

- 3 Roodbeen RTJ, Schelleman-Offermans K. Naleving van de leeftijdsgrenzen voor alcohol in ketensupermarkten [Compliance of the alcohol age limit in Dutch supermarket chains]. Nijmegen, Nuchter, Kenniscentrum Leeftijdsgrenzen, 2016.
- 4 Roodbeen RTJ, Schelleman-Offermans K, Lemmens PHHM. Exploring and evaluating Dutch liquor store chains internal policies regarding the alcohol age limit: can self-regulation effectively increase compliance with the age

limit for alcohol? In: Paper presented at. Stockholm: 42nd Annual Alcohol Epidemiology Symposium of the Kettil Bruun Society; 2016.

- 5 Oostdijk A, Van Den Nieuwenhuizen D, Van Noort M. *De toepassing van (elektronische) leeftijdsverificatiehulpmiddelen & -systemen bij alcohol- en tabaksverkoop: Uitkomsten van een praktijkinventarisatie [The use of (electronic) age verification systems when selling alcohol and tobacco products; Results of a field inventory]*. Utrecht: Berenschot, 2014.

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Response to 'Compliance assessment issues in evaluating age verification tools: a commentary on "Van Hoof, 2016"'

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In a Commentary, Ms Schelleman-Offermans, Mr Roodbeen and Mr Schellens questioned elements of our recent short report. We thank these authors, and we will respond in this Letter.

In our study, two compliance processes for alcohol vendors were studied; appropriate ID and age verification followed by sales refusal (underage mystery shoppers), and appropriate ID and age verification followed by sales approval (reference age mystery shoppers).

In their comments on the results, Schelleman-Offermans *et al.* question the results for the 'reference age group'. In the 12 cases an ID was asked and the ID reader was not used, the ID was not inspected, and alcohol was sold without any ID and age validation, which is non-compliant behavior. Regarding the 'underage group', all 12 times the ID was asked, but not scanned, alcohol was sold to minors. Therefore, the data in the table are correct. Second, Schelleman-Offermans *et al.* 'take issue' with the way the compliance rates from purchase attempts with underage and the reference age mystery shoppers are combined, since, in their view, the definition of compliance in these two groups is essentially different. Even though the definition of the correct behaviour differs (i.e. vendors should sell alcohol to persons 18 years-of-age or older, and not sell alcohol to minors), the compliance processes are comparable: vendors need to (i) verify the ID and age of the customer, and (ii) make a decision accordingly (i.e. sell or not sell, based on the outcome of the age verification). In compliance research, different compliance rates are commonly combined into an overall compliance-performance score (see, e.g. Ref. 1).

Schelleman-Offermans *et al.* ask which stores were included, which is a legitimate question. The remote age verification system was studied in an independent supermarket chain in the country (not a member of the Dutch Food Retail Association (Centraal Bureau Levensmiddelenhandel; CBL)) The ID readers were studied in supermarkets of the 'Lid' chain; the chain with the highest compliance level (86.7%) of all supermarkets that are members of the Dutch Food Retail Association (CBL).² The supermarkets in the control group consisted of a mix of other chains.

The low compliance levels in the supermarkets using ID readers in our study (and the higher compliance levels the authors reported to

have found in their earlier study³) can be explained by two lines of reasoning. First, in our study, the mystery shoppers were allowed to use their own strategies, unlike the strictly protocolled mystery shopping studies as conducted by Schelleman-Offermans and colleagues.^{2,3} Comparing the outcomes of these studies demonstrates the bias in regular mystery shopping research; the 86.7% compliance in protocolled mystery shopping research² plummets to 36% when underage mystery shoppers use their own strategies (as they do in real life). Second, it is very well imaginable that vendors in supermarkets using ID readers suffer from overtrust in this technology, which is a common concern in other compliance fields, see e.g.⁴ If minors, for instance, present an ID that belongs to an older friend, vendors might simply scan that ID and not validate if the ID belongs to the bearer.

Without any scientific or even peer-reviewed support, the authors give their views on why the remote age verification system is currently out of use. Investigation by the Court in The Hague leads to another conclusion; the conviction of the Dutch Food Retail Association (CBL) and Jumbo Supermarkets for organizing a ban against, and ruling out, this particular system.⁵

CBL also supported the 2016 study from Schelleman-Offermans and colleagues.³

References

- 1 Pittet D, Hugonnet S, Harbarth S, *et al.* Document Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. *Lancet* 2000;356:1307–12.
- 2 Roodbeen RTJ, Schelleman-Offermans K. Naleving van de leeftijdsgrenzen voor alcohol in ketensupermarkten [Compliance of the alcohol age limit in Dutch supermarket chains] [Internet]. Nijmegen, 2016. Available at: <http://nuchter.nl/wpcontent/uploads/2016/10/naleving-van-de-leeftijdsgrenzen-voor-alcohol-inketensupermarkten-2016.pdf>
- 3 Roodbeen RTJ, Schelleman-Offermans K, Lemmens PHHM. Alcohol and Tobacco Sales to Underage Buyers in Dutch Supermarkets: Can the Use of Age Verification Systems Increase Seller's Compliance? *J Adolesc Health* 2016;58:672–8.

- 4 Inagaki T. Traffic systems as joint cognitive systems: Issues to be solved for realizing human-technology coagency. *Cogn Technol Work* 2010;12:153–62.
- 5 Legal Court Verdict The Hague Court against CBL. Available at: <http://deeplink.rechtspraak.nl/uitspraak?id=ECLI:NL:RBDHA:2016:2480> English translation: <http://>

www.prnewswire.com/news-releases/the-hague-court-dutch-alcohol-and-tobacco-id-campaign-in-violation-of-anti-trust-legislation-300256112.html

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Response to Behbod B *et al.* Environmental and Public Health Tracking to Advance Knowledge for Planetary Health

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The Viewpoint on Environmental Public Health Tracking by Behbod *et al.* is both welcome and timely.¹ We need new ways to characterize, monitor, and respond to the changing nature and distribution of environmental stresses; new challenges as well as old ones affecting us in unexpected ways. It is important that the public health community re-evaluates the role and application of routine environmental monitoring and service data and learns to apply these using innovative methods. Another dynamic is the apparent divergence between professional and lay interests reflected in a research focus on large-scale issues such as climate change rather than the more immediate local impacts of a poor quality physical, economic and social environment. Developing an effective response is complicated by the interactions between environmental, biological and social systems meaning that relatively little is actually known about which parts of the contemporary environment, or combinations thereof, have the most important effects or indeed how. However one thing is abundantly clear as Behbod identifies; poor people are almost invariably more exposed to environmental and public health pressures.² There is also an emerging consensus that there is something about being poor that makes people more vulnerable to those exposures, an indefensible injustice.²

However, we do not necessarily need big science in response. Indeed there are good reasons, including cost, for developing local Tracking programmes. A cost neutral model has been developed to meet local needs in Sandwell UK, one of the poorest communities in Europe with a major post-industrial environmental contamination legacy. This includes analyses of public health nuisances, the efficacy of local authority practice, local horizon scanning, and the innovative use of industrial quality control methods to target interventions most effectively as well as the routine background

surveillance of environmental insult and environmentally related disease.³ While still in a pilot form, this programme, using routinely available data and consultation with professionals, politicians and the public, has identified the most important local environmentally related public health issues, described their distribution, quantified their impact, and influenced practice. Using an ecological model of public health has generated assessments and interventions that would not have otherwise been considered and an asset-based approach was attractive to politicians leading to investment in ‘urban greening’ interventions and commitment to improve cycling and walking opportunities. The full potential of Tracking will only be realized at larger spatial scales and we are excited that other municipalities in the West Midlands are exploring joining the programme. The economies of scale available mean that it is entirely realistic to develop a national Tracking system at very modest cost and a European collaboration sharing methods, experiences and data would add a huge dividend to its products.

References

- 1 Behbod B, Lauriola P, Leonardi G, *et al.* Environmental and public health tracking to advance knowledge for planetary health. *Eur J Public Health* 2016;26:900.
- 2 Royal College of Physicians. *Every Breath We Take: The Lifelong Impact of Air Pollution. Report of a Working Party.* London: RCP, 2016.
- 3 Saunders PJ, Middleton JD, Rudge G. Environmental public health tracking: a cost-effective system for characterizing the sources, distribution and public health impacts of environmental hazards. *J Public Health* 2016; doi: 10.1093/pubmed/fdw130.