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Time-expired emergency preparedness

PERSPECTIVES

MARI BJØRNAAS

mabjornaas@gmail.com
Mari Bjørnaas, PhD in clinical toxicology, specialist in internal medicine and senior consultant and former acting head of the Norwegian National Unit for CBRNE Medicine, Oslo University Hospital.
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It is a paradox that we are building emergency stockpiles without taking into account their harmful impact on nature and the environment.

Extreme weather, heatwaves and pandemics show us that climate change causes significant impacts to public health. Nevertheless, emergency preparedness is never subject to carbon accounting requirements. Are we afraid of coming last in the race for medical equipment and supplies, so that we remain just as unprepared as we were on 12 March 2020 when it comes to personal protective equipment (PPE)? Are we following the herd in a dash where each country is responsible for its own supplies, and it is a case of first come, first served? Do we believe that when needs are greatest, short-term investments trump long-term consequences? Is it so that in the emergency preparedness field, the end justifies the means?

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It is no longer a question of whether climate change impacts on public health. The increase of zoonoses in Europe, such as dengue fever and tick-borne diseases, the 'Hans' storm, and this summer's recurring heatwaves causing heat-related fatalities in southern Europe have shown us that even an increase

of one degree in Europe's mean temperature affects health. Climate change is used as an argument for increasing emergency preparedness. We saw this in the white paper on health emergency preparedness (1), the Official Norwegian Report from the national emergency commission (2), and the Norwegian Institute of Public Health's report on the vulnerability and need for adaptation in the health and care sector in Norway (3). The current focus is on a sustainable and climate-resilient health and care sector. But the sustainability of emergency preparedness itself is not mentioned in any of these reports. We must adapt to the impacts of climate change, but fail to take into account that 5 % of oil producer Norway's total greenhouse gas emissions stems from the health service. It is up to us to ensure that we have leaders who also take sustainability into account in measures aimed at increasing emergency preparedness (4).

The environmental cost of emergency preparedness measures

Norway is a signatory of the 2023 Budapest Declaration, and is thus committed to working for a sustainable future together with other European members of the World Health Organization (WHO) (5). Sustainability has been a buzz word ever since it was popularised by the Brundtland Commission in 1987, and like other buzz words, it is in danger of being overused. Sustainable development seeks 'to meet the needs and aspirations of the present without compromising the ability to meet those of the future' (6).

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The Budapest Declaration points out that sustainable development is under threat from wars and conflicts. The immediate dangers this can entail may overshadow the need for long-term efforts to mitigate climate change. The WHO estimates that climate change is responsible for 1.4 million premature deaths annually, and plays a role in the exacerbation of one-fourth of all cases of disease globally. However, the link between emergency preparedness intended *to combat* climate change and the greenhouse gas emissions *resulting from this* is never highlighted. Contingency measures aimed at mitigating climate-related health challenges must not augment the problem: the environmental cost must be proportionate to the usefulness of the measure. Even though no one disputes the usefulness of stockpiles, we should be discussing *what* we stockpile and *how much* we stockpile.

Multi-use equipment better

Both the EU and national stockpiles focus on single-use equipment. Face masks, gloves, protective suits – everything is used once and thrown away. This makes emergency preparedness more vulnerable, and climate gas emissions from both production and use are considerable. Some of the equipment will never be used and is discarded after years in storage. Is single-use equipment the best solution? Surely emergency preparedness would be more robust and able to handle more long-lasting crises if the equipment could be reused? Or should multi-use equipment in daily use form the basis of our emergency preparedness? If this were the case, a crisis and higher demand for equipment would trigger more need for sterilisation rather than larger quantities.

Multi-use equipment will *always* pay off in carbon accounting, and the greatest benefit is that it will also be cost-effective over time. Disposable equipment has an expiry date, and thus is not just a one-off cost – it must be discarded over time. Moreover, multi-use equipment is of better quality and is preferred by doctors and nurses. One example is multi-use caps, which were mentioned in the specialist health service's 2023 report on social responsibility (7). Medical professionals would like to see a transition to multi-use equipment in operating theatres. When building stockpiles of PPE, preference should be given to multi-use equipment in light of carbon accounting.

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In all probability, this measure will improve emergency preparedness. In addition, it will represent a saving in costs over time. So what is stopping this? Part of the reason may be short-term investments and a failure to include carbon accounting requirements in tenders. Norway has the opportunity to lead the way by setting requirements for carbon accounting for strategic national stockpiles, both nationally and in Europe.

Equipment that is stockpiled and discarded

In the case of medications, Norway has good systems for rotating stockpiles – also at the national emergency stockpile (*Nasjonalt legemiddelberedskapslager*) However, some medications are not intended for use on a daily basis, and must be replaced, for example drugs that treat rare diseases, and antidotes for poisoning and radiological and nuclear incidents. Is there no hope for climate measures in this area? This is by no means the case. Many medications can be stored at the primary manufacturing stage and completed as needed. Their shelf life can thus be extended from 2–5 years to 10–15 years. We should insist on carbon accounting for the alternatives before deciding which medications we want to stockpile, including for rare conditions.

We should require producers to offer us the opportunity to choose between different alternatives, with the carbon footprint as one of the parameters compared. For example, we may choose to store highly concentrated alternatives that must be diluted (which takes little time if the relevant procedure is at hand) rather than using pre-filled autoinjectors with a short expiry date and only one indication for use.

We must also be able to set procurement requirements in cases of urgency and in emergency preparedness for wars and crises. The ability to influence the make-up of equipment is currently highlighted in the specialist health service's joint procurement scheme and is recommended in the Norwegian Directorate of Health's roadmap for a sustainable health and care service (8). But is a roadmap sufficiently binding in this connection? What will happen when a new pandemic is on the horizon – will we be able to keep a cool head or will we frantically purchase single-use equipment and ventilators like last time? In this connection, the joint European stockpiles represent something new, because they buy us time to think – and to set our product requirements when the crisis is on us.

> ***«We can review our procurements item by item and ensure that the products we choose do not contain environmental toxins»***

The 2023 specialist health service's report on social responsibility describes the phasing-out of polyvinyl chloride (often referred to a PVC) in disposable infusion tubes in the South-Eastern Norway Regional Health Authority (7). Polyvinyl chloride is regarded as amongst the most toxic materials for our planet. The entire life cycle of the product contributes to emissions of chlorine-based chemicals and is one of the key sources of dioxins (9). Dioxins, which are forbidden for use in insecticides in Norway, accumulate in water, air and food chains. These substances also lead to adverse health effects such as cancer, damage to the immune system and hormonal disorders. As a great deal of disposable medical equipment contains dioxins, there is also an untapped potential when we build up stockpiles. We can review our procurements item by item and ensure that the products we choose do not contain environmental toxins.

Obstacles to sustainable emergency preparedness

Who gains from single-use equipment? Disposable scissors, tubes, speculums, laryngoscopes – the list is endless. The health service is well aware that using multi-use equipment where possible represents the best option in times of crisis when supply lines are broken and consumption increases. Equipment that can be sterilised and used again. Gowns and caps that can be washed and reused again and again. Medical professionals prefer multi-use equipment, designed to last. It is a 'no brainer' in this respect. But undoubtedly strong capitalist forces play a role here. Companies make a profit from the use of disposable equipment. And that is simply not sustainable.

It is difficult to consider the need for sustainable emergency preparedness without mentioning European-made equipment and medications. One thing is the enormous transport costs entailed in transporting disposable equipment around the world for single use in Norwegian medical practices and hospitals. Another is the failure to recycle packaging, and disposable equipment that cannot be reused but is incinerated as contaminated waste. As things stand, we are at the mercy of other countries' production – they decide what they want to produce, under what conditions, and to whom they want to sell their products. The solution requires proactive political governance with reshoring of production to Europe. Then we must be willing to pay standard wages to workers who produce what we so desperately need. And many of us would agree that is the least we can do.

A lack of climate leadership in the emergency preparedness field

We ought to examine our preparedness in connection with stockpiles in other countries. We must have clear agreements with the EU and the Health Emergency Preparedness and Response Authority (HERA)) in relation to medications and equipment to cope with contemporary crises (10). This is an important factor in deciding the question of whether Norway should become a member of the European Health Union. From the emergency preparedness perspective, this is absolutely essential. At present, national and international stockpiles are built up independently of each other with no coordination. The Norwegian Directorate for Civil Protection manages Norway's access to EU stockpiles while the health sector only has control of its own emergency stockpile. Does this mean 'duplication of stockpiling'? Are we missing out on opportunities for joint procurement? Who has a general overview of what is available? Are we competing for the same products such that prices are being pushed up – without the suppliers being confronted with sustainability requirements? Here there is great potential to agree on manufacturing requirements in respect of deliveries to both national and European emergency stockpiles, but this requires climate leadership in both the health and justice sectors. The leadership of the health service must ensure that emergency preparedness does not exacerbate the climate crisis.

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