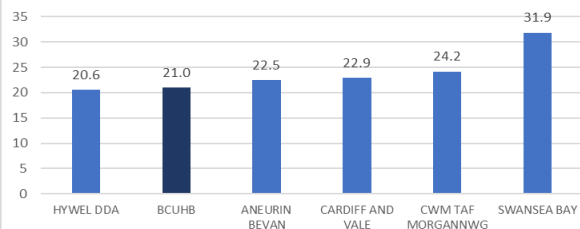
- Welsh Government trajectories have not been set for 2020/21, the number of cases have been measured alongside the trajectories for 2019/20. We are not an outlier and performing well in some, compared with other Welsh Health Boards (see slide 5). We are unfortunately over our trajectories for all organisms except for E.coli, however, this is not a deteriorating picture in performance as you can see from the following graphs.
- In 2019/20 we had a large reduction in CDI trajectory, but have been unable to improve our position this year as much as we would have liked. This year to date we have seen 148 CDI cases, East 44 (trajectory 42), Central 62 (trajectory 30) and West 42 (trajectory 27). All Welsh Health Boards have seen increases in Clostridium Difficile Infections (CDI).
- Methicillin Resistant Staphylococcus Aureus (MRSA) five cases year to date, all from samples collected in the Emergency Department and considered to be of community onset. In comparison to last year to date BCU has had 17% fewer infections. Second position across Wales.
- Methicillin Sensitive Staphylococcus Aureus (MSSA) 100 cases year to date. East 38 (trajectory 38), Central 33 (trajectory 27) West 29 (trajectory 24)
- 297 E.coli cases year to date. East 107 (below agreed trajectory 130), Central 118 (trajectory 96) and West 72 (below agreed trajectory 87). Overall BCU have seen 23% fewer infections year to date Third position across Wales. Overall infections are decreasing despite a national and international increase in gram negative infections.
- We are the leading Welsh Health Board with our performance around Klebsiella infections. Down 20% to last year compared to all Wales 13%. Klebsiella infections 74 cases year to date. East (below agreed trajectory of 28), Central 35 (trajectory 20) and West 17 (below agreed trajectory 20).
- We have seen zero Pseudomonas Bloodstream Infections (BSI) in November, with 25 cases year to date. East 11 (trajectory 7), Central 9 (trajectory 4) West 5 (trajectory 4).

All Wales Infection Mandatory Surveillance

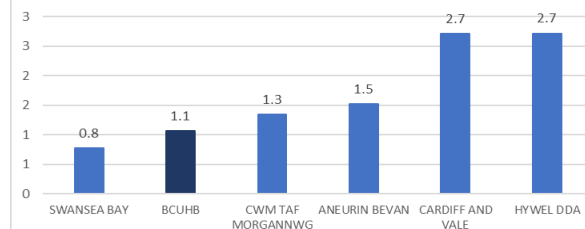
Benchmark Chart - *C. difficile* rate per 100,000 of the population - April to November 2020 (Rolling)



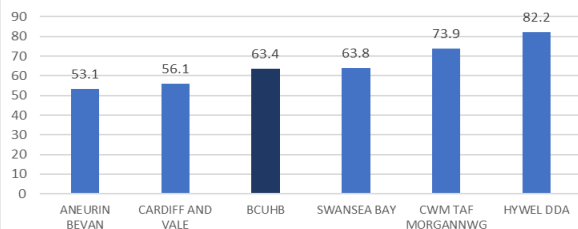
Benchmark Chart - MSSA bacteraemia rate per 100,000 of the population - April to November 2020 (Rolling)



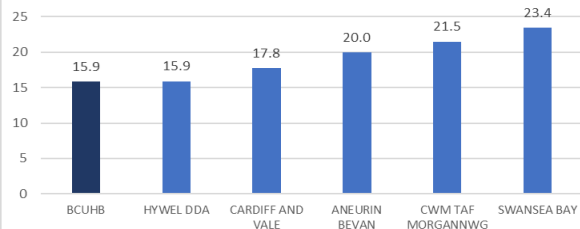
Benchmark Chart - MRSA bacteraemia rate per 100,000 of the population - April to November 2020 (Rolling)



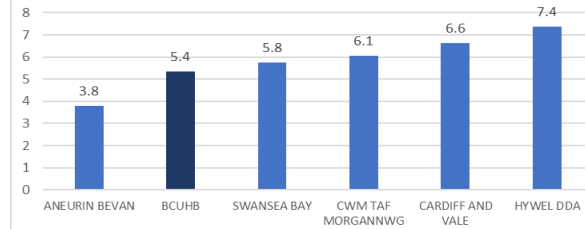
Benchmark Chart - *E. coli* bacteraemia rate per 100,000 of the population - April to November 2020 (Rolling)



Benchmark Chart - *Klebsiella* bacteraemia rate per 100,000 of the population - April to November 2020 (Rolling)



Benchmark Chart - *P. aeruginosa* bacteraemia rate per 100,000 of the population - April to November 2020 (Rolling)



Source: PHW

- In comparison to other Welsh Health Boards we are not an outlier position between first and forth comparing data April to November

Infection Mandatory Surveillance Comparison Numbers

Wales 2020/21 HCAI mandatory surveillance summary, Apr - Nov 20



lechyd Cyhoeddus
Cymru
Public Health
Wales

Higher than same period of previous FY

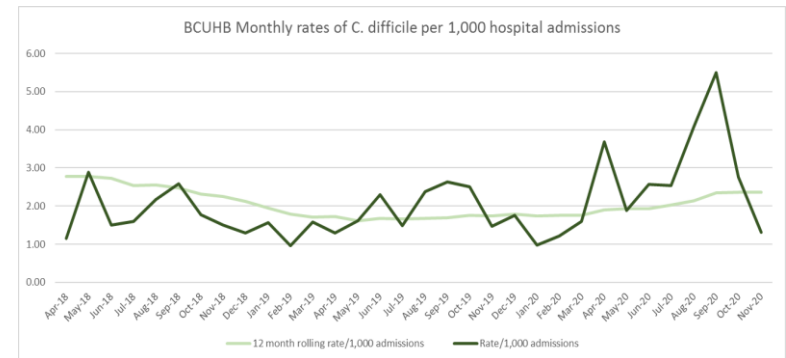
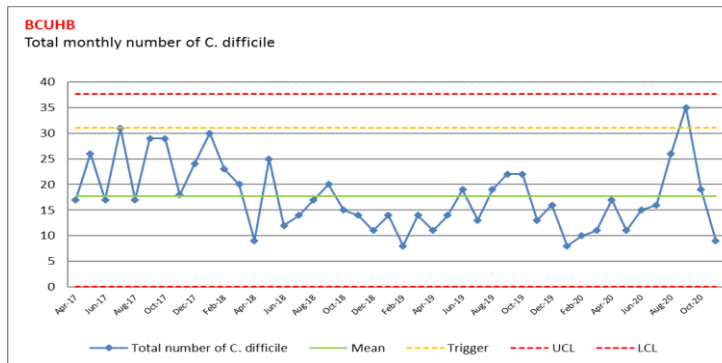
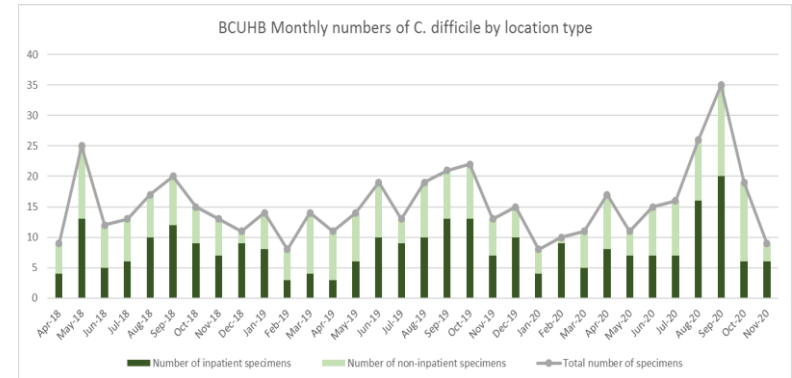
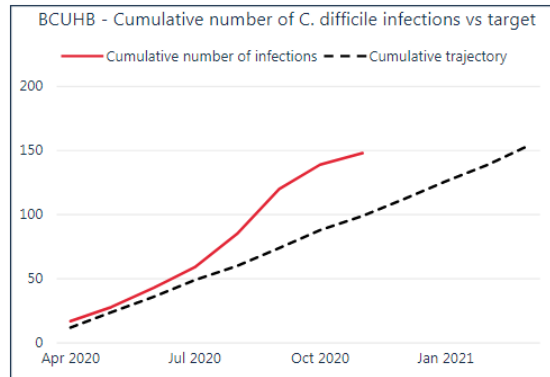
Lower than same period of previous FY

Same as same period of previous FY

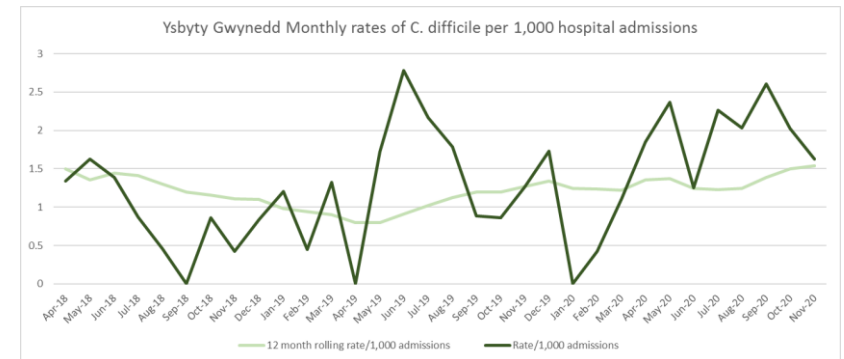
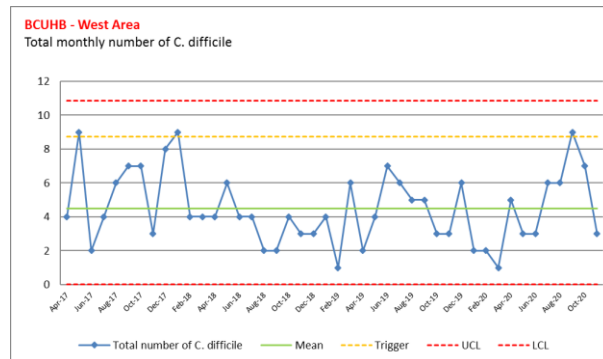
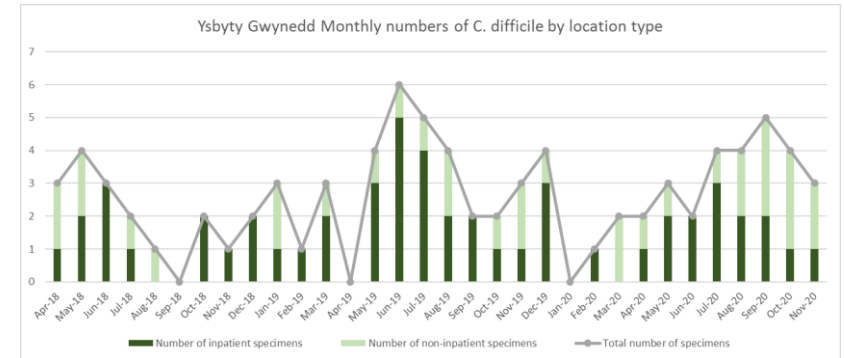
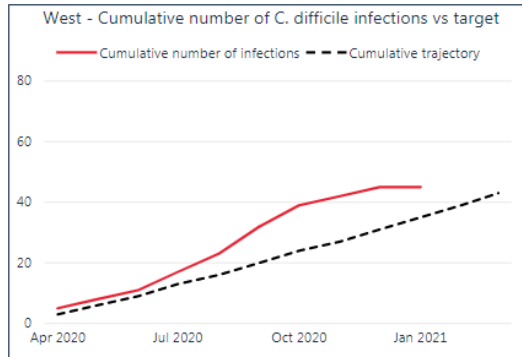
	C. difficile		MRSA bacteraemia		MSSA bacteraemia		S. aureus bacteraemia		E. coli bacteraemia		Klebsiella sp bacteraemia		P. aeruginosa bacteraemia		Gram negative bacteraemia	
	Number of Specimens	Summary FY Rate	Number of Specimens	Summary FY Rate	Number of Specimens	Summary FY Rate	Number of Specimens	Summary FY Rate	Number of Specimens	Summary FY Rate	Number of Specimens	Summary FY Rate	Number of Specimens	Summary FY Rate	Number of Specimens	Summary FY Rate
Aneurin Bevan UHB	103	26.06	6	1.52	89	22.52	95	24.04	210	53.13	79	19.99	15	3.80	304	76.92
Betsi Cadwaladr UHB	148	31.70	5	1.07	98	20.99	103	22.06	296	63.40	74	15.85	25	5.35	395	84.61
Cardiff and Vale UHB	56	16.88	9	2.71	76	22.90	85	25.61	186	56.05	59	17.78	22	6.63	267	80.46
Cwm Taf Morgannwg UHB	87	29.23	4	1.34	72	24.19	76	25.54	220	73.92	64	21.50	18	6.05	302	101.48
Hywel Dda UHB	88	34.14	7	2.72	53	20.56	60	23.28	212	82.24	41	15.90	19	7.37	272	105.52
Powys THB	6	6.78	0	0.00	1	1.13	1	1.13	2	2.26	1	1.13	1	1.13	4	4.52
Swansea Bay UHB	126	48.41	2	0.77	83	31.89	85	32.66	166	63.77	61	23.44	15	5.76	242	92.97
Velindre NHST	5		0	0.00	1		1		6		2		0		8	
Wales	619	29.50	33	1.57	473	22.54	506	24.12	1,298	61.86	381	18.16	115	5.48	1,794	85.50

Source: PHW

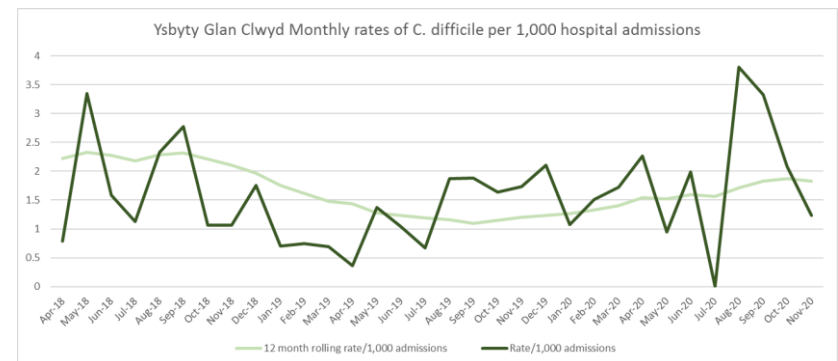
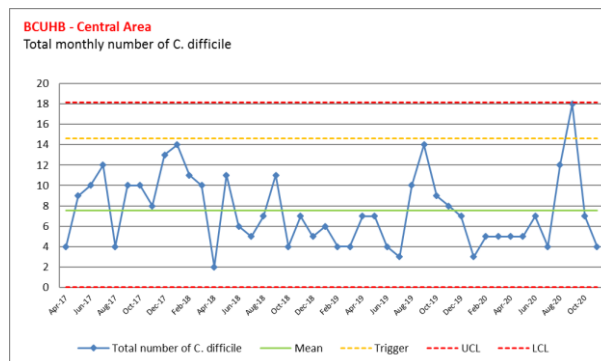
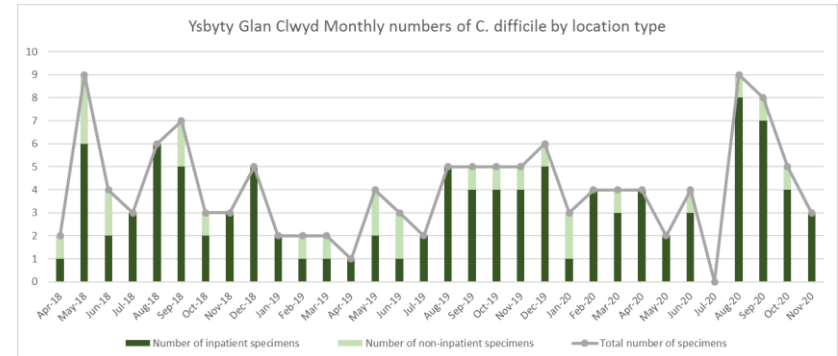
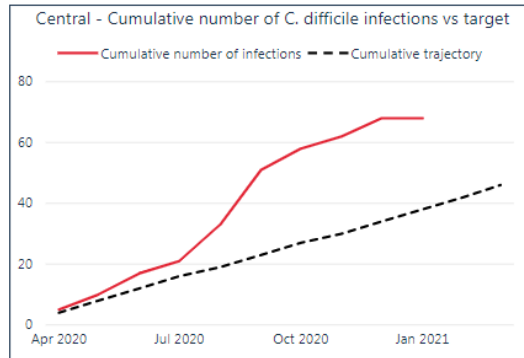
c.difficile Performance Health Board View November 2020



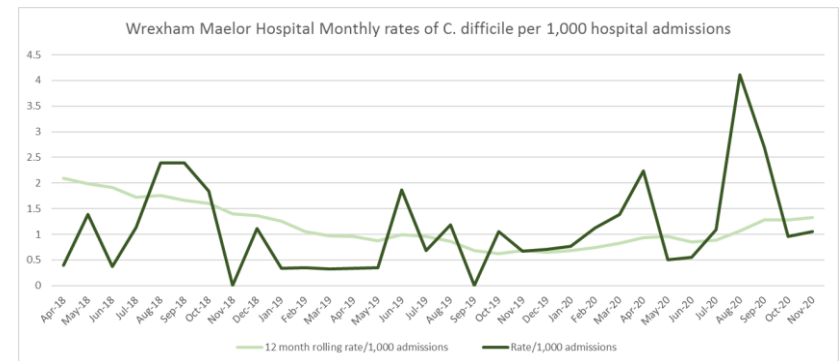
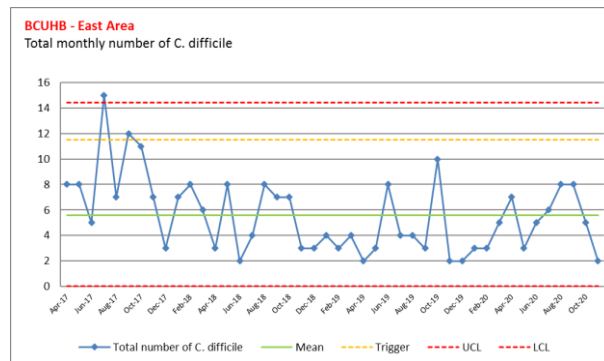
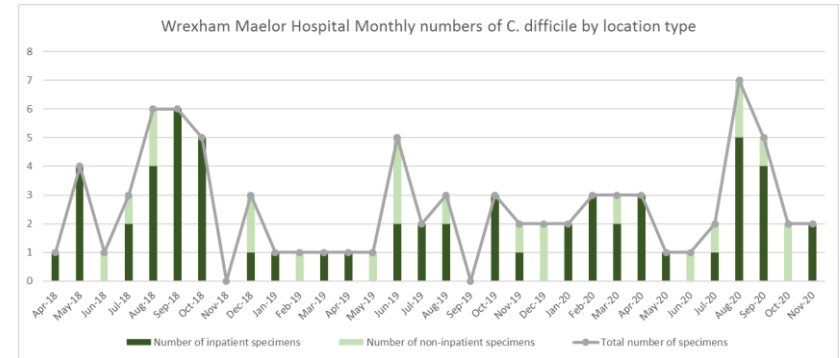
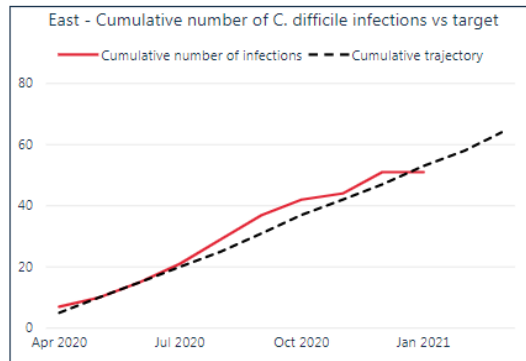
c.difficile Performance West Area View November 2020



c.difficile Performance Central Area View November 2020



c.difficile Performance East Area View November 2020



Infection Prevention CDI Assurances November 20 Update

- During Quarter 4, 2019/20 and Quarter 1 of 2020/21, an improved performance in CDI is noted across the three localities. The ability to perform a rolling programme of Hydrogen Peroxide Vaporisation (HPV) deep cleaning in Ysbyty Wrexham Maelor using a decant facility coupled with a decrease in antimicrobial prescribing resulted in sustained improvement during these months. Similarly in Ysbyty Glan Clywd, however, the ability to continue an uninterrupted programme was difficult due to regular loss of the decant facility. The lack of any decant facility in Ysbyty Gwynedd has meant any attempts to perform ward deep cleaning using HPV has relied on ward reconfiguration or refurbishment. There have been no such programmes in Community Hospitals and deep cleaning has been undertaken reactively.
- All localities saw an increase in the number of cases in August 2020 rising further in September. Whilst in the East, HPV deep cleaning had continued, this was during ward reconfigurations when creating COVID cohort capacity, and was not as focussed on areas experiencing an increase in diarrhoea related illness to included. HPV had been suspended in YGC.
- There has been an increase in antimicrobial prescribing during Quarter 4 and Quarter 1 in Central secondary care, this now improving following the roll out of the Antibiotic Review Kit across YGC in Quarter 2. Post Infection Reviews have demonstrated that the change in practice of remote prescribing in primary care resulted in an increase in the prescribing of the 4Cs (ciprofloxacin, co-amoxiclav, clindamycin, cephalosporins), which we need to reduce if we are to support reduction in *c.difficile*.

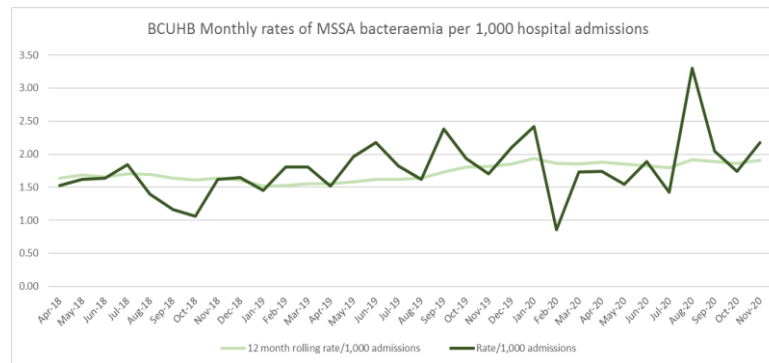
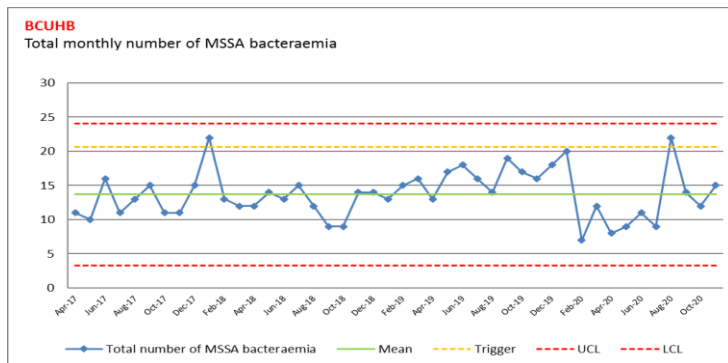
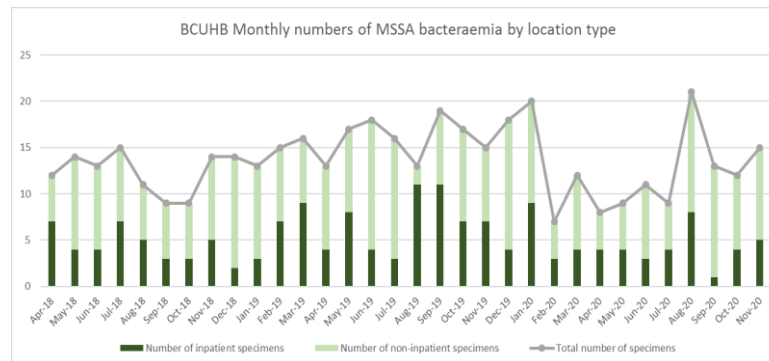
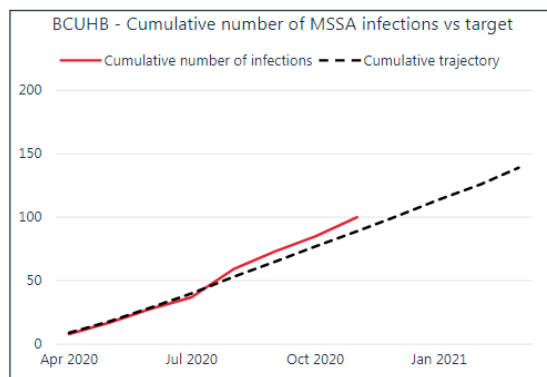
Infection Prevention CDI Assurances November 20 Update

- The lifting of COVID restrictions and the reintroduction of face to face primary care/community consultations may explain the CDI numbers coming back into control in Oct/Nov 2020
- The roll out of ARK across YGC (rolled out now across all secondary care)
- Primary care antimicrobial audits in out of hours with some interesting data for reporting next month
- Area Medical Director and Antimicrobial Pharmacist (West) letter sent to the GPs in relation to prescribing of the 4Cs has likely contributed to this reduction
- During Sept/Oct full ward deep cleaning using HPV was completed on six wards at YWM where a potential bioburden of *c.difficile* had been identified

Future Actions:

- The vacancy for antimicrobial pharmacist in East Area has now been advertised, once filled they will support prudent antimicrobial prescribing
- Roll out ARK across community hospitals should further support a *c.difficile* reduction over the coming months
- Hospital Management Teams have been asked to implement an uninterrupted programme of full ward HPV.
- A review of the new COVID Cleaning Standards and the existing cleaning responsibility framework is being undertaken
- The re-introduction of objective quality audits to monitor cleaning standards is planned

MSSA Performance Health Board View November 2020



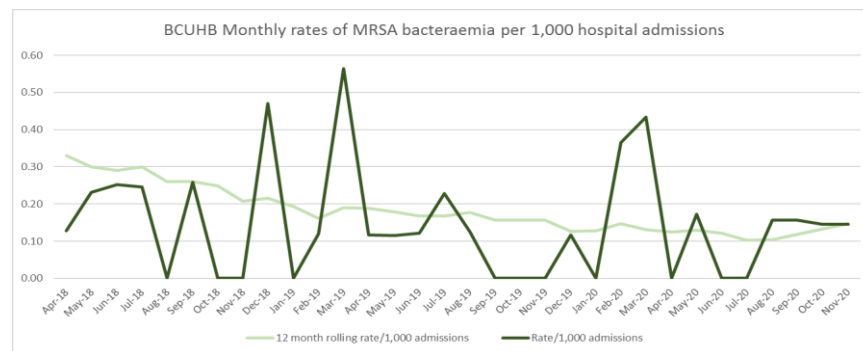
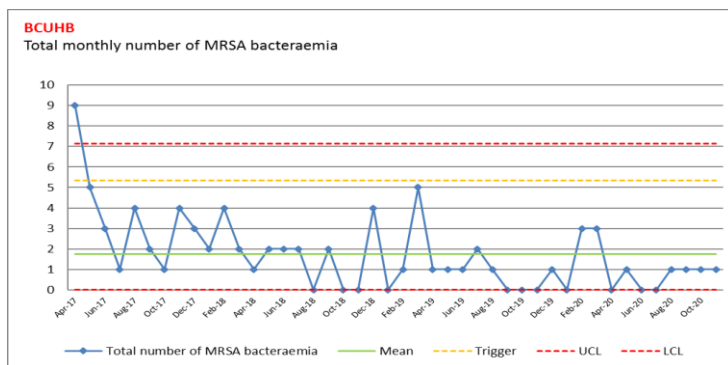
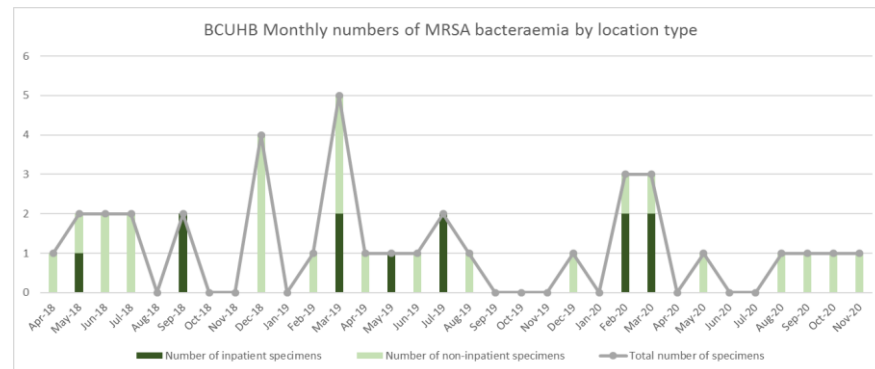
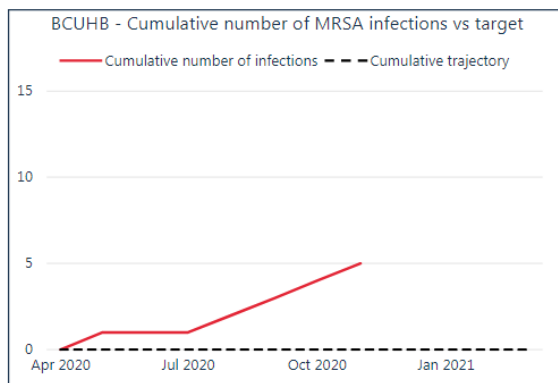
Infection Prevention MSSA Assurances November 20 Update

- All localities saw a sustained improvement in the number of cases of MSSA bacteraemia during Quarter 1 and Quarter 2, the reason for this being multifaceted.
- The majority of our MSSA cases are from samples collected in the Emergency Department and therefore of community onset and largely unavoidable. The reduction of hospital onset bacteraemia, and the reduction in vascular device associated bacteraemia is likely due to the continued focus of the Aseptic Non-Touch Technique now embedded firmly across the Health Board.
- The reduced activity in the Emergency Department during Quarter 1 and Quarter 2 due to COVID-19 must also be considered a contributory factor for the overall reduction in MSSA bacteraemia. This reduced activity likely resulting in fewer blood cultures being collected (awaiting data). The rise in cases again from August 2020 back to normal variation, may be a reflection of the returning activity in the Emergency Departments following the lifting of lockdown restrictions.

Future Actions:

- Our renal population remain a high MSSA bacteraemia risk. A protocol has been developed by the renal team, supported by microbiology and IPT to introduce monthly MSSA screening to include nose screen, line exit site, and buttonholes for all haemodialysis patients across the Health Board. Whilst ratification of this protocol through the Clinical Governance Group has been delayed, screening of such patients with appropriate decolonisation if positive is happening. Audit of compliance with this will commence once the protocol is formally ratified.

MRSA Performance Health Board View November 2020



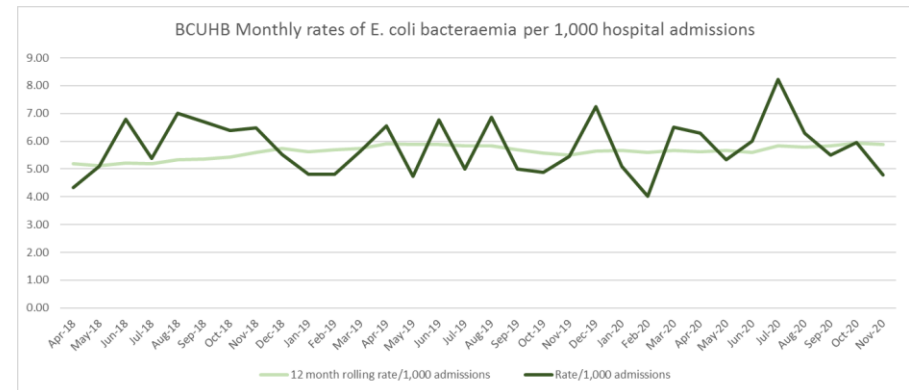
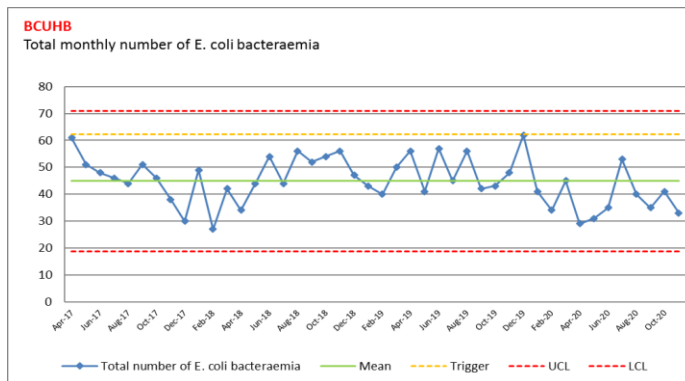
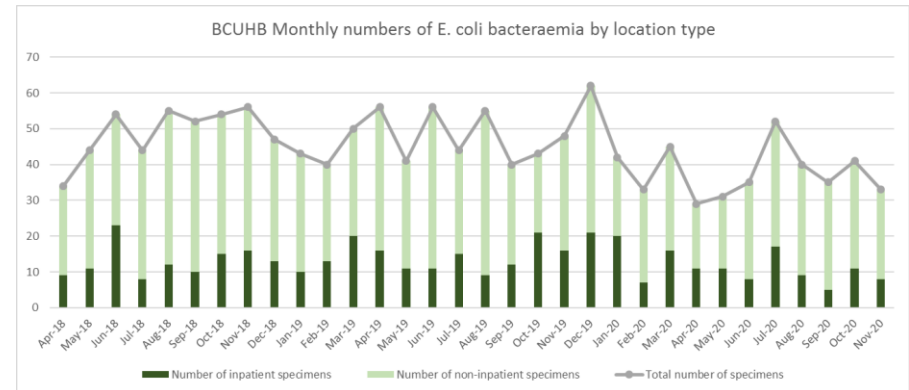
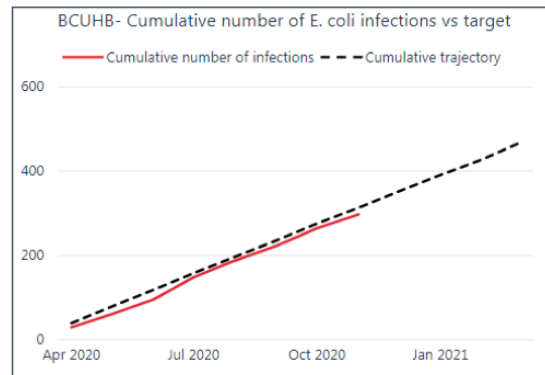
Infection Prevention MRSA Assurances November 20 Update

- There have been five MRSA bacteraemia year to date. of the 4, all were from blood cultures collected in the Emergency Department, attributed to community onset
 - One case reported from YG – the Post Infection Review deemed this to be a contaminant and therefore avoidable.
 - Two cases reported from YWM – both cases were deemed to be unavoidable due to patients being Intravenous drug users with injecting sites the focus of the infection.
 - Two cases reported from YGC – both of which were catheter associated and deemed unavoidable due to patient non-compliance.

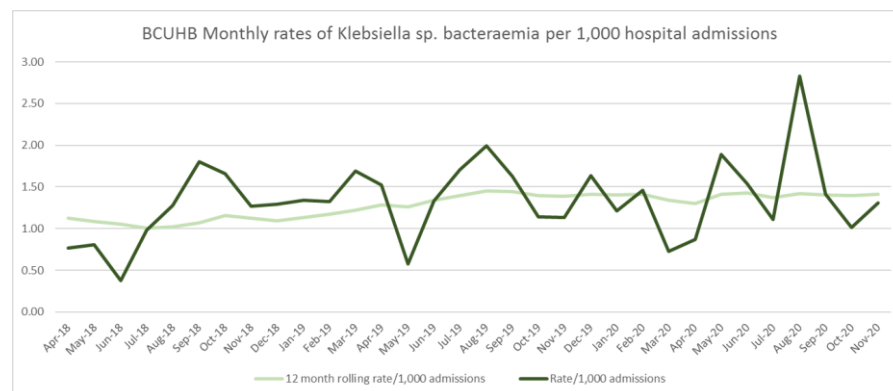
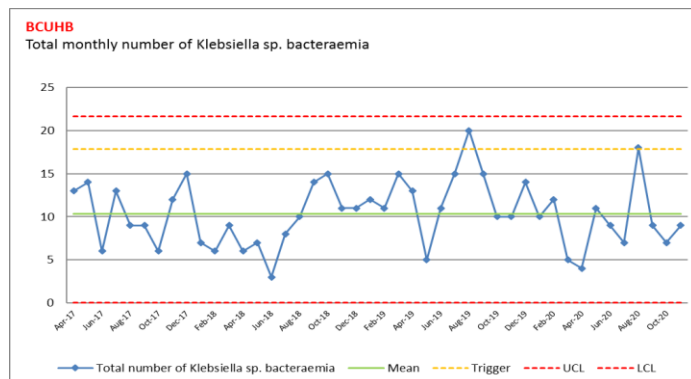
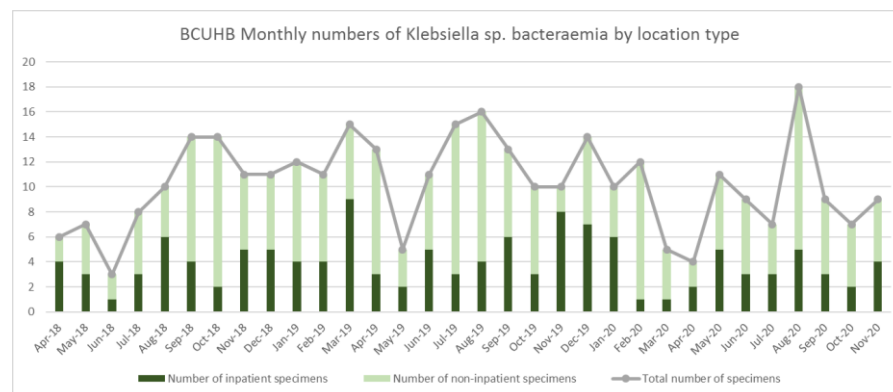
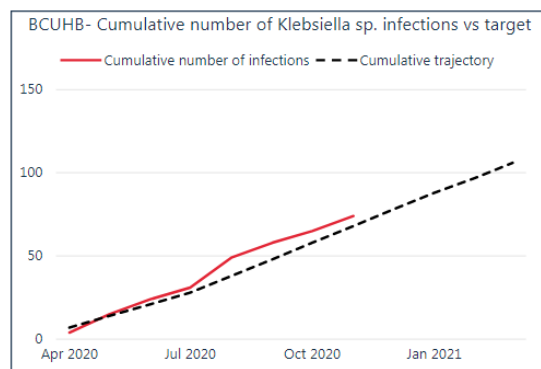
Future Actions:

- The ongoing focus around Aseptic Non Touch Technique (ANTT) across the health board particularly around the insertion and ongoing maintenance of intravascular devices has supported a sustained reduction in the number of vascular device related bacteraemia. However, Post Infection Reviews and the Deep dive highlighted the need to strengthen assurance around ANTT is when collecting blood cultures in the Emergency Department, through improving blood culture collection stickers in patients case notes
- A proposal to limit the number of people collecting blood cultures will be revisited – this has demonstrated successful reductions in contaminated samples in other organisations
- The newly formed urinary catheter task and finish group will address how to improve patient compliance through patient education and partnership training with local authority carers.

E.Coli Performance Health Board View November 2020



Klebsiella Performance Health Board View November 2020



Infection Prevention E.Coli & Klebsiella Assurances

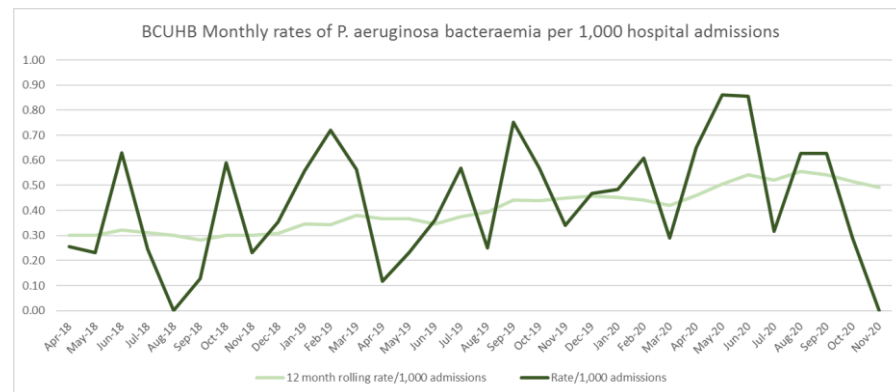
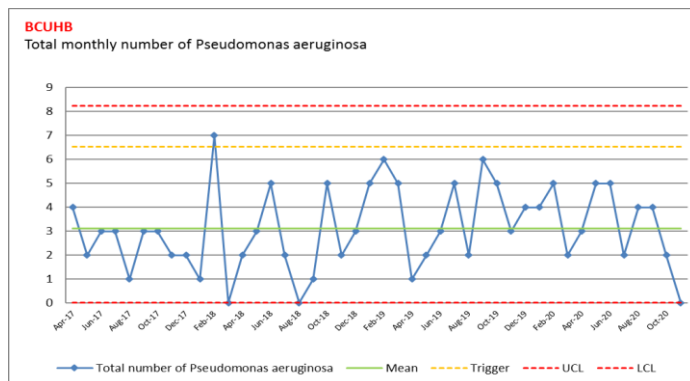
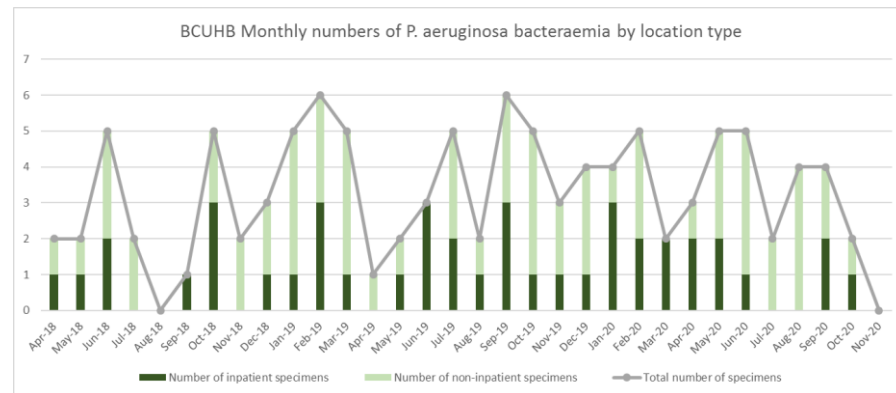
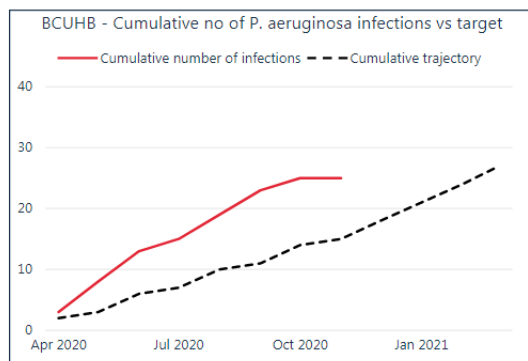
November 20 Update

- As with MSSA bacteraemia, the reduced activity in the ED during Quarter 1 and Quarter 2 due to COVID-19 must be considered a contributory factor for the reduction in E.coli bacteraemia and Klebsiella.
- The deep dive data would suggest many of these to be of community onset (samples collected in Emergency Department and assessment areas), not healthcare associated and due to endogenous infection (infection derived from within the body e.g. from the urinary tract, the biliary tract) and therefore unavoidable.
- However of the healthcare associated, avoidable cases these are largely urinary catheter associated.
- The last catheter associated urinary tract infection (CAUTI) audit (all inpatient areas) highlighted areas for improvement around documentation, reviewing the need for the catheter initially, prompt removal and trial without catheter and basic principles around catheter management
- The audit also identified that there were a number of patients who did not have a CAUTI on the day of the audit but had been admitted with one previously. This indicating that the CAUTI rate may be higher in the community (patient's own homes and care homes). Post Infection Reviews have commonly identified poor patient compliance resulting in traumatic removal of a catheter a contributory cause for bacteraemia.

Future Actions:

- A repeat CAUTI audit to include the community to be planned.
- The newly formed catheter task and finish group due to have a second meeting at the end of January will work towards progressing the implementation of the CAUTI associated actions described above, and others from the next CAUTI audit
- Strengthen PIR process to include community representatives to better understand the improvement actions that are needed to reduce incidents

Pseudomonas Performance Health Board View November 2020



Infection Prevention Pseudomonas Assurances November 20 Update

- Whilst these numbers are few, we still experience a lot of variation.
- The deep dive data would suggest many of these cases to be of community onset (samples collected in Emergency Department and assessment areas), not healthcare associated, and due to endogenous infection (infection derived from within the body e.g. wounds, respiratory tract) and therefore unavoidable. An Respiratory related infection and bacteraemia in patients with COVID-19 has been recognised.

Future Actions:

- Strengthen PIR process to include community representatives to better understand the improvement actions that are needed to reduce incidents

Covid – 19 Performance Overview

Community levels:

There continues to be increased incidence in all areas of North Wales with the exception of Anglesey. There is still wide geographic variation and the highest rates are in the East.

Care homes:

Care homes remain a high concern in terms of cases, staffing and the ability of services to provide enhanced support. There are a number of complex outbreaks across North Wales.

Admissions:

Community onset admission rates are more stable; however hospital occupancy remains high in the East driven by factors including healthcare acquired infection, and length of stay and at present we expect admission numbers to continue to rise. There are concerns for critical care capacity, learning from the South Wales position and spread.

Primary Care:

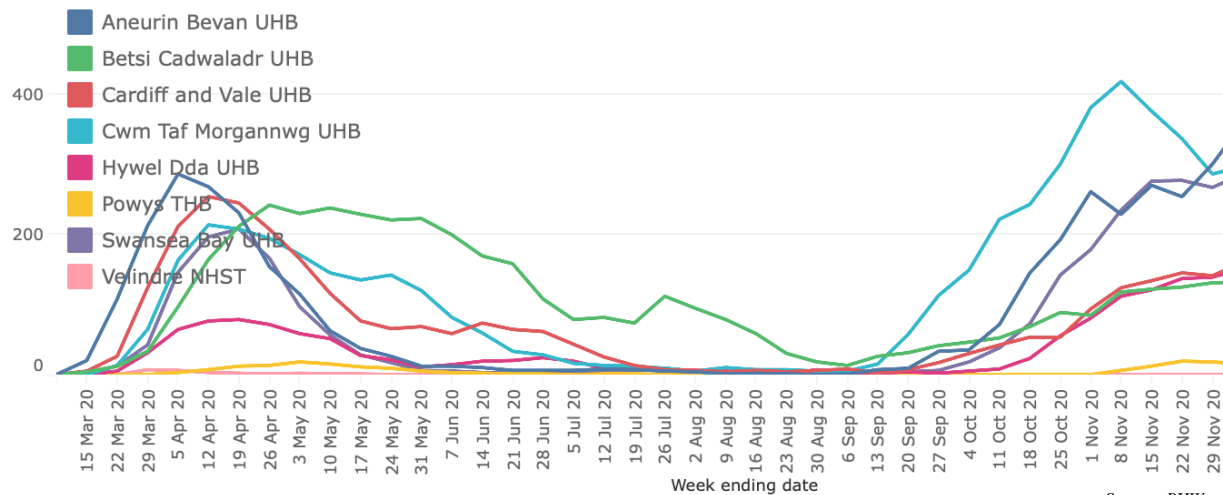
Latest data show suspected Covid consultations in day-time general practice has increased post-firebreak, and similarly OOHs and NHS Direct / 111. Information caveats remain around the choice of coding being subject to some subjectivity.

Benchmarking:

There are higher rates in the broader North West area rather than specifically the border areas around Chester.
Levels in Wales are continuing to rise.

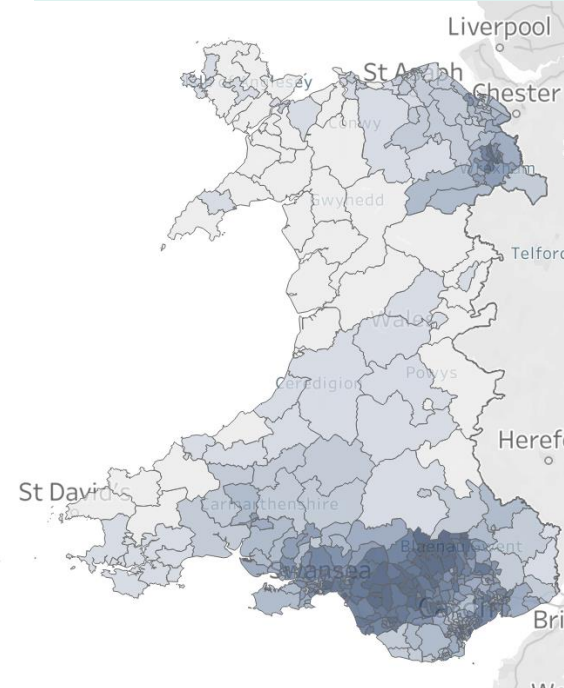
All Wales Covid-19 Performance

Weekly number of inpatient confirmed cases in all hospital wards, by health board of admission



Source: PHW

Confirmed cases area of residence



Source: PHW

General Practice Acute Respiratory Consultation Rates

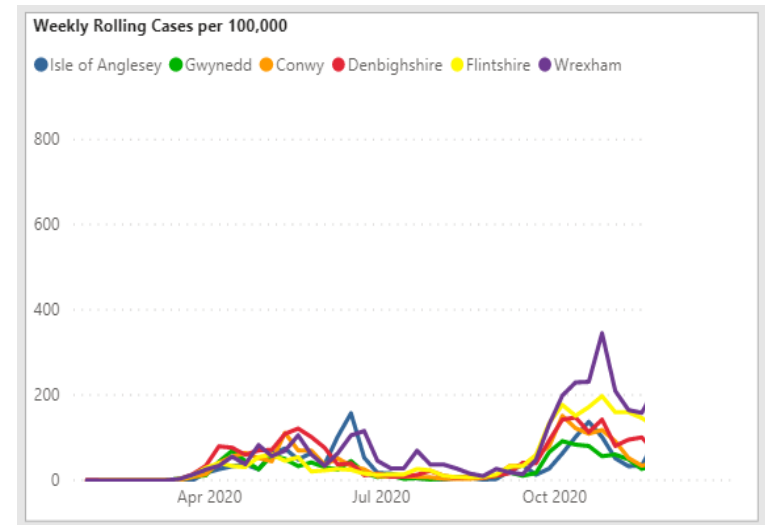
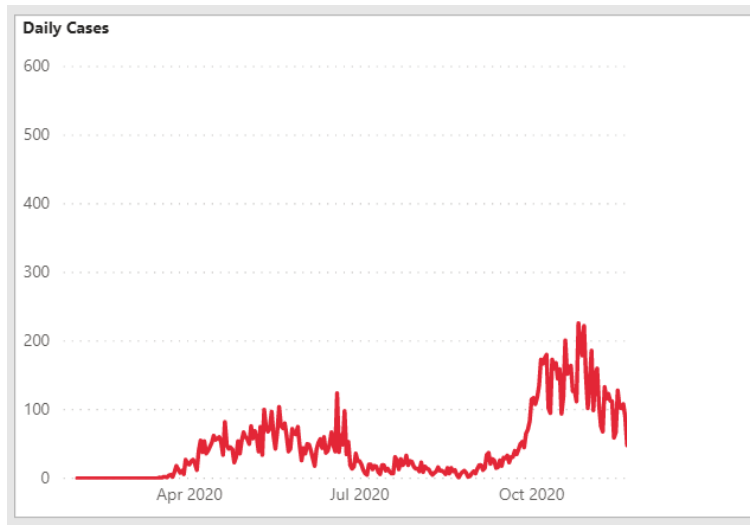


Source: PHW

Analysis:

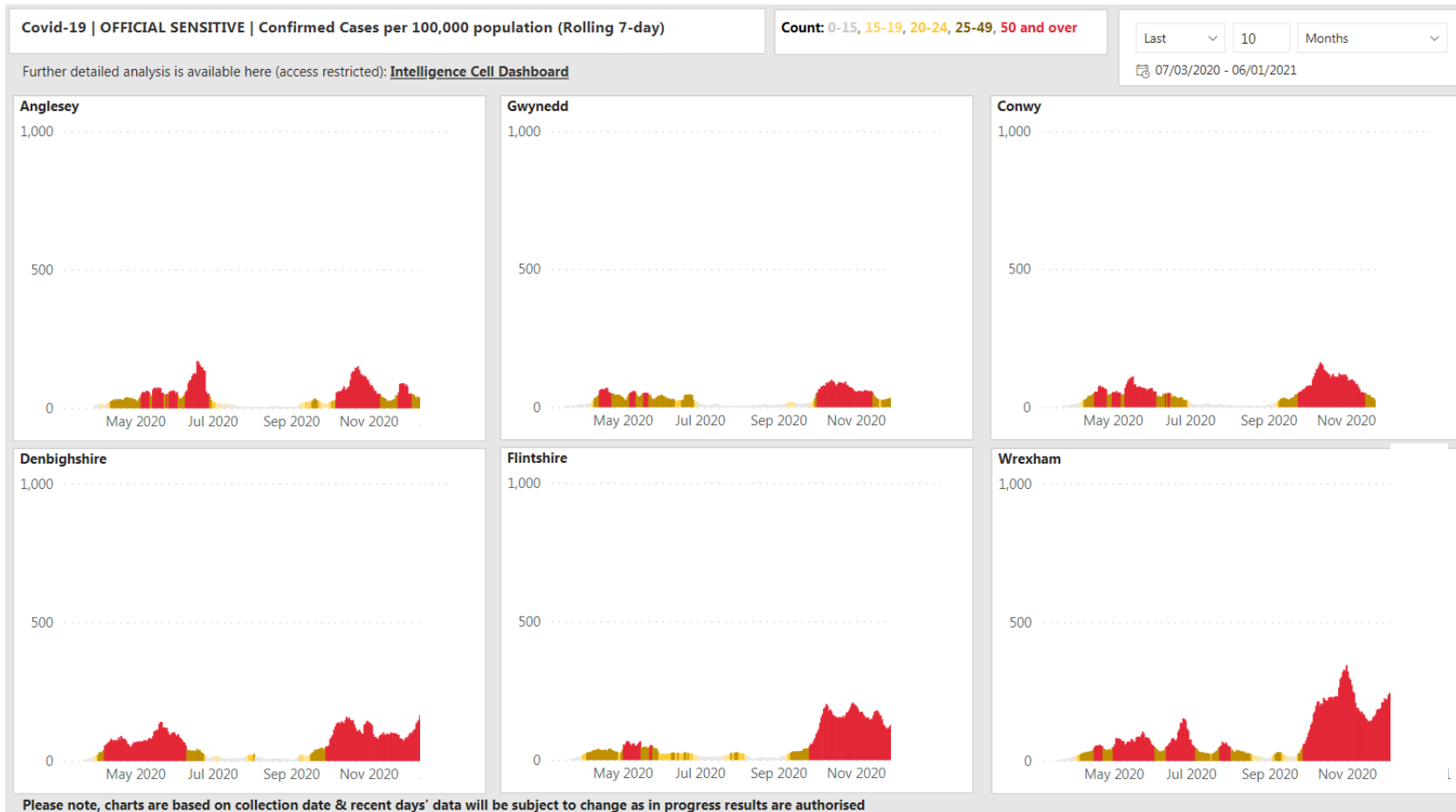
Covid-19 consultations in General Practice reduced and stabilised during the firebreak. Levels have risen since. There are similar patterns in respect of acute respiratory infections. As reported previously, there is a degree of subjectivity in coding of consultations. In hours general practice is reporting sustained pressure and are quoting 20% higher consultation rates compared to pre-Covid.

BCUHB Covid-19 Daily Cases



sample collection date

BCUHB Covid-19 Daily Cases per 100,000 population



BCUHB Internal Covid-19 Information

Covid-19 | OFFICIAL SENSITIVE | Testing Summary

[Please click here to access LIMS patient detail report](#)

Local Authority

All

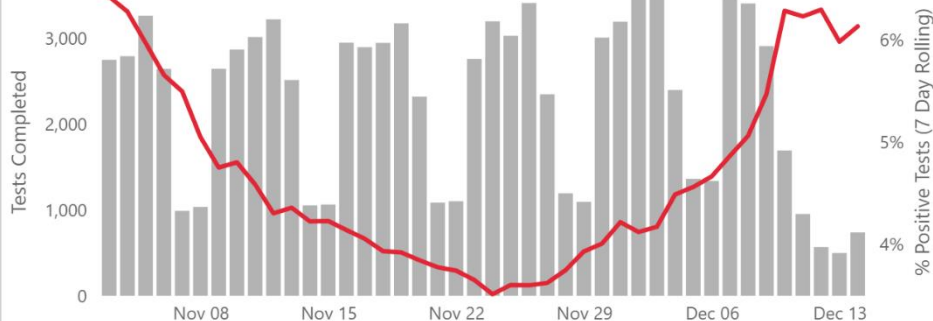
Last 6 Weeks

11/3/2020 - 12/14/2020

Please note, charts are based on collection date & recent days' data will be subject to change as in progress results are authorised

Daily Testing

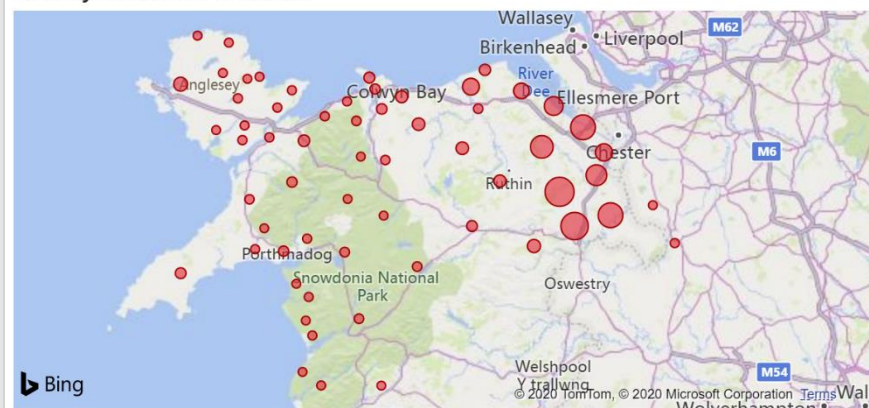
● Tests Completed ● % Positive Tests (7 Day Rolling)



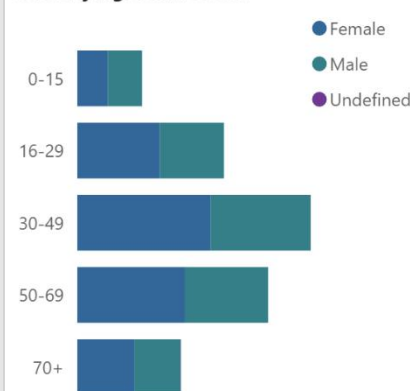
Weekly Cases by Age Band

Age Band	02/11/2020	09/11/2020	16/11/2020	23/11/2020	30/11/2020	07/12/2020	14/12/2020
0-15	31	50	66	59	71	95	1
16-29	131	142	104	122	193	165	1
30-49	184	218	194	221	288	249	8
50-69	174	203	164	164	214	210	13
70+	129	96	108	141	116	124	18

Cases by Postcode of Residence



Cases by Age Band & Sex



Cases by Qualifier Category

(Blank)	3,006
None of the Above	526
Healthcare Worker	314
Care Home Resident	270
Care Home Worker	91
Educational instituti...	49
Hostel or supported...	42
Other Essential Wor...	38
Emergency Services...	6
Prison or detention ...	4

Location of Covid-19 Known Cases

Covid-19 | OFFICIAL SENSITIVE | Confirmed Cases per 100,000 population (Rolling 7-day)

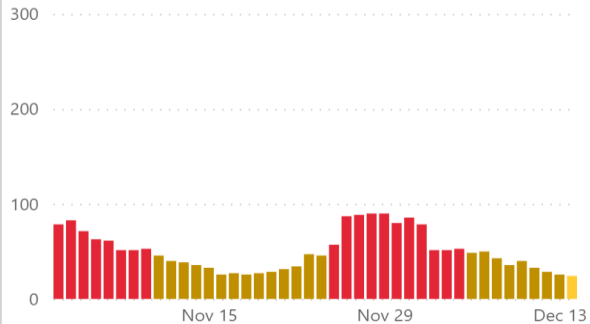
Count: 0-15, 15-19, 20-24, 25-49, 50 and over

Last 6 Weeks

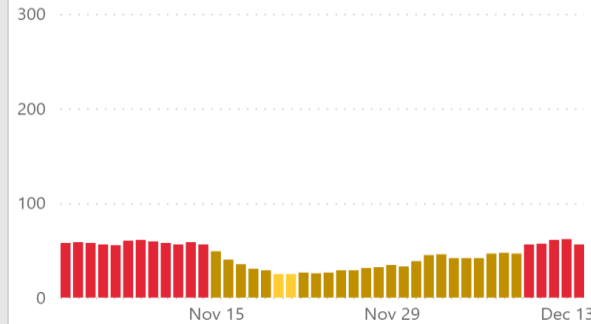
11/3/2020 - 12/14/2020

Further detailed analysis is available here (access restricted): [Intelligence Cell Dashboard](#)

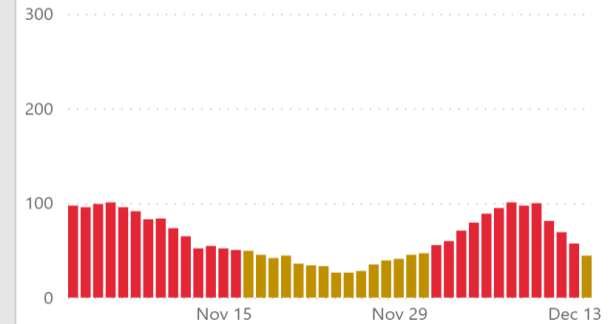
Anglesey



Gwynedd



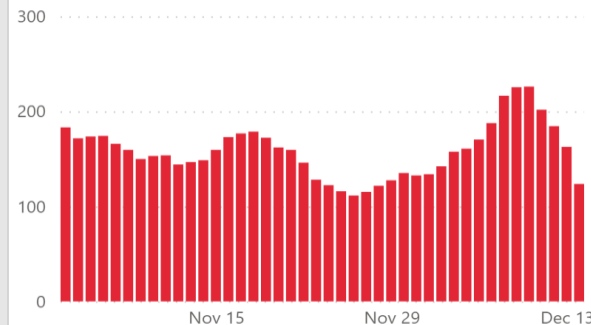
Conwy



Denbighshire



Flintshire



Wrexham



Testing results (community + hospital): note – from 11 December, non-NHS provider data is not included.

2nd wave: We saw levels increase in November. These then reduced following the firebreak, but levels are now increasing again in most of our LA areas.

Covid-19 Affected Age Groups

Covid-19 | OFFICIAL SENSITIVE | Confirmed Cases by Age Band

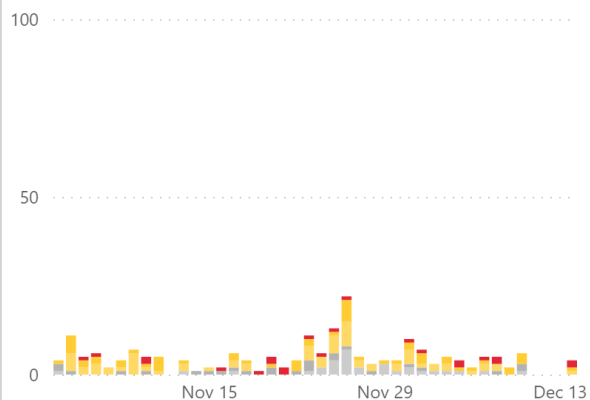
Age: 0-15, 16-29, 30-49, 50-69, 70 and over

Last 6 Weeks

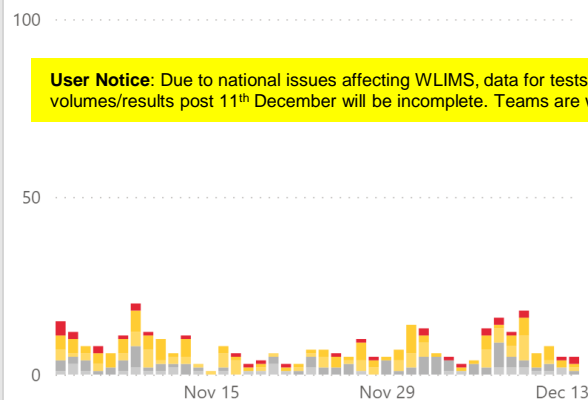
11/3/2020 - 12/14/2020

Please note, charts are based on collection date & recent days' data will be subject to change as in progress results are authorised

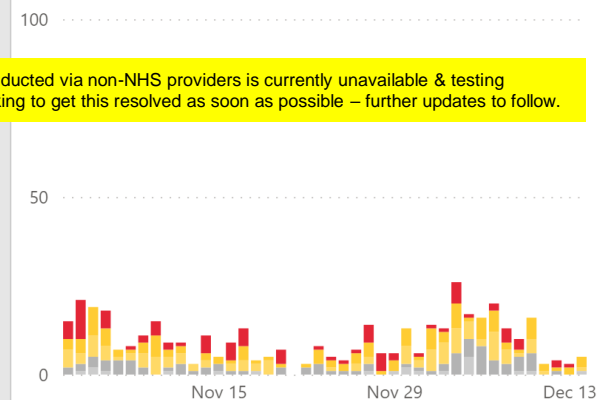
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Gwynedd

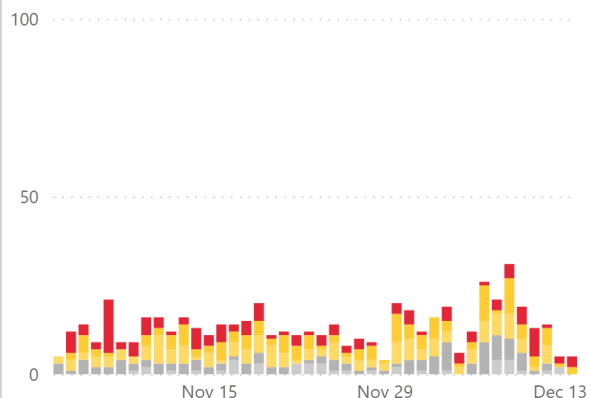


Conwy

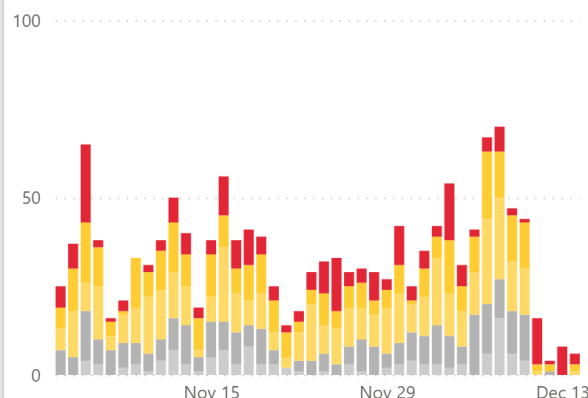


User Notice: Due to national issues affecting WLIMS, data for tests conducted via non-NHS providers is currently unavailable & testing volumes/results post 11th December will be incomplete. Teams are working to get this resolved as soon as possible – further updates to follow.

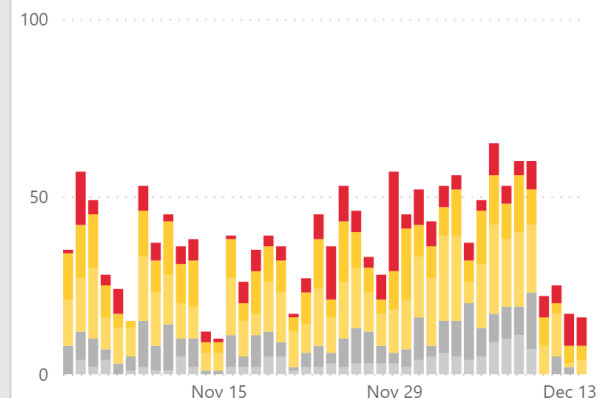
Denbighshire



Flintshire



Wrexham



Summary of Covid-19 work programme

Theme	Governance of Policies (Outbreak Related)	Incident Reporting	Quality and Safety	Data Quality and Reporting	Communications (Outbreak Approach)	Environmental
1	Standardised set of Policies and Procedures to be established to support the management of an outbreaks.	Review of current incident reporting methodology, BAU and outbreak distinction needed?	PIR reports to be standardised with proforma approach.	Single data source, with all policies, including updates.	Standard communications policy to cover outbreaks and SI's e.g. Medical Staffing forums.	Isolation Facilities - Review of current side rooms and negative pressure facilities.
2	All new SOPs and Policies that were developed as part of Wrexham outbreak to be rolled out across HB as initial step.	Assure that 'up to date' incident reporting policies are embedde/reinforced across whole HB.	Standard regular Audit Reporting - PPE, Hand Hygiene, Screening of all Admissions, Staff Movement and Patient Transfers.	BAU reporting, clear plus additional requirements if outbreak is declared.	Communication to all staff of key changes and updates and their individual responsibility.	Guidance to review bed spaces - assurance that consistent across HB.
3	Agreed Policy update process, ensuring always up to date.	Clear responsibility for reporting, escalation and review and managing lessons learned.	Cleaning audit information.	Trigger Reporting finalised, roll out across HB.	Communications to external NHS bodies	
4	Production of a SOP that defines both BAU and the additional requirements relating to an outbreak, data/reporting battle rhythm, including escalation structure.		Embed and assure donning and doffing guidance/training.	Separate/additional reporting to be put in place once outbreak declared.		
5	Assurance process that all policies are embedded across the HB, evidence the roll out.			Review of key departmental resource, or roles and responsibilities.		
6	Specific Policies/Procedures and SOPs identified, part of 1&2? - Temp staffing - Mortality Reviews - PPE usage - Home working policy			Consider standard investigation protocol for staff positive cases.		

To add to plan

- Swabbing
- De cluttering/social distancing on wards
- Impact assessment - elective cancellation, Treat and Transfer ED
- Case Definitions
- IRIS, where does it fit?
- Weekly Audit data
- Granular death reporting
- Epidemiology reporting/input
- WG Surveillance Form
- LOS review of data - Wrexham specific

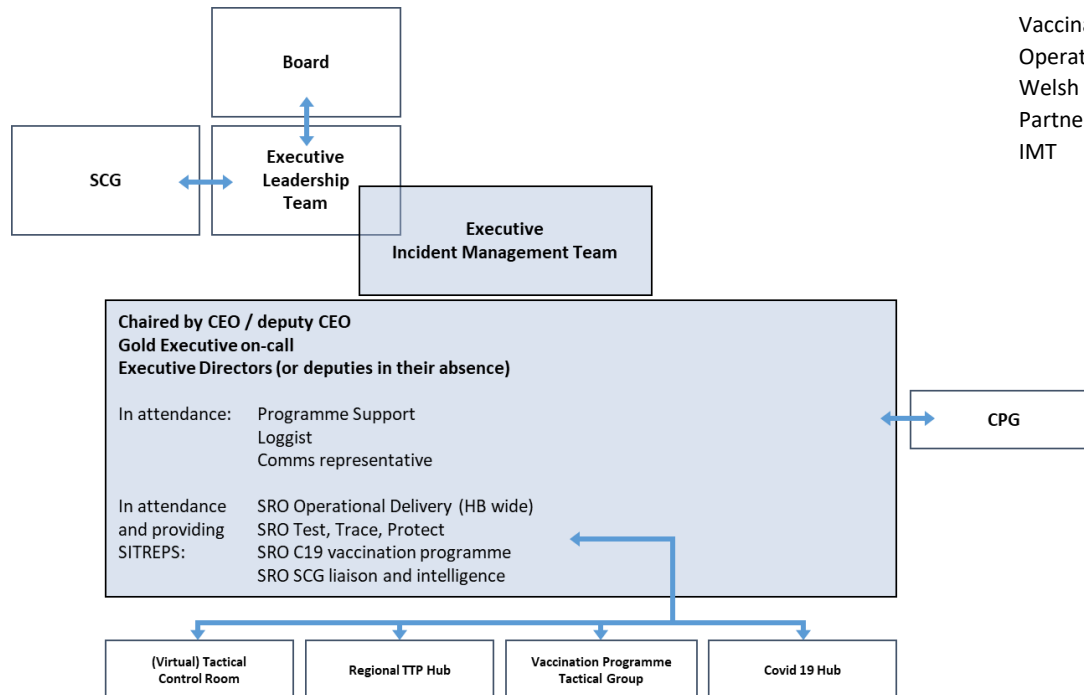
Key Issues

- Doubling rates in north Wales are currently approx. 11 days, with an R rate of 1.27.
- Modelling – our trajectories in north Wales continue to be different from those experienced either in south Wales or north west England. However, all modelling continues to show potential peak end January / early February (**we are now 30 days from modelled predicted peak activity.**)
- Care homes - additional resource has been put in place to support outbreaks. The scale of outbreaks in a small number of care homes remains concerning.
- EU end of transition period - updates and partnership issues to be routed through the Covid-19 response SCG initially pending further developments. National Supply Disruption Response and Emergency Co-ordination mechanisms are anticipated to be standing up with effect from 28 12 20 and BCUHB will respond to co-ordination and reporting requirements.

Actions

- Hospital outbreak management - there are currently cases being managed at Wrexham Maelor, Chirk and Mold hospitals; Ruthin community hospital; and Mental Health facilities at Heddfan, Wrexham and Bryn Hesketh, Colwyn Bay. Daily reporting to Welsh Government in place for outbreaks. The hospital inpatient management toolkit has been completed and is consistent with recently updated Welsh Government guidance
- First delivery of vaccinations to Wrexham Maelor Hospital staff commenced on 8 December. 965 doses delivered in the first week. BCUHB is piloting delivery of vaccines for care home staff.
- As part of the Surge Prevention and Protection plans we need to ensure that we can fully resource increased testing in our communities and in our staff groups together with the rollout of the COVID19 Vaccination.
- With Effect from 18 December establishment of an Incident Management Team meeting to provide executive oversight and agile decision making. This is aligned to the structures in place with our partner agencies and consistent with other Health Boards across Wales.

Covid-19 Incident Management Structure



Schedule:

Vaccination coordination meeting	9.00 am
Operational tactical meeting	10.00 am
Welsh Government SITREP submissions	11.30 am
Partnership IMT Mondays	12 noon
IMT	12.30 pm

Covid-19 Outbreak Criteria

A COVID-19 outbreak has been defined as:

- Two or more cases in a single setting (e.g. in a single ward or having shared a location) that have become symptomatic or detected on screening on or after day eight of hospital admission and within 14 days of each other
- **Level 1** - confined to ward
- **Level 2** - extending across multiple areas of a site/hospital, or affecting an entire site
- **Level 3** - affecting multiple sites across BCUHB, or which presents a significant risk to a large number of patients, staff or visitors, and/or requires significant control measures such as the closure of large numbers of wards or facilities and services, and/or threatens Health Board ability to meet its emergency or elective commitments
- 31 August 2020 Central IPT declared a Level 2 outbreak later developing into a Level 3 outbreak when it affected the community hospitals. The outbreak was managed by a Strategic Outbreak Control Team meeting daily supported by Public Health Wales and was successfully closed on the 6 November (28 days after the last confirmed HCAI)
- 26 October the East IPT declared a Level 2 outbreak later developing into a Level 3 outbreak when it affected the community hospitals and the Mental Health Unit. The outbreak remains ongoing and whilst the daily strategic outbreak control team (OCT) meetings have been stepped down, daily operational OCT meetings have continued.

Control Mechanism - Diagnosing Covid-19 Outbreaks Genetic Analysis

- Patient and staff positive swabs were sent to a specialist team to look at the genetic material of their infection to help support the outbreak investigation. Every virus type has a specific pattern of DNA, and if we know this in a coronavirus sample, we can identify its unique DNA fingerprint. This means we can tell how similar one person's coronavirus infection is to someone else's, helping us track where they might have caught it. We also looked at the genetic type of cases that had been picked up in the community.

Central Outbreak

- This was a healthcare-associated outbreak among patients.
- There were two spate outbreaks – one was mostly patients who had become ill in the hospital, and a later one was thought to be linked to the increase in community cases.
- We were able to use the genetic typing to support infection control and public health decisions.

East Outbreak

- Genetic analysis of samples supports that there were many types circulating in the community and in the hospital.
- A couple of individual clusters of cases associated with specific wards were highlighted and are under investigation

Deep Dive Gaps in Control – Learning & Action

Priorities	Deep Dive Learning	Success Factor
Hands	<p>Strengthen Hand Hygiene</p> <ul style="list-style-type: none"> After contact with the environment <ul style="list-style-type: none"> Bare below elbows Patient hand hygiene 	<p>Review daily, weekly, monthly infection prevention audits performed at ward level</p> <p>Daily Matron quality checks performed</p> <p>Daily observational quality check programme performed by IPT</p>
Face	<p>Reinforce appropriate use of facemasks</p> <p>Patients to be encouraged to wear facemasks</p>	<p>Strengthen habit forming improvements</p> <p>Targeted support</p> <p>Rapid escalation</p>
Space	<p>Ensure adherence to social distancing especially during staff break times</p>	<p>Refocus communication campaign and messaging</p>
Personal Protective Equipment	<p>Ensure appropriate use of PPE</p> <ul style="list-style-type: none"> Gloves & aprons not always worn within two metres of the patient Gloves and aprons not always changed between patients <ul style="list-style-type: none"> Incorrect removal of aprons 	<p>Risk Assessments reviewed</p> <p>Ward based safety officers to support safe behaviour</p>

Deep Dive Gaps in Control – Learning & Action

Priorities	Deep Dive Learning	Success Factor
Cleaning	<p>Strengthen C4C audit programme</p> <p>Increase domestic resource to accommodate enhanced cleans in all amber areas</p>	<p>Reviewed frequency, requirements and escalation of C4C audits in all areas</p> <p>Re-implemented the quality control objective audits e.g. evaluclean</p> <p>Reviewed the cleaning framework responsibilities</p> <p>East - Increased domestic hours on all wards each evening (except weekends) to accommodate high touch points</p> <p>Operational outbreak control team reviewed domestic resource</p> <p>Cleaning standards Reviewed</p>
Clutter	<p>Declutter clinical/patient areas</p> <p>Review what is required in patient/clinical as not enough storage facilities</p>	<p>Assurance monitoring through daily ward COVID audits</p> <p>Quality checks performed by Matron & IPT</p> <p>Additional containers sourced as an interim measure</p> <p>Accommodation reviewed to enhance storage arrangements</p>

Deep Dive Gaps in Control – Learning & Action

Priorities	Deep Dive Learning	Success Factor
Prompt detection	Missed screening opportunities	<p>Sticker developed to go onto patients notes as a prompt to screen</p> <p>Day 5 screening piloted in East and rolled out across HB</p> <p>Clear compliance information (IT enabled) and robust reporting</p>
	Long stay patients incidentally found to be positive on discharge screening	Further discussion required to review if we need to increase screening
	Low level description of positive results not always recognised	IPSG to agree the draft SOP for the management of low level COVID patients.
Isolation/Segregation	Delay in transferring confirmed cases to COVID ward or side room	<p>Develop clear escalation process for prompt isolation</p> <p>Clear compliance information (IT enabled) and robust reporting</p>
	Bay doors not always closed due to restricted visibility for at risk patients	<p>Keep patients safe and have door closed</p> <p>Staff encouraged to datix when bay doors cannot be closed</p> <p>Wards reviewed by Estates where visibility is an issue and provide alternative solution.</p>

Deep Dive Gaps in Control – Learning & Action

Priorities	Deep Dive Learning	Success Factor
Patient Movement	<p>Patients need to go to the right place and stay there (limited movement & safe transfer)</p> <p>Index cases from ED/CDU/assessment areas contributing to early clusters as:</p> <ul style="list-style-type: none"> a) Moved prior to positive result b) Contacts testing negative already moved to base ward prior to index case being reported as positive <p>Strengthen bed tracking</p>	<p>Clear directive developed to isolate / cohort / place patients</p> <p>Directive not move patient until SWAB result is known</p> <p>Patient movement audits presented to the Outbreak Control Team</p> <p>Bed tracking included in the daily COVID checklist.(IT enabled)</p>

Our Infection Prevention Approach

- **Raise the focus** – Enhance targeted communications campaign to share simple clear messages, different formats, same messages
- **People** – Training in a clear and simple way to do the right thing
- **Process** – Simple, easy to understand governance, plans, processes and guidelines for us to follow that are inline with current good practice
- **Practice** – Checking what we do and how we do it. Supporting good habits
- **Performance** – Agreed key performance indicators that align to the above. Clear accountability and line of sight from Board to Ward (one version of the truth)
- **Praise** – Strength based approach, understand what is good, what has gone well, foster pride and share widely

Infection prevention is everyone's business

1. Treat everybody including ourselves as if we are infectious, because anyone could be
2. If we have to breach ours and someone else's safe space ensure we and they are appropriately protected
3. Changing habits takes time. We all need to support each other to do the right thing every time

**PROTECT
OURSELVES**

**PROTECT
EVERYBODY**

SAVE LIVES