Are packaging errors the real cause for food recalls and allergic reactions in Australia?

Letter to the editor

Giovanni A. Zurzolo a,b , Nilakshi T. Waidyatillake a, *Dianne E Campbell b,c and *Shyamali C. Dharmage a

*Equal senior

a Allergy and Lung Health Unit, Melbourne School of Population and Global Health, University of Melbourne.
b Centre for Food & Allergy Research, Murdoch Children’s Research Institute, Melbourne, Australia
c Department of Allergy and Immunology The Children’s Hospital at Westmead, University of Sydney, Australia.

Corresponding author
Dr Giovanni Zurzolo
Centre for Epidemiology and Biostatistics
Melbourne School of Population and Global Health the University of Melbourne
207, Bouverie Street
Carlton, Vic 3052
Tel +61 3 83440737
E mail giovanni.zurzolo@unimelb.edu.au

Acknowledgements

The authors would like to thank Food Standards Australia and New Zealand (FSANZ) for making this data available

Conflict of interest
None to declare

This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/jpc.14960

This article is protected by copyright. All rights reserved.
Letter to the editor

Are packaging errors the real cause for food recalls and allergic reactions in Australia?

Letter to the editor

Giovanni A. Zurzolo\textsuperscript{a,b}, Nilakshi T. Waidyatillake\textsuperscript{a}, *Dianne E Campbell\textsuperscript{b,c} and *Shyamali C. Dharmage\textsuperscript{a}

*Equal senior

\textsuperscript{a}Allergy and Lung Health Unit, Melbourne School of Population and Global Health, University of Melbourne.

\textsuperscript{b}Centre for Food & Allergy Research, Murdoch Children's Research Institute, Melbourne, Australia

\textsuperscript{c}Department of Allergy and Immunology The Children's Hospital at Westmead, University of Sydney, Australia.

Corresponding author
Dr Giovanni Zurzolo
Centre for Epidemiology and Biostatistics
Melbourne School of Population and Global Health the University of Melbourne
207, Bouverie Street
Carlton, Vic 3052
Tel +61 3 83440737
E mail giovanni.zurzolo@unimelb.edu.au

Acknowledgements
The authors would like to thank Food Standards Australia and New Zealand (FSANZ) for making this data available

Conflict of interest
None to declare

Reports suggest that unintended food allergen presence in processed foods caused by allergen cross-contact (i.e. food comes into contact with another food) may be the leading cause of contamination resulting in adverse reactions.
The aim of this study was to examine factors which contribute to undeclared allergens being present in processed foods in Australia, by examining food recalls.

Food recall data compiled by Food Standards Australia New Zealand (FSANZ) between 1 January 2009 and 31 December 2018 was collected and analysed. Poisson regression was used to examine trends in food recalls over the study period. Consent was not required for this type of study.

Over the period 2009-2018, FSANZ conducted 675 food recalls. Undeclared allergens (n=266, 39%), microbial contamination (n=176, 26%) and foreign matter (n=108, 16%) accounted for the majority of recalls. In mid-2016, FSANZ added another question to determine the cause of undeclared allergen recalls. For the period 2016-2018, packaging errors where the food product was either packed into incorrect packaging or was incorrectly labelled (n=51, 56%), supplier verification issues (n=15, 16%) and cross-contact (n=9, 10%) were the most commonly identified factors leading to recalls due to undeclared allergens [1] (Figure 1).

Our current results suggest that in Australia, packaging errors (i.e. product packed in the wrong packaging or incorrect labelling) are a leading cause of food recalls due to presence of undeclared food allergens, not allergen cross-contact. This finding may also explain the relatively high prevalence of consumer reported anaphylaxis to process food, as we have previously reported [2, 3]. Similarly in a 2002 study, Vierk et al reported that over a single year in the US, 34 consumers had experienced allergic reactions after consumption of recalled products [4].
Undeclared allergens in packaged foods was the most common reason for food recalls in Australia, with packaging errors the most commonly identified factor contributing to undeclared allergen recall. It is likely that many other cases of mislabelling, unintended food allergen contamination occurred and were not detected or reported. If all packaged food products could have been assessed and analysed for labelling errors and food allergen cross-contact, it is probable the numbers would be much higher. There is a need for improved packaging practices to minimise foods with undeclared allergens and increase food safety for food allergic consumers.

Figure 1 The cause for the recall from 2016-2018
References


The root cause of all undeclared allergens food recalls from 2016-2018
N=92

- Accidental cross contact (n=9)
- Lack of skills and knowledge (n=2)
- Packaging errors (n=51)
- Supply verification issues (n=15)
- Unknown (n=15)^

^ In mid-2016 FSANZ added another question to determine the leading cause of undeclared allergens recalls, since this was added later in the year, a full year of data is unavailable.

^ Due to food businesses not being able to determine the root cause or because FSANZ did not receive any information from the business following the recall.
Figure 1 Food recalls

The root cause of all undeclared allergens food recalls from 2016-2018
N=92 *

- Accidental cross contact (n=9)
- Lack of skills and knowledge (n=2)
- Packaging errors (n=51)
- Supply verification issues (n=15)
- Unknown (n=15)^

*In mid-2016 FSANZ added another question to determine the leading cause of undeclared allergen recalls, since this was added later in the year, a full year of data is unavailable.

^Due to food businesses not being able to determine the root cause or because FSANZ did not receive any information from the business following the recall
Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:
Zurzolo, GA; Waidyatillake, NT; Campbell, DE; Dharmage, SC

Title:
ARE PACKAGING ERRORS THE REAL CAUSE FOR FOOD RECALLS AND ALLERGIC REACTIONS IN AUSTRALIA?

Date:
2020-06-01

Citation:

Persistent Link:
http://hdl.handle.net/11343/275817