



## **Maybe the fast food industry should be delivering the COVID vaccine**

by

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As stories emerge from overseas of wastage of COVID vaccine shipments through temperature failure, the AFCCC has urged the government's inquiry into vaccine security to adopt immediate steps to mandate verification of temperature at every step in the delivery process.

The inquiry is being conducted by the Parliamentary Joint Committee on Law Enforcement, and the AFCCC, in conjunction with Refrigerants Australia, has made a submission dealing with the transport and supply of vaccines in Australia.

Independent of the submission, the AFCCC is urging food and pharmaceutical shippers to think of cold chain transport as a quality management system. Too many people involved in moving produce through the cold chain think transporting a chilled item is as simple as putting it into the back of a refrigerated truck and waving it goodbye.

This is far from being compliant. Achieving compliance will demand a proper quality management system which is underpinned by temperature verification at every step of the way.

Those involved in vaccine transportation urgently need to revisit their quality management systems, if they have one.

We are not sure of the actual losses of all types of vaccine in Australia, but looking at the global figures, 25% is generally assumed lost due to temperature abuse, so we have to conclude the number would be similar here especially from what we hear anecdotally. It is absolutely certain that constant temperature maintenance is the major influencer for a product to reach its destination in good order and achieve its shelf life date.

The AFCCC submission suggests that the vaccine and food transporters could take a leaf out of the fast food franchise operations, which are among the few to recognise that robust cold chain practices deliver quality and risk-free products to consumers. Compliant cold chains in Australia exist mostly in these closed loop systems, in which third party providers are kept to a minimum or required to upgrade their transport and storage assets to meet continuous temperature control and monitoring.

The highest standards in these systems include monitoring both air and product temperatures, and door openings, which combined achieve security and temperature verification of the product and the cold chain assets. This allows for verification at individual steps, and intervention if an issue occurs during monitoring both of which deliver quality outcomes and loss reduction.

There are very few compliant end-to-end cold chains in Australia. Long distances, commercial pressures and multiple use of third-party providers continue to be the main reasons the majority of chains are broken. There is also a great falsehood held by a significant number of stakeholders that individual links in the chain can be observed as compliant, and therefore product validation is possible. This is an erroneous approach due to the fact that non-verification of all the links in the chain cannot provide product validation at the end.

This unfortunate situation has proliferated in recent years with the availability of electronic data coming from telematic devices in both storage and transport assets. Individual stakeholders flood their critical control points with data on the assumption this practice is sufficient for compliance by storing the data without verification and only sharing it when an issue occurs. This contravenes the basic principles of quality management.

Our recommendations to the government are headed with the critical compliance requirement that temperature must be verified at every step of the vaccine program, both on the ground and in the cloud. In addition, transport assets must comply to ISO standards of thermal efficiency and performance, with independent temperature monitoring capability online and offline and door monitoring capability.

Also recommended was the establishment of a dedicated cold chain portal to monitor temperature data from all stakeholders. The technology is now available via open application programming interface (API) connections between different devices, using encrypted data which will allow for independent and robust monitoring of temperatures, door openings and delivery times.

**ENDS**