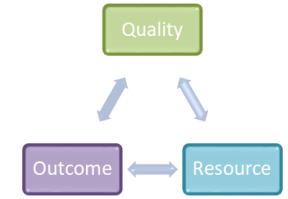
Appendix 1
Covid19 modelling, planning and decision-making related to use of resources and associated costs

Performance, Planning and Finance Committee 19 May 2020



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Covid19 Planning & Governance

Emergency planning response established March 2020 – Gold (strategic), Silver (Tactical), Bronze (operational) – operating protocol

Gold Command strategic plan and 3 strategic aims

- Prevent deaths from COVID19
- Protect the health of people in CTM communities
- Protect the health and wellbeing of staff in our public services

Agreed scheme of delegation (including quality and finance)

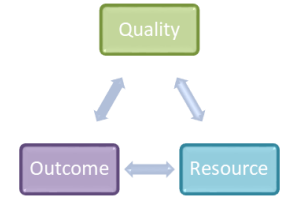
Risk, Issues, Decisions and Lessons Learnt Logs all held, with active leadership & management

Library maintained throughout response

Agreed Communications Protocol – internal and external

Emergency planning structures closing 21 May 2020.

- Closure reports being prepared
- Thresholds for re-establishment if required to be agreed
- Transfer of actions report.



Decision-making relating to commitment of resources

- Strategic, Tactical & Operational response to COVID-19 – Bronze/Silver/Gold structures
- COVID scheme of delegation(detail in Appendix 1) – Approved at March Board Meeting
  - Bronze <=£100k
  - Silver £100k to £250k
  - Gold >£250k (Capital >£1m with chairs action)
- Key decisions with financial consequences (detail later)
  - One-off set up costs (largely expanding bed capacity)
  - Fixed term recruitment – health care support workers & students (workforce to staff capacity expansion where the capacity is needed, or replace use of bank and agency if it is not)
  - Many other areas including free meals for staff, covid19 testing, digital enablers, supporting new pathways)
- Decision log with rationale for and costs of decisions (Appendix 2)

Demand and capacity modelling and planning

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Initial stage – during March

Expected impact - advice was to plan for worst case of 50% of un-mitigated impact – 2300 to 2400 beds

CTM capacity planning - baseline beds c 1200, non-covid bed use fallen to c 800, thus worst case required c 2000 extra beds and 2800 in total

Planning based on

- Expanding critical care beds in acute hospitals (c 25 to c 150)
- Project 430 – at least 430 extra beds in community hospitals and nursing homes
- Field hospitals - Vale at Hensol(250), Bridgend (up to 480), possibly Ty Trevithick(150)

These plans could meet most but not all of the c 2000 extra bed requirement at the worst case

Plans were focussed on physical capacity, staffing capacity still being worked on

See Appendix 3 (26 March demand forecasting – see slide 13 showing 2300-2400 max bed demand modelling) & Appendix 4 (bed planning scenarios on 31 March)

Intermediate stage - early April to mid April

Mixed scenario with 40% compliance gradually became more prominent – but not adopted by WG as RWC

Impact of this scenario was modelled at 622 beds plus 582 non-covid gives 1204 total

Requirement from WG to plan for worst case of 1419 additional beds issued on 3 April, requiring a total of c 2001 (Appendix 5)

See Appendix 6 for typical demand modelling at the time (see slides 11 and 12 in particular) and Appendix 7 for associated bed planning

Bronze/ILG capacity planning had developed further by this stage, and this reflected a greater level of potential for acute hospital capacity expansion at this time

At this stage Bridgend Field Hospital was held at 250 beds, Ty Trewithick was stopped, and approval for equipment for additional beds was held at 760 beds

Current stage – late April and into May

It became clear in late April that we passed the first peak in early April. See Appendix 8 which shows the evidence for passing the peak(slides 4 to 9)

Subsequent demand modelling has modelled various scenarios around the reduction from the first peak & the potential timing & impact of relaxing lockdown restrictions(Appendix 6 slides 10 to 15)

Planning the next stages is becoming more complex

- Planning for uncertain future covid peaks or bumps
- Planning for unscheduled non-covid work to increase back towards “normal” levels
- Planning for providing planned care in hospitals also providing Covid care

We are starting to develop capacity and staffing plans and resultant cost forecasts for this phase

Workforce planning

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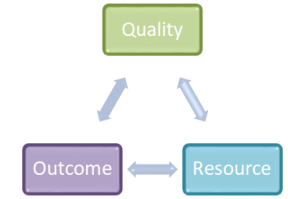

Workforce planning assumptions

- Sickness Absence increased from 6.31% in February, 6.44% in March and 8.10% in April
- Agreed revised staffing ratios and the circumstances in which apply (field hospital, acute wards and community step down hospitals)
- Revised pay arrangements – WG Circular defined increase payments for overtime (additional job Plan sessions). Overtime payment to Band 8 and above.
- Resultant levels of demand vs pre covid supply different demand scenarios
- Workforce supply: Nurse and Medical students, Call to Arms for Bank (RNs and HCSWs), Appointment of 280 HCSWs on 6 months FTCs, GPs for field hospital and Dentists.

Workforce planning assumptions – Nurse Ratios

Critical Care (Ventilated) beds (the ratio will depend on the configuration of the individual units)

Critical care RN: patient 1:3 1:4 1:6 (**worst case scenario – not accepted by our clinical teams)**

Support RN/ HCSW/"other staff e.g. pharmacy/ physio will be factored in as per national guidance e.g. Cat A, B & C nurses

CPAP/ Non-invasive ventilation (NIV) beds i.e. Respiratory high care beds

Specialist respiratory trained RN: patient 1:4 Support RN/ HCSW/"other staff e.g. pharmacy/ physio will be factored in once localities have worked up their operational plans e.g. bed configuration

General ward beds (basing on 24 to 28 bedded wards)

RN: patient 1:12 or at maximum 1:14 i.e. 2 RN's per ward per shift 24/7

HCSW: patient 6 - 8 HCSW's per shift 24/7

Support staff e.g. pharmacy/ physio will be factored in once localities have worked up their operational plans

Field Hospitals For each of 64 beds (3 RN's 24/7 and 12 HCSW(Support staff) RN: patient 1:21 **HCSW: patient** 12 HCSW per shift 24 hrs

Support staff e.g. pharmacy/ physio will be factored in once operational plans are in place

C**ommunity/Local authority beds (i.e. the 432 project)** Staffing to be confirmed and approved

Financial forecasting & monitoring

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Projected capital and set-up costs

The following table shows the ongoing capital and one off set up costs presented to Gold and the latest updated estimate

	Gold Approved 13.04			Gold Approved 27.04			Latest Position		
	Works £000	Equipment £000	Total £000	Works £000	Equipment £000	Total £000	Works £000	Equipment £000	Total £000
Acute & Community Hospital Capacity	504	4,066	4,570	718	4,066	4,784	821	3,821	4,642
Oxygen Capacity	277		277	311		311	397		397
Nursing Home	50	727	777	50	727	777	100	727	827
Field Hospitals	3,250	2,104	5,354	3,250	2,104	5,354	3,250	2,104	5,354
Mental Health	270		270	274		274	329		329
ICT Costs		815	815		815	815		815	815
Sub Total Direct Covid Costs	4,351	7,712	12,063	4,602	7,712	12,314	4,897	7,467	12,364
Project Delays	1,750		1,750	3,950		3,950	3,950		3,950
Total Costs including Project Delays	6,101	7,712	13,813	8,552	7,712	16,264	8,847	7,467	16,314
Revenue	3,300		3,300	3,300		3,300	3,350		3,350
Capital	2,801	7,712	10,513	5,252	7,712	12,964	5,497	7,467	12,964

Projected capital and set-up costs

Key Changes from Original Estimate (Appendix 9 provides the line by line detail for the original approval)

- Identified need for additional works & infrastructure changes in all 3 acute hospitals to support ITU expansion including creating space once theatres and recovery areas required for elective works
- Mental Health and Oxygen works costs increased once works commenced due to increased requirements. Note that initial costs provided without detailed design and investigative works due to urgent nature of requirements
- Increase in project delay costs related to Ground & First Floor Phase 1B (social distancing causing programme elongation circa £0.5m) and PCH Ground and First Floor Phase 2 delayed start impacts confirmed by the consultants and including the impact of increased inflation over the full programme (£1.7m increase from £1.4m to £3.1m). The cost may increase further due to impact of Covid working.

Projected revenue costs

- Initial revenue costing Forecast submitted to WG £51.5m (See Appendices 10 & 11):
  - Internal Capacity & Additional Staffing £24.2m
  - Field Hospitals £4.0m
  - PPE £7.6m
  - Non Delivery of Savings £10.2m
  - Reduction in Elective Care Costs £-3.4m
  - Costs of use of private hospitals are significant, but are not included as they are met directly by WG
- Significant Assumptions included in Forecast:
  - Limited to the periods April – September 2020 (6 Mths)
  - Assumes Reasonable Worse Care scenario of COVID demand from WG
  - Assumes PPE supplies to be paid by HBs.
  - Demand model would not necessitate staffing of Field Hospitals in the near future
  - Continue to cancel non essential activity

Projected revenue costs (continued)

- Continuously reviewing capacity and workforce planning, Forecast costs to be provided monthly to WG:
  - Updating to reflect reactive cost impacts (positive and negative) seen in Month 1 actuals
  - Updating demand model to refresh bed capacity assumptions
  - Reviewing opportunities to reduce costs from reduced planned activity
  - Reviewing slippage on investments and WG funding allocations to support costs
  - Uncertainty on new operating model for unscheduled and planned care activity
  - Removing costs to reflect WG direct funding of some costs(e.g. PPE)
- Potential future financial issues:
  - New operating model under the Covid environment for all activity
  - Planned care backlog
  - Sustainability of independent sector care providers (Care Homes, Domiciliary Care Providers)

Arrangements to track actual financial impacts in 2020/21

- Financial coding hierarchy to reflect planned projects – specific cost centres for major projects and high cost directorates
- Monthly financial reporting returns by ILG and Directorates established identifying covid related spend
- Financial representation working with key projects and groups
  - Field Hospitals
  - Project 432
  - Workforce group
  - Testing Strategy

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Welsh Government guidance on financial management and governance and funding

Performance, Planning and Finance Committee 19 May 2020

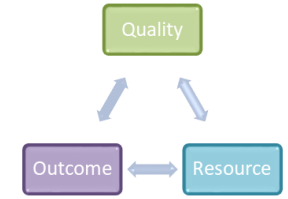
Welsh Government guidance on financial governance

Initial WG guidance was provided on financial management(Appendix 12)

Subsequent urgent payments and financial governance guidance(Appendix 13)

The arrangements the Health Board has put in place on decision-making and governance has been outlined earlier, including:-

- The objectives and decision making arrangements summarised in slide 4
- Strong connection between demand modelling, capacity planning and financial projections
- Financial reporting arrangements
- An accountability letter has been sent to WG by the Chief Executive (Appendix 14)
- The risks around advance payments flagged in WG guidance have not occurred within CTM



Review of governance

- An internal review of the recorded rationale/basis of decisions made by Gold, Silver and Bronze has been commissioned internally to ensure all covered
- The initial output of that as it relates to resource commitments is captured in this briefing, but it will be further developed and considered
- In the context of the need for rapid decision-making, particularly early in the process, there will have been some gaps in formal decision making at the correct level. Where these are identified, retrospective approvals will be sought through Gold on 21 May
- Consideration will be given to asking Internal Audit to do an advisory review of the audit trail on decisions made
- Appropriate reporting to the Audit Committee and External Audit on the above will be considered

Position on Welsh Government funding

- WG has established Health Board and Trust financial forecasting processes relating to Covid, and is analysing Health Board returns, which show significant variation
- The Welsh Government centrally has established a process for reviewing all spending priorities in the context of Covid, and for oversight of commitments and costs of Covid
- Some specific commitments are likely to be funded in the short term, but many of these are specific costs directly funded by WG, such as PPE and private hospital use. The position on total WG funding for revenue costs and the element of this for CTM is unlikely to become significantly clearer until well into the financial year
- Capital funding has been provided for ICT costs(£0.8m). The total funding position may become clearer for capital earlier than for revenue costs

Financial risk management

Performance, Planning and Finance Committee 19 May 2020

Financial risk management

There is a risk that the organisation's operational revenue costs of addressing the pandemic cannot be contained within available revenue funding resulting in an unplanned I&E deficit in 2020/21, and a parallel risk of unfunded additional capital costs resulting in the Capital Resource Limit being exceeded in 2020/21.

Appendix 15 is the entry on the risk register relating to this risk, including the actions being taken to mitigate the risk. The same risk applies to capital expenditure and funding, but the risk is considered much smaller in relation to capital. All the actions identified in the paper around reviewing and refining costs will be taken.

Approvals to be requested from the Health Board

Performance, Planning and Finance Committee 19 May 2020

Approvals to be requested from the Health Board

Capital expenditure

- Chairman's action has already been agreed to approve £4.4m of equipment to support the capacity expansion put in place
- Of the remaining £8.6m, £3.95m relates to delays unavoidably caused by Covid as opposed to new commitments. The balance of £4.65m relates to schemes under £1m approved by Gold/Silver/Bronze which do not individually require Board approval
- In the context of the material overall total, the Board will be asked to endorse the collective total of £13.0m. This represents unavoidable costs arising from the need to put into place the additional capacity indicated by the Welsh Government as necessary. WG is aware of this expenditure commitment related to Covid and there has been an indication it will fund all reasonable covid capital costs

Revenue expenditure

The Board will be asked to endorse the Health Board continuing to incur costs without guarantee of full WG funding, at the same time as raising the formal financial risk in the risk register relating to the risk of revenue (and capital) costs being greater than WG funding provided. The total is currently uncertain but will be lower than the £51m initially forecast. Due consideration will be given to value for money.