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Letter to the Editor

Glimpse into Initial Policy Responses to COVID 19 Pandemic by Sri Lanka and Wales

Randima Udari Mambulage

RDHS office, Ratnapura, Sri Lanka

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To the Editor,

Corresponding Author: Randima Udari Mambulage, E-mail: <mambulage@gmail.com> https://orcid.org/0000-0003-0072-2962
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Introduction

In December 2019, pneumonia patients with unknown etiology were reported from Wuhan, China. Later it was found that the responsible virus was from family of coronaviruses. It was initially named novel corona virus 2019 (nCoV – 2019) and later known as severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) [1]. WHO declared a Public Health Emergency of International Concern (PHEIC) on 30th January 2020 due to rapid spread to other countries which was followed by declaration of a pandemic on 11th March 2020. As of 29th December 2020 globally, there were 79,931,215 confirmed cases of COVID-19, including 1,765,265 deaths, reported to WHO [2]. Even after one year of global efforts, non-pharmaceutical interventions (NPIs) have been mainstay of prevention and mitigation in absence of a definitive treatment to the virus. Though vaccine is available, need of adherence to the current measures on reducing transmission was highlighted (WHO press conference) [3]. This pandemic has tested countries health systems and political leaderships as well as unmasking the social inequalities [4].

In the beginning in absence of a vaccine, options that were available in response to the pandemic were based on two strategies according to the Imperial Collage [5],

1. Mitigation – aim to curtail the transmission to keep the numbers at a level that the health system can cope and to have a herd immunity
2. Suppression – aim to reduce the reproduction number (R) below 1 or eliminate transmission till a vaccine is available

Both strategies used NPIs and impact of these were based on how people abide by them. Use of multiple interventions simultaneously has shown to be effective [5]. Later, Baker and colleagues described five levels of strategies that has been used by countries in response to COVID 19 [6].

1.	No substantial strategy	no special actions and will result in uncontrolled pandemic wave
2.	Mitigation strategy	where they take action to flatten the curve which will prevent over whelming of health system and prevention of vulnerable like in Sweden.
3.	Suppression strategy	action taken stepwise manner to reduce the number of cases as in most countries in Europe
4.	Elimination strategy	maximum action is taken to exclude disease and to eliminate community transmission. Country examples are China, New Zealand and Taiwan
5.	Exclusion strategy	maximum action taken to exclude disease as in Pacific Island countries and territories

They further divide them based on goals of no community transmission (exclusion and elimination), controlled transmission (suppression and mitigation), and uncontrolled transmission and state that these strategies exist in continuum in and between categories.

SARS CoV 2 was a novel virus, thus, there was limited evidence for countries to take decisions. Policy making during a pandemic is challenging and complex [7] and it involves risks and uncertainty [8]. Thus, the policymakers must often make complex judgments with imperfect information, under great uncertainty, time pressure, and heightened levels of scrutiny [9]. In a crisis, role played by experts in determining policy may vary as it is not only the scientific evidence but also the economic and political drives are considered in decision making [9].

After a difficult and different year, and still fighting hard against the pandemic, it is important to analyse the health policies used by countries and how they have succeeded in minimizing the effects of pandemic. Such analysis will help countries to learn from each other. In understanding the policy differences, policy analysis framework proposed by Walt and Gilson and recommend using for developing countries can be used [10]. This simple analytical model is based on concepts of content, context, process and actors as individuals and as groups. Though the model is simple, the interrelationships are complex.

This analysis aims to compare the public health policy responses taken by Wales and Sri Lanka and how the different factors might have affected them using the Walt and Gilson's policy analysis framework. This is not a comparison between successor and a failure but a comparison of each concept in two countries to inform similarities, differences and how they have affected policy and control of COVID 19.

Comparison of two countries regarding demography, health system and health capacity is shown in table 1 for better understanding of the country contexts. Sri Lanka is larger

country compared to Wales in terms of population which is around 7 folds and land which is around 3 folds larger. Wales is far above to Sri Lanka in terms of economy evident by GDP of € 22900 per capita [11] compared to US $3853.1 [12]. Both countries have Beveridge model health systems which is funded by government through taxation and free at the level of service provision though, the structure is different.

Table 1: Comparison of Sri Lanka and Wales with regard to Demographics, Health Systems and Public Health delivery.

	Sri Lanka	**Wales**
Population	21.9Mn [13]	3.2 Mn [14]
Land area	65 610 Km^2	20 735.9 Km^2
Population density	346 per Km^2[15]	152 per Km^2
GDP per capita	US $3853.1 [12]	€ 22900 [11] (approximately – US $26 800)
Health care delivery	Through institutions under Line Ministry and 9 Provincial Director of Health Services	Through 7 local health boards and 3 trusts namely, Welsh ambulance service NHS trust, Velindre NHS trust and Public Health Wales [16]
At National level	Ministry of Health	Department of Health and Social Services (DHSS)
Leading Persons	• Secretary Health (Civil Servant) - Accountable to Cabinet Minister • Director General of Health Services (Medical Officer in Senior Medical Administrative grade) - is responsible with providing policy advice to the Minister, and other parts of Sri Lankan Government on Health. - exercising strategic and administrative leadership and management of all government health institutions (both preventive and curative)	• Director General of Health and Social Services (Civil Servant) [17] – is also the Chief Executive of NHS -Wales - Accountable to the Cabinet Minister - Is responsible for providing Minister with policy advice and exercising strategic leadership and management of the NHS • Chief Medical Officer [17] - is responsible for leading policy and programs for protection and improvement of health - professional and medical advice to Ministers, the Health & Social Care Department and other parts of the Welsh Government
Health System	Government provided health carefree of charge at point of delivery up to tertiary level [18] No gate keeping system self-driven access to specialists in the private sector, even for first-contact primary care is possible [18]	Free health care at point of delivery There is a gate keeping system Access to specialist through primary care [19]

Content

In Wales, initially the content of policies was based on mitigation strategy and subsequently changed to suppression strategy [6] whereas Sri Lanka using more strict measures and was more towards elimination strategy in the initial stage.

Sri Lanka started from March and maintained

i. Quarantine of foreign returnees at centers
ii. Quarantine of contacts at quarantine centers or at home,
iii. Contact tracing
iv. Isolation and keeping all positive cases at health institutions specially identified to treat COVID patients to prevent transmission
v. Testing offered for symptomatic, contacts, foreign returnees which was initiated by health personnel
vi. National lockdown with strict movement restrictions followed by local area isolations based on case load
vii. Advised to keep 1 meter distance
viii. Face mask was essential to get out of your house

Wales

i. Self-quarantine started from June for foreign returnees
ii. Contacts were self-isolated
iii. Contact tracing which was stopped with increase in case load in March and restored as Tract, Trace, Protect initiative from June
iv. Only severe cases taken to hospital while positives were asked to self-isolate at home
v. Testing for symptomatic/ frontline workers – self initiated
vi. National lockdown followed by county wise movement restrictions, followed by 2nd national firebreak lockdown and a third national lockdown
vii. Advised to keep 2-meter distance
viii. Wearing face masks were mandatory only in closed spaces and was put on place few months later

In the initial stages Sri Lanka was considered to have cluster transmission whereas Wales could not stop the community transmission. Sri Lanka has tackled asymptomatic patients by either quarantine of who were at risk of getting infected and isolation of asymptomatic patients. In Wales asymptomatic were hardly caught as testing was directed towards symptomatic. Thus, even during lockdowns asymptomatic carriers could do shopping for essentials and go out for exercise contributing to transmission.

Other difference was seen in the recommended distance to keep between persons which was 1-meter in Sri Lanka and 2-meters in Wales. Sri Lanka has adopted the minimum requirement while Wales adopted 2 meters in par with other European countries. Use of face mask was made mandatory in Sri Lanka even before WHO recommended it.
Where both countries have adopted similar policies, the timing of policy decisions were different. Wales was late in implementing some of the policy responses.

In Wales policy response to COVID 19 was seen in all policies, which is a fundamental recommendation by WHO to achieve success, and thus confusion or frustration was minimal for the public. For example, there were provisions to prevent evictions during

lockdown, there was financial support for employers as well as employees including those who were self-employed. This seemed lacking in Sri Lankan setting except for provision of financial allowance worth of Rs 5000 for selected households. The health policies were in place, but they were not supplemented by the other sector policies compared to Wales

Context

Policy context includes all environmental factors under which a policy is made and implemented. Various classifications for the policy context have been described [20]. Liu et al describes context factors at three levels of macro, meso and micro. Macrolevel context factors include political, economic, and social factors. Meso-level context factors include health system factors. Micro-level context factors refer to the implementation process of the policy responses. This categorization helps to analyse the potential roles that might have affected COVID policy response at macro, meso and micro levels.

Macro level

Sri Lanka is an island in Indian Ocean, situated southwest to the Bay of Bengal. Being an island, it had the opportunity to control the borders though there was inevitable risk of severe economic implications [21]. Starting from self-quarantine of returnees from China, Wuhan in January Sri Lanka was scaling up the measures by imposing mandatory quarantine at quarantine centers for 14 days from 10th March for certain countries and from 19th March all arrivals to Sri Lanka were suspended as a border control measure. Repatriation flights were in place for compulsory travel and were subjected to 14 days quarantine at a center followed by further 14 days home quarantine under supervision of local health authorities and the police. According to Epidemiology unit of Sri Lanka 4% of total cases reported in 2020 were imported and majority detected while mandatory testing at the quarantine centers.

Wales's situation was more complicated due it's east boundary to England where the restrictions are different, and the boarder control was much more difficult without help of England. On the other hand, Welsh government / National Assembly's legislative power was limited as the power on listed issues were reserved with the UK government [22]. In Wales, travel restrictions were imposed from 8th June 2020 for those who are from outside of the common travel area (UK, Ireland, the Channel Islands and the Isle of Man) within 10 days before arrival were asked to self-isolate for 10 days. A list of countries with exemptions were listed and updated [23].

Sri Lanka has capitalized in their context by early, strictly controlled cross border restrictions at the 1st six months of the year.
The fiscal capacity of the country affects policy responses. Both countries provide free health care thus, the government's ability to fund, affects the decisions. Wales was at an advantaged situation compared to Sri Lanka being a higher income country. In second half of the year with the increasing cases, Sri Lanka couldn't afford a national lockdown probably as a result of the economic situation and thus opted for local area isolations based on case numbers. In contrast, Wales was continuing the 3rd national lockdown while supporting people who were affected. On the other hand, fiscal powers being with

the Westminster government constrains the Welsh ability to take decisions. Fire break lockdown could have been carried out for some time further if financial support was ensured by Westminster.

Meso level

Unique public health system in Sri Lanka has let the policymakers to take quick and sustainable policies for containment of COVID -19. Medical Officer of Health (MOH) area is the smallest and well demarcated health administrative unit in Sri Lanka headed by a qualified medical officer who has undergone special public health training including communicable disease control activities. Public Health Inspectors (PHII) are field officers under MOH who carries out disease control activities. Technically there is universal coverage, there is a PHI/MOH responsible for each household and is not overlapping. Contact tracing, testing of high risk, quarantine, and coordination of positive cases for isolation and surveillance is being done using this system. Even with increased number of cases contact tracing and quarantine was maintained using this system with help from the police and military.

In Wales, a different public health system is in place. Public Health Wales in collaboration with seven health boards provides the preventive services. Communicable diseases being low priority compared to non-communicable diseases in the past, capacity to tract and trace all cases was limited in Wales. A similar position to PHI is found in form of environmental health officer. Tract, trace, protect initiative was put in place to close the gap and implemented by PHW and health boards. Use of technology, apps, and digital media to reach the population was pronounced in Wales in this regard while increase in manpower by deploying military and use of military intelligence services was seen in Sri Lanka.

Micro level

Implementation of policy responses to control COVID 19 was placed at a higher priority level for both the countries. Emergency situation declaration by the leaders and seeing the direct effects in terms of morbidity and mortality have made it feel necessary to implement the responses.

The major difference seen between two countries in implementation was that in Wales the responsibility lies more on the citizens whereas in Sri Lanka it is more controlled by the officers or by policing. This difference can be due to the socio-cultural context of government believing in self-discipline of people in Wales.

Process

Quarantine and Prevention of Disease Ordinance No 03 of 1897, one of the oldest legal enactments in Sri Lanka governs the legality for disease control activities [24]. While it covers specific diseases that have created pandemics in the past like plague, cholera and smallpox, it has provisions that can be used for any infectious disease. On 20th March 2020 using the power vested on Minister of Health by the Quarantine and Disease Prevention Ordinance, COVID 19 was declared a quarantinable disease in Sri Lanka.

People those who refuse or do not abide the regulations can be convicted and punished with fine, imprisonment or both.

The Authority for implementation of the legislation is Director General of Health Services (DGHS) and in the early stages of the pandemic the powers were delegated to Medical Officer of Health (MOH) and Public Health Inspectors (PHI) to carry out prevention and control activities. Later, Police force were delegated powers to work with the field officers. DGHS declared entire Sri Lanka as a diseased locality on 18th March and this allowed restriction of movements. A national lockdown in form of "Curfew" was imposed. Isolation of asymptomatic diseased as well as quarantine of contact were carried out based on the provisions given.

Corona virus act 2020, provides emergency powers to United Kingdom (UK) including Wales for disease control activities as well as social protection [25]. Prevention of evictions and financial support for those who were affected during the emergency were provided based on this act. This act was time limiting for 2 years. Declaration of threat to public health by corona virus was done by first minister on 29th of March 2020 under the act.

Protection of humans from infection was covered under Health Protection legislation in Wales which was updated in 2010. Welsh assembly has the powers to prepare regulations on this regard which enabled by the Public Health (Control of Disease) Act 1984 and Health and social care act 2008 [26]. Based on these, regulations were made to add COVID 19 to notifiable diseases and SARS-CoV 2 to the causative agents which came into force from 6th March 2020 [27].

Health Protection (Coronavirus Restrictions) (No 5) (Wales) Regulations 2020 was the main regulation on restrictions imposed. Since March there have been several amendments as well as revoked regulations based on the risk situation of the country to impose lockdown, local restrictions, travel restrictions and alert levels etc. Travel and quarantine regulations were also based on the health protection legislation.

Both Wales and Sri Lanka have had powers to bring enactments for communicable disease control activities, but the time taken to bring such enactments was longer in Wales. Reasons for initial delay was partially due to waiting for UK government decisions; though, Wales had devolved powers on health. The other reason was that UK lacked backing of emergency powers till passing of corona virus act 2020 to implement the policy decisions.

Actors

Sri Lankan president established a presidential task force headed by the president on 26th January 2020, perceiving the risk of epidemic, a time there was no single case reported. This shows that COVID 19 response was placed high on political agenda. On the other hand, UK government was blamed for slow and insufficient response at the initial stages. Though Wales had devolved powers along with Ireland and Scotland to have Public Health

regulations, Wales waited for UK government to take decisions at initial stages. As the pandemic evolved Welsh chief minister took the decisions for Wales.
Coordination between leaders were in the form of Cobra meetings for collective decisions, while four chief medical officers were working closely to take decisions.

In Sri Lanka Health Ministry officials, experts in relevant fields, police and military representations were included in the presidential task force. Thus, intersectoral collaborations and working together was allowed. In Wales, a similar body, an executive committee was created among senior officials to handle COVID – 19 related works [28]. Emergency Control Centre (Wales) (ECC(W)) coordinates where multiagency – approach is needed. ECC(W) works closely with Welsh Strategic Co-ordinating Groups (SCGs) which include the police, fire and rescue services, transport authorities and the military. Similar types of stakeholders were involved in action to control COVID -19 for both countries.

COVID -19 was an issue that high technical knowledge was needed therefore experts need to play a major role in policymaking. Chief Scientific Advisor (CSA) and Chief Medical Officer (CMO) advise the policymakers in Wales. In addition, the decisions from Westminster were in consultation with Scientific Advisory Group for Emergencies (SAGE). Experts outside, including academics, other governmental organizations who does not participate in advising the policymakers has contributed by providing arguments, collecting evidence and informing the government, e.g., Horizon Scan Report by WHO collaborative center.

In Sri Lanka Advisory Committee for Communicable Diseases (ACCD) is responsible for advising on communicable disease prevention [29]. Professional bodies like Collage of Community Physicians of Sri Lanka (CCPSL) have prepared collections of evidence, Position papers to inform the government. Health related trade unions have influenced on policy making in Sri Lanka, government medical officers union was one such union that shared their opinion on policy response. Even in Wales Teacher's union was acting against reopening of schools which government had to consider.

How the public was responding to the implemented policies was one of the key drives that has decide the success of policies. Sri Lanka went into a strict type of a lockdown quickly in form of "curfew" which didn't allow people to move even for buying essentials and exercising compared to that of the lockdown in Wales. Only the people who were in essential service with their identity card or special permission letter by police and people who were seeking health were allowed to travel outside their home premises. Majority abide by the restrictions thus it was ended up with no cases reporting for months from the community showing the success of policy in controlling the 1st wave.

Initial response from the public in Sri Lanka was positive in fact there were citizen movements requesting for lockdown. There were even supportive networks to provide essential items at doorstep level. With the time there were misuse of the provisions given for travel and government had to use police to control. In Wales, public was following the government instructions better compared to Sri Lanka even though there were incidents of breaking rules, issuing of warning, and fining reported.

Discussion

Success of the policy responses to COVID 19 were based on various factors. Policy analysis frameworks help to understand how these factors affects policy.
Content of the policies used by both countries were similar, but timing wise Sri Lanka has used them early in the pandemic. Being an island and sovereignty has placed Sri Lanka in a better position to take decisions compared to Wales, which is boarded by England and some powers vested at Westminster Parliament. Well established public health delivery system in Sri Lanka warranted early implementation of the response activities whereas Wales had to develop systems to implement policies.

Economic stability, in Wales was far ahead of Sri Lanka, which allowed further national lockdowns. Initial delays in policy process have made Wales to work hard to control community transmission while Sri Lanka losing its grip later in the year contributed by many factors.

While experts play a considerable role in informing the evidence to the policy making bodies, COVID has been placed in high priority political agenda item for both countries like rest of the world. The most important actors for success of policy implementation, the public has showed a positive response initially and seems their coping capacity was losing due to restrictions placed for longer duration and normalization of the initial fear for disease.

Conclusions

Both countries, Sri Lanka and Wales have their own strengths and weaknesses in agenda setting, policy formulation and implementation of health policy to mitigate COVID 19.

References

1. Zheng J. SARS-CoV-2: An Emerging Coronavirus that Causes a Global Threat. Int J Biol Sci. 2020 Mar 15;16(10):1678-1685. doi: 10.7150/ijbs.45053. PMID: 32226285; PMCID: PMC7098030.
2. World Health Organization. WHO Conrona virus (COVID 19) dashboard [internet]. Geneva, Switzerland. WHO [updated 29.12.2020; retrieved on 29.12.2020] available from https://covid19.who.int/
3. WHO Press briefing on COVID 19 [internet]. 28.12.2020. Geneva, Switzerland. accessed from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/media-resources/press-briefings 28th December 2020
4. Kavaliunas A, Ocaya P, Mumper J, Lindfeldt I, Kyhlstedt M. Swedish policy analysis for Covid-19. Health Policy and Technology [Internet]. 2020 August 29 [cited 2021 Jan. 08]; 9 (2020): 598-612. https://doi.org/10.1016/j.hlpt.2020.08.009
5. Imperial Collage COVID 19 response team. Report 9 - Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand. Collaborating Centre for Infectious Disease Modelling; MRC Centre for Global Infectious Disease Analysis; Abdul Latif Jameel Institute for Disease and Emergency Analytics; Imperial College London, UK 16th March 2020 DOI: https://doi.org/10.25561/77482
6. Baker MG, Wilson N, Blakely T. Elimination could be the optimal response strategy for covid-19 and other emerging pandemic diseases. BMJ [Internet] 2020 December 22 [cited

on 2020 December 2020]. 2020;371 Cite this as: BMJ 2020;371:m4907 http://dx.doi.org/10.1136/bmj.m4907
7. Bennett B, Carney T. Planning for Pandemics: Lessons From the Past Decade. J Bioeth Inq. 2015 Sep;12(3):419-28. doi: 10.1007/s11673-014-9555-y. Epub 2014 Jul 8. PMID: 25000924; PMCID: PMC7089178.
8. Colfer B. Public policy responses to COVID-19 in Europe. Eur Policy Anal. 2020;6:126–137. https://doi.org/10.1002/epa2.1097
9. Malandrino A, Demichelis E. Conflict in decision making and variation in public administration outcomes in Italy during the COVID-19 crisis. Eur Policy Anal. 2020;6:138–146. https://doi.org/10.1002/epa2.1093
10. Walt G, Gilson L. Reforming the health sector in developing countries: the central role of policy analysis. Health Policy and Planning, 1994; 4 9, 353-370. Available https://academic.oup.com/heapol/article/9/4/353/649125
11. European Commission. Internal Market, Industry, Entrepreneurship and SMEs: Regional innovation monitor plus: Wales: Economy. European Commission, Belgium [Cited 2021 Jan. 08] available from https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/wales
12. World Bank Group. GDP per capita (current US$) - Sri Lanka World Bank national accounts data, and OECD National Accounts data files. [Internet] World Bank [Cited 2021 Jan. 08]. Available from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=LK
13. Department of census and statistics. Vital statistics: Estimates on Mid-year Population 2015 – 2020. "Sankayana Mandiraya", No. 306/71, Polduwa Road, Battaramulla. Department of Census and Statistics. [Accessed 2020 Dec. 28] Available at http://www.statistics.gov.lk/Population/StaticalInformation/VitalStatistics
14. Stat Wales. Population estimates by local authority and year [Internet] Statistics for Wales. Office for national statistics. [Accessed 2020 Dec.28] Available at https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/Local-Authority/populationestimates-by-localauthority-year
15. Medical Statistics Unit. Annual Health Bulletin 2018. 385, Rev. Baddegama Wimalawansa Thero Mawatha, Colombo 10. Ministry of Health, Sri Lanka. [cited 2020 Dec. 28] Available at http://www.health.gov.lk/moh_final/english/public/elfinder/files/publications/AHB/2020/AHB_2018.pdf
16. NHS Wales. Health in Wales: Structure. NHS Wales, Cathays Park, Cardiff, CF10 3NQ. Wales. [cited 2020 Dec. 28] Available at http://www.wales.nhs.uk/nhswalesaboutus/structure
17. NHS Wales. Health in Wales: NHS Wales about us. NHS Wales [cited 2020 Dec. 28] Available at http://www.wales.nhs.uk/nhswalesaboutus
18. Perera A, Perera H S R. Primary Health Care Systems (PRIMASYS): Case study from Sri Lanka. Geneva: World Health Organization. 2017 [cited on 2020 Dec.28] Available at https://www.who.int/alliance-hpsr/projects/alliancehpsr_srilankaprimasys.pdf?ua=1
19. Sripa P, Heyhoe B, Garg P, Majeed A, Greenfield G. Impact of GP gatekeeping on quality of care, and health outcomes, use, and expenditure: a systematic review. British Journal of General Practice. May 2019. e294 – e302 [cited 2020 Dec. 28] Available at https://bjgp.org/content/bjgp/69/682/e294.full.pdf

20. Liu X, Dou L, Zhang H, Sun Y, Yuan B. Analysis of context factors in compulsory and incentive strategies for improving attraction and retention of health workers in rural areas: a systematic review. Biomed central, Human Resources for Health (2015) 13:61 DOI 10.1186/s12960-015-0059-6
21. Boyd M, Baker M G,Mansoor O D, Kvizhinadze G,Wilson N. Protecting an island nation from extreme pandemic threats: Proof-of-concept around border closure as an intervention PLoS One. 2017; 12(6): e0178732. Published online 2017 Jun 16. doi: 10.1371/journal.pone.0178732
22. Law Wales: helping you understand Welsh law. Constitution and government – devolution. 2016 [cited on 2020 Jan. 02] available on https://law.gov.wales/constitution-government/devolution/wales-act-2017/?lang=en#/constitution-government/devolution/wales-act-2017/?tab=overview&lang=en
23. Welsh government. Rules for foreign travel to and from Wales: coronavirus (COVID-19) [cited 2020 Jan 02] Available at https://gov.wales/exemptions-self-isolation-coronavirus-covid-19-html
24. Arnold S M. Quarantine and Prevention of Diseases Ordinance: is it sufficient for public health response in COVID-19?. 2020 Journal of the College of Community Physicians of Sri Lanka, 26(3), pp.170–174. DOI: http://doi.org/10.4038/jccpsl.v26i3.8332
25. Legislation.gov.uk. Corona virus act 2020. The national archives [cited on 2020 Dec. 28] available at https://www.legislation.gov.uk/ukpga/2020/7/contents/enacted
26. Welsh government. Coronavirus legislation: related legislation. First published 6th March 2020 [cited on 2020 Dec. 28] Available at https://gov.wales/coronavirus-legislation-and-guidance-law
27. Welsh statutory documents. The Health Protection (Notification) (Wales) (Amendment) Regulations 2020. 2020 No. 232 (W. 54) PUBLIC HEALTH, WALES [cited 2020 Dec. 28] Available at https://gov.wales/sites/default/files/publications/2020-03/public-health-wales--the-health-protection-notification-wales-amendment-regulations-2020.pdf
28. Paun A, Sargeant J, Nice A. A four-nation exit strategy How the UK and devolved governments should approach coronavirus. IfG INSIGHTS May 2020 [cited 2020 Dec. 28] Available at https://www.instituteforgovernment.org.uk/sites/default/files/publications/four-nation-exit-strategy-coronavirus.pdf
29. Wijesinghe P R, Palihawadana P, Peiris TSR. Participatory decision-making through the Advisory Committee on Communicable Diseases: The Sri Lankan experience April 2010 Vaccine 28 Suppl 1(Suppl 1):A96-103 DOI:10.1016/j.vaccine.2010.02.042 https://www.researchgate.net/publication/43298624_Participatory_decision-making_through_the_Advisory_Committee_on_Communicable_Diseases_The_Sri_Lankan_experience/link/5564429708ae86c06b6984c4/download