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## Revealed: PPE stockpile was out-of-date when coronavirus hit UK

By **Channel 4 News Investigations Team**

**Channel 4 News obtains full inventory of the national pandemic stockpile – revealing vital safety gear was years out of date**

Revealed: PPE stockpile was out-of-date when coronavirus hit UK



Almost 80% of respirators in the national pandemic stockpile were out of date when coronavirus hit the UK.

Channel 4 News has obtained detailed stock lists that reveal exactly what was held, on the day coronavirus was declared an international emergency.

Around 200 million vital pieces of kit – including respirators, masks, syringes and needles – had all expired in the eight months before 30 January.

This included 20.9 million out-of-date respirators, from a total of 26.3 million. The tightly-fitting mouth masks are vital for filtering the air that NHS workers breathe.

The documents also reveal that more than half of the national stockpile of surgical facemasks had also expired.

In total, 45% of the 19,909 boxes holding PPE supplies had exceeded their use-by dates.

The documents suggest a failure by Public Health England and NHS Supply Chain's management company, Supply Chain Coordination Limited, to maintain the stockpile in a state of readiness.

Expired stock is excluded from distribution, meaning millions of boxes of kit could have been delayed from being sent to hospitals and care homes – just as the virus began to spread.

Millions of expired respirators weren't cleared for release until they were tested, between 10 March and 19 March. By this time, the UK was already suffering a desperate shortage of PPE.

## Protection

There are questions over whether expired PPE offers the same level of protection as equipment that is still within its use-by date.

More than three-quarters of the expired respirators were manufactured by US safety firm 3M, which provided guidance to Channel 4 News that said respirators past their shelf life should not be used.

The guidance, entitled 'Respirators Beyond Their Shelf Life – Considerations', said: "Most respirators have a limited shelf life, after which they are intended to be discarded. The longer a respirator is stored beyond its shelf life, or stored outside the recommended conditions, the less likely it is to perform at its full potential."

The guidance also links to a 3M blog about respirator shelf life that warns: "Over time, components such as the strap and nosefoam may

degrade, which can affect the quality of the fit and seal.”

3M has stated its FFP3 respirator models have a shelf-life of five years.

Channel 4 News has learned that a substantial number of the expired respirators in the pandemic stockpile were originally amassed between 2009 and 2010 and had already had their shelf life extended – sometimes twice before.

Other studies have also questioned whether out-of-date respirators offer the same levels of protection as in-date masks.

For instance, the US National Institute for Occupational Safety and Health (NIOSH) tested expired batches of similar 3M N95 respirators. It cleared them for use, but warned: “Users provided with any of these products should be forewarned to avoid a false sense of confidence; these devices may not provide the same level of protection as those that have not exceeded the designated shelf life.”

Photographs posted by medics on social media, and others sent directly to Channel 4 News, show boxes of respirators delivered to hospitals with use-by dates repeatedly extended. Some showed original expiry dates of 2012, extended to 2016, and then again to 2019 or 2020.

Some medical staff took to social media to share complaints that they had received respirators showing evidence of degradation.

Public Health England has stated that all the expired and relabelled products distributed from the stockpile had passed “stringent tests” to ensure items including respirators and surgical masks “remain fit for consumption”.

However despite requests from Channel 4 News it has not provided the test results.

## Blocked

As pressure grew on vital PPE supplies, unions and healthcare professionals criticised Public Health England and Supply Chain

Coordination Limited for the delays in distribution.

Channel 4 News understands both organisations received regular readouts of what the stockpile held.

Throughout 2019 hundreds of millions of products reached their use-by date. But the timing of public procurement contracts suggests the organisations' attempts to renew them failed to stem the tide of expirations, apparently impairing the country's ability to respond to a pandemic.

Expired stock is excluded from distribution, until tested and cleared, or replaced.

In all, 19.9 million FFP3 respirators expired between 1 June 2019 and 1 January 2020 and therefore could have been delayed until tests confirmed they could be readmitted.

More than 84 million facemasks also expired over the same period.

They represented the majority of the stockpiled respirators and facemasks.

In November 2019, Supply Chain Coordination Limited awarded a contract to test respirators and facemasks "to provide evidence-based assurance that products are suitable for readmittance to the stock set aside for distribution in the event [of] a pandemic".

But the process appeared to take months. Channel 4 News understands that samples of 4.6 million masks made by Cardinal Health were finally readmitted to the stockpile months after expiring – and just weeks before the peak of the UK Covid-19 epidemic. Warehouse workers were told how to relabel boxes, sticking new expiry dates over the old.

By March, more than 17 million respirators from manufacturer 3M were also out of date, and could not be distributed without being cleared.

On March 8, when the UK government initiated the drawdown of the pandemic stockpile, expired 3M masks remained untested meaning they could not be distributed.

With the virus spreading fast, a process that had previously taken months needed to happen in days. Testing was carried out between 10 March and 19 March. By this point, hospitals were facing a critical PPE shortage.

Five days later, on 24 March, the first public sign of the masks appeared, with soldiers rushing boxes of 3M respirators from the stockpile into hospitals that were already short of PPE.

To the dismay of medical staff, many displayed expired use-by dates. Apparently, there had been no time to relabel them.

## Stockpile

Following an outbreak of Swine Flu in 2009, the government established the UK's national pandemic stockpile, as an epidemic was seen as the number one threat on the national risk register. Half a billion pounds was spent on hundreds of millions of items to protect health workers in the case of an outbreak.

The documents obtained by Channel 4 News show the make-up of the stockpile on 30 January 2020 – the day the World Health Organisation declared the outbreak of novel coronavirus a Public Health Emergency of International Concern.

In all, it contained 48,998 pallets, and more than half a billion items.

The majority of the stock was held at a newly-built 373,000 square foot climate-controlled distribution centre in Merseyside, designed to house England's pandemic supplies with products also held for use by other parts of the United Kingdom.

The stockpile was split into nine sections, with PPE the largest. It comprised aprons, gloves, and eye protection that were all in date, as well as the largely expired respirators and facemasks.

The documents confirm it did not contain any gowns, despite the New and Emerging Respiratory Virus Threats Action Group (NERVTAG) recommending to Public Health England last year that they be bought.

A shortage of gowns has been a consistent hurdle for medics fighting the infection, with many forced to rely on the much flimsier plastic aprons.

Other stockpile sections include antibiotics, antivirals, and kit for administering drugs and vaccines.

Channel 4 News has also obtained evidence suggesting the stockpile had shrunk significantly over the last ten years, while the UK's population continued to grow.

A 'Consumable Procurement Specification List' from 2009 stipulated what should be stored as part of a £500 million stockpile. It recommended 28.1 million respirators, 190 million surgical masks, and 116.5 million combined needles and syringes.

However, by 30 January 2020 the stockpile held 10% fewer respirators – at 26.3 million. There were also 19% fewer surgical masks at 154.5 million, and 28% fewer combined needles and syringes at 84.2 million.

Aside from PPE, other areas of the stockpile had also fallen out of date.

The 2,409 pallets consisting of the 84.2 million combined needles and syringes had all expired in the five months between June 2019 and November 2019. And another store of 4.5 million needles had also all expired, on 31 May 2019.

An additional stockpile of 2.1 million sets of intravenous medical equipment had also exceeded its shelf life, within the six months between June and December last year.

Responding to the Channel 4 News investigation, a government spokesperson said: "The UK is one of the most prepared countries in the world and we have delivered more than 1 billion items of PPE since this global outbreak began."

"This is an unprecedented pandemic and we have taken the right steps at the right time to combat it, guided at all times by the best scientific advice, to protect the NHS and save lives."

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**Reporters: Ed Howker, Job Rabkin, Guy Basnett and Heidi Pett**

**If you have information, or know something that should be investigated, you can contact the Channel 4 News Investigations Team confidentially, by emailing: [c4investigations@itn.co.uk](mailto:c4investigations@itn.co.uk)**

**There is also information about other ways to contact us securely [here](#).**