A&B HSCP Transforming Together
Argyll & Bute Health & Social Care Partnership

Integration Joint Board

Date of Meeting: 27 May 2020

Title of Report: COVID-19 mobilisation readiness update and look forward to living and operating with COVID-19

Presented by: Stephen Whiston, Head of Strategic Planning and Performance

The Integration Joint Board is asked to:

- Consider the COVID-19 escalation status update and projections to 31st August 2020
- Review the look forward planning themes/implications to inform our resumption of "business as usual" living with COVID-19.

1. Executive summary

This paper reviews the current Public Health projections for the spread of COVID-19 in NHS Highland and how this information has been used to provide a modelling update of demand and an assessment of capacity. It highlights when and where the current and planned bed capacity does not meet expected demand. Additionally, this paper reflects considerations of the new normal arising out of the implications of COVID-19 for health and social care.

The material points are summarised below

Projected Demand
Peak NHS demand in Argyll and Bute is projected to occur in the Week of the 31st May, with 21 beds required for critical care for COVID-19 in NHSGG&C and 42 other hospital beds required for COVID-19 in Argyll and Bute and 14 in NHSGG&C.

Critical Care
NHS GG&C have modelled Argyll and Bute requirements and also have confirmed their peak week occurring at the beginning of June.

The SAS are in the process of assessing their resources to support the transfer activity into critical care. During peak week the model predicts there will be 13 critical care transfer to NHS GG&C

General Beds
Argyll and Bute non-COVID Emergency Inpatient activity 1st April to 30th August 2019 was 1741 admissions with an average length of stay of 5.2 days. If we were to mirror this, then in May during peak week we could expect current bed capacity to just be sufficient to meet expected demand. However a number of contingency beds should be available.

COVID-19 Assessment Centres
The current Community Assessment Centre (CAC) resource can see a maximum of 450 patients if all rooms utilised against an estimated peak demand of 95 to 100 patients in peak week.

Social Care and Community

The social care response to COVID-19 has focused on undertaking essential/emergency work only and responding to the impact of our revised social behaviour i.e. Social Distancing, Shielding and outbreak response in care homes and care at home and rehabilitation and reablement of patients recovering from COVID-19. Redesign of care at home services to respond to need and supporting care homes to support residents at this difficult time.

The setup of mental health assessment centres in line with Scottish Government guidelines have been implemented across Argyll and Bute to ensure quick assessment for those with mental health and/or addictions needs, keeping footfall from Accident and Emergency Departments

The limited testing capacity means the prevalence in the community is unknown although a 9% infection rate would indicate nearly 8,000 people will be infected

"Business as usual" living/working with COVID-19

This paper also provides an indication of what the HSCP need to consider as a thematic look forward for what our health and care services will require to consider and respond to through to 2020/21 in managing COVID-19 as our new normal.

2. Public Health Projections

A range of scenarios have been explored in order to plan for the expected demand associated with COVID-19. We have used a set of assumptions produced by the Scottish Government on 07/04/2020. They are based upon UK work led through the UK Scientific Advisory Group for Emergencies (SAGE), Imperial College epidemiological modelling, and modelling work from the four countries of the UK, applied to Scotland by the Scottish Government's COVID Modelling and Analysis Division, and then applied to the NHSGGC population. The model provides information on estimated COVID-19 cases, their impact on hospital bed numbers and ITU bed numbers, and fatalities. These estimates are based on 40% compliance with social interventions. Social interventions applied include home isolation, household quarantine, lockdown for whole population, stopping mass gatherings, and closure of schools and universities. While this data is more optimistic than previous models used, NHSGGC continues to work towards maximum mobilization.

Our current best estimate is that we are around week 7 of the pandemic in Scotland, although different areas of Scotland are likely to be in different weeks.

The NHS Highland revised assumptions (14th April 2020) indicate the following impact of COVID-19

Table 1 - NHS Highland COVID-19 disease model

	Change variables:
Select area:	Argyll & Bute
Infection (attack) rate	9%
Symptomatic case rate	66%
Hospitalisation rate	6.0%
Hospitalised patients requiring ICU	33.9%
Critical Care age threshold (≥ value)	
ICU deaths	25.0%
Infection Fatality Rate (IFR)	1.5%

Population	86,260
Level 3 cohort	86,260

In the A&B context over the period April to End of August this equates to:

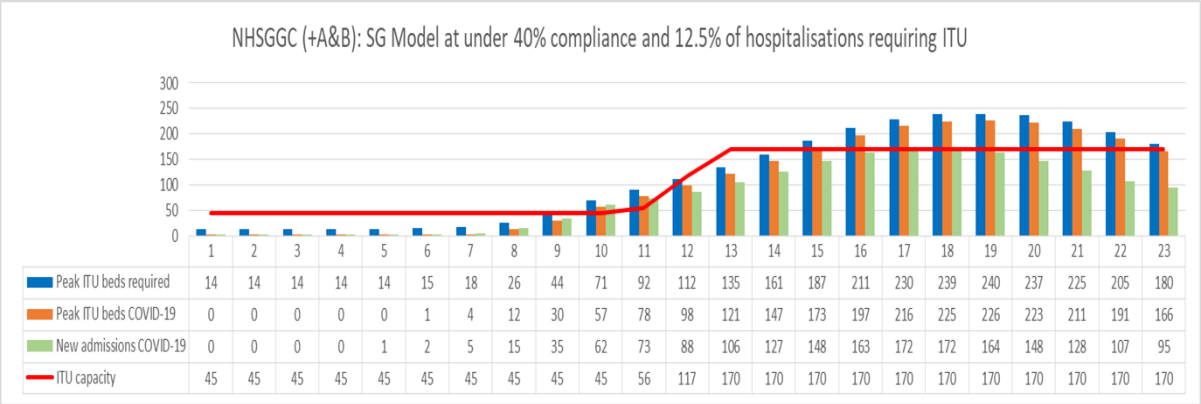
- Around 8,000 infected people
- 5,300 who are symptomatic
- Around 1,200 requiring further assessment
- 316 additional hospital admissions, and within the number, almost 108 critical care admissions
- 120 excess deaths.

Over the coming weeks we will model our actual activity against projections to provide some assurance around the shape and length of the projected demand curve.

3. Critical Care

The table below shows a projection of the new admissions, and total COVID-19 patients in NHSGGC critical care beds during the 23 week pandemic phase peaking at 226 in week 19 (end of May/June). This also includes expected admissions from Argyll and Bute through their current critical care pathway with NHSGGC. This brings the GGC proportion of national ITU activity to 28.94%.

NHSGG&C are carrying out further work to assess the expected non-COVID activity in ITUs, as this is likely to increase demand by around 14 beds in each week bringing the peak to



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Peak ITU beds required	14	14	14	14	14	15	18	26	44	71	92	112	135	161	187	211	230	239	240	237	225	205	180
Peak ITU beds COVID-19	0	0	0	0	0	1	4	12	30	57	78	98	121	147	173	197	216	225	226	223	211	191	166
New admissions COVID-19	0	0	0	0	1	2	5	15	35	62	73	88	106	127	148	163	172	172	164	148	128	107	95
ITU capacity	45	45	45	45	45	45	45	45	45	45	56	117	170	170	170	170	170	170	170	170	170	170	170

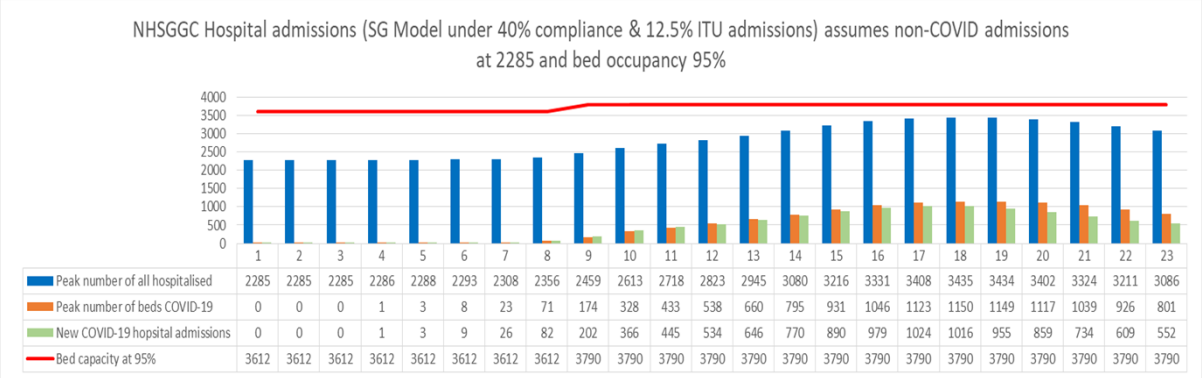
240.

NHSGG&C has committed to expand adult Intensive Care beds to 170. At that stage of expansion virtually all theatre staff will be supporting ICU and other surgical activity will be minimal. No expansion of NICU or PICU has been planned given low levels of activity.

4. Non-Critical Care

4.1 NHSGG&C

Across the NHS GGC estate, there are 3989 staffed adult inpatient beds. There are a further 144 unstaffed beds. If we assume 95% occupancy, there is a total of 3790 available beds for both COVID and non-COVID with additional surge capacity of 144. An additional 33 could be made available but has not been included in the NHSGG&C mobilisation plan. This excludes any capacity that could be made available from the Louisa Jordan Hospital established at the SEC in Glasgow.



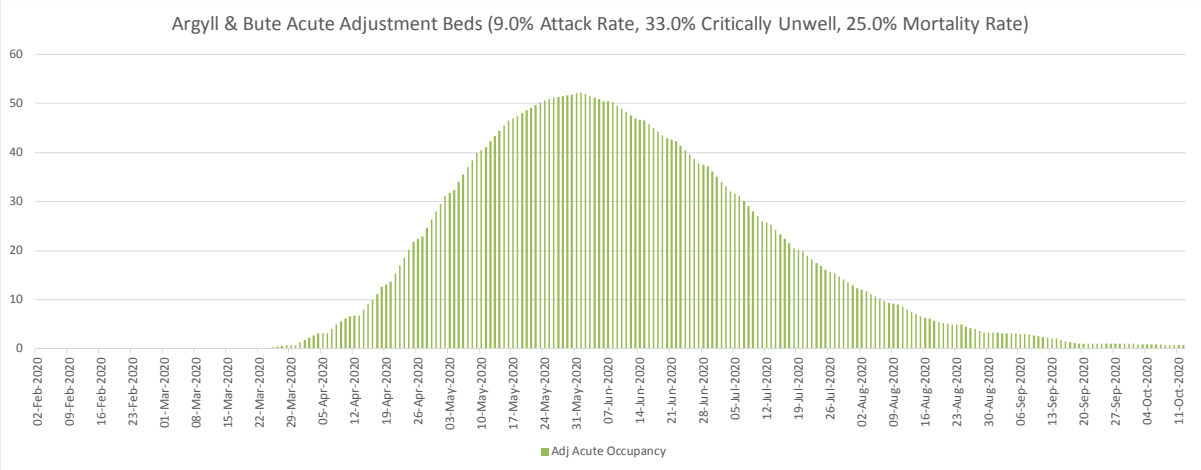
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Peak number of all hospitalised	2285	2285	2285	2286	2288	2293	2308	2356	2459	2613	2718	2823	2945	3080	3216	3331	3408	3435	3434	3402	3324	3211	3086
Peak number of beds COVID-19	0	0	0	1	3	8	23	71	174	328	433	538	660	795	931	1046	1123	1150	1149	1117	1039	926	801
New COVID-19 hopsital admissions	0	0	0	1	3	9	26	82	202	366	445	534	646	770	890	979	1024	1016	955	859	734	609	552
Bed capacity at 95%	3612	3612	3612	3612	3612	3612	3612	3612	3790	3790	3790	3790	3790	3790	3790	3790	3790	3790	3790	3790	3790	3790	3790

Based on the projections above, the requirement for inpatient beds is expected to peak at 3435. This peak would occur in Week 18, currently expected to be at the beginning June, and NHSGGC has capacity to meet this demand.

Non-COVID-19 admissions are based on experience in the last few weeks. It is possible that social distancing may have an impact in further reducing non-COVID-19 related morbidity as well as the spread of the virus e.g. less trauma admissions.

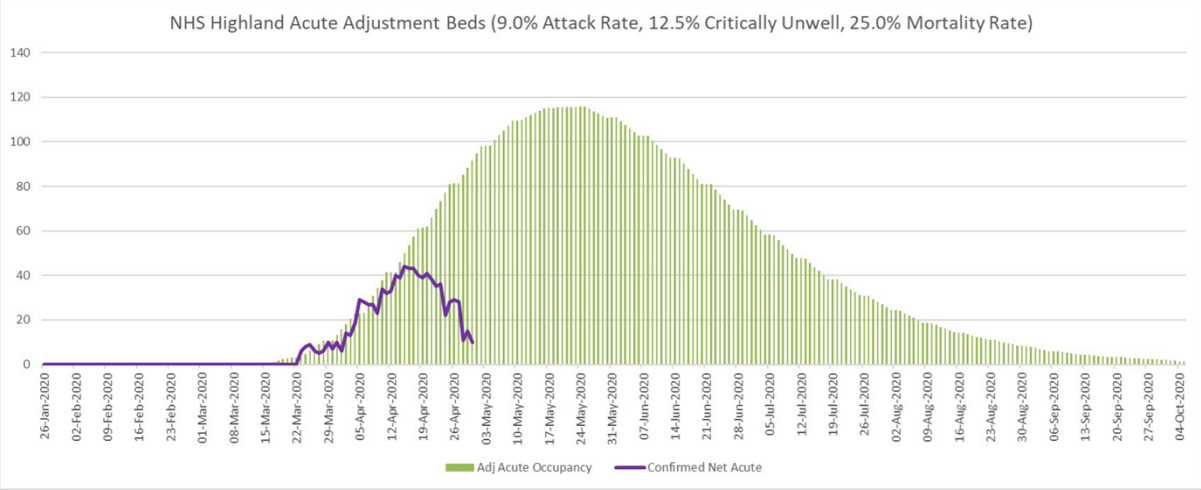
4.2 Argyll and Bute

The graph below shows the bed occupancy profile in Argyll and Bute over the period to September 2020. This modelling shows a requirement of 52 beds during peak week. Of which 14 beds are required in NHSGG&C to support Helensburgh and Lomond population and 38 beds are required in Argyll and Bute hospitals.



4.3 Actual Activity to Modelled activity

The figure below shows the actual against model of COVID-19 Acute inpatient activity in NHS Highland hospitals as at 1st May 2020.



This shows the continuing impact of social distancing reducing the “r” number to below 1 and we are seeing a reduced COVID-19 demand in our hospitals.

Subject to the process and transition speed of relaxing the lock down arrangements it is “possible/probable/likely” that the demand will not exceed our capacity to cope.

5. Community Assessment Centres

Community Assessment Centres (CACs) have been established to:

- Maximise the numbers of symptomatic people who can be cared for in the community, reserving our hospitals for those with the most serious illness, and
- Minimise the exposure of patients using GP practices to COVID-19.

There are eight CACs in Argyll and Bute, 7 of which operate 24/7 and Helensburgh day time hours Monday to Friday. In addition, they will be responsible for distribution of testing kits to residential care and community settings, sending tests for analysis and management of the results.

Projected activity in Community Assessment Centres is expected to be around 100 at peak week with about 1200 over the predicted period of this cycle. This is well within the existing available capacity if appropriate staffing is available.

6. Non-COVID Activity

The NHS response to the pandemic has seen a re-prioritisation to emergency only since March 2020. It is clear that this has surprised both emergency and routine activity but there is growing evidence that demand is increasing and presenting as emergency activity.

This demand on top of the predicated COVID-19 demand needs to be taken into account within Argyll and Bute hospitals. The table below illustrates the scale of Inpatient demand which occurred at our hospitals during the period April 2019 to August 2020

Table 1: **A&B HSCP Acute Inpatient Bed Occupancy Statistics 29 April 2019 to 09 June 2019**

Day Avge Bed Comp	Avail Beds	National Bed Occupancy Statistics						Other Bed Activity Statistics			
		Occ Bed Days	% Occ	Avge LOS	Inpatient			Day Cases	*Same Day Inpats	Ward Trans In	Ward Trans Out
					Adm	Disch	Deaths				
144	13747	10294	74.9	5.2	1731	1658	85	222	301	234	234

Notes: **Same Day Inpatients (i.e. Inpatients Admitted and Discharged on the Same Day) are included in Inpatient Discharge or Inpatient Death Totals as appropriate.*

This shows that our normal medical, surgical and GP inpatient acute bed complement was 144 beds and of this approximately 75% were occupied a total of 108 beds per day.

Our COVID-19 demand at peak is 52 beds and assuming this we would require 160 beds on the 31st May leaving a shortfall of 17 beds.

It is important to note the 2019 activity is only based on emergency inpatient admissions and as reflected our current activity is significantly suppressed at this time. The latest SitRep report of the 7th May 2020 reported 72 beds occupied and 84 available (156) as shown below.

Table 2 - Daily Bed Occupancy

Hospitals	Bed Occupied	Beds Unoccupied	Bed Complement (Escalation plan)	Allocated Beds	Number of suspected COVID-19 –in beds *	Number of confirmed COVID-19 –in beds *	Escal Level 1-4
Bute	5	8	15	13	0	0	1
Cowal	9	10	30	19	2	0	1
Mid Argyll	6	14	86	20	1	0	1
Mid Argyll -MH	16	5	21	21	0	0	1
Campbeltown	6	15	74	21	0	1	1
Islay	3	5	21	8	0	0	1
Oban	25	27	68	52	1	3	1
Mull	2	0	3	2	0	0	1
All A&B Total	**72**	**84**	**318**	**156**	**4**	**4**	

(Data Source: Bed compliment (Bed Occupancy Statistics Health BI-NHSH) updated midnight 06/05/2020 & Bed Occupancy Statistics via Health BI @ midnight 05/05/2020. * Daily Sit-Rep Report @ 07/05/2020)

Retaining this level of capacity we would not have enough capacity to meet the projected peak week demand, and as such would be using the contingency beds we have identified in our hospital COVID-19 escalation plans (Bed Complement).

Finally it is worth noting this is based on average data and real life does not follow averages, we are therefore likely to see peaks and troughs in COVID-19 activity in different localities at different times as we progress through this phase of the pandemic.

7. Community implications

COVID-19 will have significant implications for community health and social care services as well as the future of care homes. It is important to assess these implications as part of the system-wide modelling in order to ensure that our workforce is appropriately flexed to meet the service priorities. A system-wide approach will ensure that services are not relying on the same staff group to deliver different services.

Health and care services in the community include district nurses, rehabilitation teams and care at home staff, many of whom are employed by local authorities and other providers. These groups of staff do have high levels of staff absence due to sickness and self-isolation. They will be dealing with both COVID and non-COVID patients. Over the last few weeks, these service have had to move onto an emergency footing to prioritise visits, meeting only essential needs. Importantly, because some service users have stopped their own care at home services, care at home has not as yet been significantly affected, however there is potential vulnerability for those who have refused their care package.

There are some 340 people in care homes in Argyll and Bute and over 1,100 receiving home care. In addition there are now over 2,200 people who are in the shielded category.

For health and care services in the community, the existing workforce has been able to cover essential non COVID work. However, as the pandemic goes on, these service will need to support two other groups of people in the community: those who are discharged from hospital after treatment for COVID and those being cared for with COVID in the community. The latter group will include a number of people in care and residential homes or supported living accommodation.

It remains too early in the process to assess the level of care and rehabilitation support required by those leaving hospital after COVID treatment, and this will vary significantly depending on home/family support. Our hospitals and care homes may require to provide step down beds or temporary housing for patients requiring support on leaving hospital to comply with testing criteria.

Early experience of caring for COVID-19 patients in the community is beginning to emerge. These patients require an intensive visiting schedule of around three visits per day by two people for a period of around 4 days. They may also need evening and night visits. Often they are unknown to the District Nursing and AHP team and have rapidly changing needs. Generally, they will require subcutaneous medication, and symptoms are difficult to manage, particularly for patients with dementia. The impact on unpaid carers is as yet unknown but it is likely that stress will feature as an ongoing issue.

8 Palliative Care

Predicting the number of people with COVID-19 likely to require palliative and end of life care is difficult and a range of figures is discussed in the Argyll and Bute HSCP COVID-19 – Community and Social Care Escalation Guidance. The numbers will depend on the number of people infected, the severity of the infection, existing health and age profile of those infected. However a proportion of people with COVID-19 disease will require palliative and end of life care not forgetting people with non COVID-19 palliative care needs.

Local pathways considering the presentation and flow of people who may require palliative and end of life care as a consequence of COVID-19 infection should be agreed. This may include:

- People at home
- People discharged from hospital
- People in hospital for whom recovery is not possible
- People in Care Homes

Demand will dictate the shape of any service but the aim should be to provide the best practice palliative care for everyone who requires it. If the numbers are high then care may have to be delivered in a ward type of location. Location of provision of palliative care should be agreed in each locality as part of their escalation planning.

9 Looking forward- “Living and Working with COVID-19”

It is clear that the length of time we will have to deal with the implications of this pandemic is extending into the next 12 months. This disease burden is part of the new activity “norm”. However, the implications of the speed, intensity and scale of response to manage and constrain its impact is now self-evident.

We need therefore to focus on two key aims

1) resuming and optimising routine, comprehensive health and social care; and

2) Simultaneously managing COVID-19 across the health and care system using ongoing preparedness and readiness to re-escalate response.

Resumption of routine service is however very different to what we were doing only 7-8 weeks ago as "living and working with COVID-19" will need to address:

- Social and physical distancing will remain and this will affect our operational use of our estate (layout, facilities, hours of operation etc.) and may well accelerate shrinking our estate footprint further. Services such as day services in the community might have to be significantly reduced or redesigned.

- Prevalence of PPE at work, play, social interaction and daily living in the community

- Ubiquitous COVID-19 testing in hospitals and the community to prevent, isolate and contain any further outbreaks

- Mental and physical well-being needs of staff, shielded community will rise and put increasing pressure on our social care and mental health services and we are already experiencing an increase in mental health referrals to the teams.

- Vaccine development and delivery at scale is expected to be beyond 2020/21+ but its coverage and efficacy is as yet unknown

- The scale of our mobile/agile/remote working will continue to increase, we will deliver more services via virtual or remote access removing geography and rurality as a barrier.

- The need for online appointments and digital health and care services offering 24/7 response will become over whelming. We will see the use of "near me" video and telephone consultations becoming part of the norm in health and care services within and beyond Argyll and Bute.

- Electronic health and care records and data linkage are key to comprehensive COVID-19 surveillance as well as managing non-COVID-19 clinical problems

- Communities and health and care partners have a great opportunity to emerge from this stronger and more resilient. We have seen positive examples of working together with Independent Providers and the Care Home Task Force, for example and this will remain in place. We will however, see/need new contracting and funding partnerships with our care and 3rd sector partners.

- Economic impact and its resultant burden on tax and employment is likely to be significant- resultant health and deprivation impact could exacerbate depopulation in Argyll and Bute.

- How do we pay for this - Financial efficiency, productivity and value for money will continue to be a driver

- Logistic arrangements and supply chain may look different, quicker and enhanced access to diagnostic and distribution arrangements will require a greater diversity of transport infrastructure and methods.

- As has been indicated, adult social care models of service delivery will have to change-the financial viability of some independent care homes is in doubt; there is emerging evidence of a significant rise in domestic violence; increased alcohol use with the resultant consequences, the impact of trauma on adults, children and staff and new ways of working to identify adults at risk of harm given increased isolation and reduced scrutiny. We will need to strengthen and develop new ways of working so that we remain strongly sighted on protection risks and how these are responded to.

These are some of the themes or issues or arrangements we will need to now assess, plan and review as we go forward.

This will require us to not only think about our operational services, but our current strategies and objectives and our governance and corporate operating arrangements. There is a need for a new normal to be developed and implemented over the next 12 months.

10 CONTRIBUTION TO STRATEGIC PRIORITIES

This work supports/underpins the HSCPs strategic and operational response to this emergency pandemic

GOVERNANCE IMPLICATIONS

Guidance: Please ensure that you have followed the appropriate governance structure taking consideration of the following areas prior to submitting your paper.

Financial Impact

The programme of work responding to the pandemic and following on from it will need to be taken account of within current financial planning and return to business as usual which is in hand.

Staff Governance

The workforce consequences and staff and TU fantastic response to the crisis has epitomised the adoption and strengthening of good communication and formal engagement processes and partnership working.

Clinical Governance

Clinical governance response has been fundamental to the shaping and management of the public health projections and demand modelling and our response to ensure patient, client and staff safety.

11 PROFESSIONAL ADVISORY

Input from professionals across the stakeholders remain instrumental in the response to the COVID-19 pandemic.

12 EQUALITY & DIVERSITY IMPLICATIONS

Will need to be reviewed and considered as we progress through this pandemic cycle and emergency operating arrangements.

13 GENERAL DATA PROTECTION PRINCIPLES COMPLIANCE

Compliance with GDPR remains critical and is being considered within the various pieces of work supporting the sharing of information and data to protect health and wellbeing of staff and the public and patients.

14 RISK ASSESSMENT

Not required for this report

15 PUBLIC & USER INVOLVEMENT & ENGAGEMENT

Is assumed within the COVID-19 response in place.

16 CONCLUSION

The HSCP response to address the COVID-19 pandemic to date has been achieved through fantastic commitment and support of our staff and all our partners and stakeholders and the wider Argyll and Bute community as well as the SAS and NHS GG&C.

The information and public health intelligence and evolving knowledge of the corona virus has been fundamental in informing our planning and emergency response to address the care and treatment needs of this disease and protect our most vulnerable.

Our scale of mobilisation has flexed and adapted over the last 2 months and it is clear that we now have robust plans for an emergency response to COVID-19 outbreaks.

We are however, now moving into or towards a new phase of this pandemic “COVID-19 normal” which is certainly going to extend into the next 12 months and probably longer.

This requires the HSCP and partners to master and strengthen what we have achieved and strengthen and cement new ways of working and operating in our new COVID-19 world. The themes identified above have been captured as a starter for 10 to inform how we bring back suspended services on-line. Inform what we will need to cope with the post COVID-19 impact economically, socially and well-being as well as the yet unknown transition rules/time for the easing of lockdown e.g. how long will shielded people remain shielded.

The SLT is asked to consider this report as it develops its business as normal resumption process.

17 DIRECTIONS

Directions required to Council, NHS Board or both.	**Directions to:**	tick
	No Directions required	x
	Argyll & Bute Council	
	NHS Highland Health Board	
	Argyll & Bute Council and NHS Highland Health Board	

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