Bednarek, M. & G. Carr (2019) Diabetes coverage in Australian newspapers (2013-2017): A computer-based linguistic analysis. *Health Promotion Journal of Australia*. Early View https://doi.org/10.1002/hpja.295 [authors' pre-print version]

Abstract

Issue addressed

This study analysed diabetes coverage in 12 Australian metropolitan/national newspapers over a period of five years (2013-2017). It aimed to describe quantitative tendencies in diabetes coverage (amount of articles per newspaper and over time) and to identify potential discrepancies between diabetes coverage and societal prevalence of diabetes. The study addressed the following research questions, with a focus on language use:

- How frequent are mentions of different types of diabetes?
- How are people with diabetes referred to?
- How frequent and how distributed are mentions of Aboriginal and Torres Strait Islander peoples and matters?

Methods

Data were collected in electronic format, manually classified, and processed using a specialised software program, with a focus on quantitative analysis.

Results

577 articles were classified as news and 117 were classified as 'non-news'. The *Australian Financial Review* published the fewest items, followed by the *NT News*, while the *West Australian* and the *Advertiser* published the most. References to "type 2" appear slightly more frequent and more distributed than to "type 1" diabetes. The labelling of people with the noun *diabetic/s* occurs in about a quarter of the dataset. References to Aboriginal and Torres Strait Islander peoples or matters appear to be extremely rare in the analysed dataset.

Conclusions

Diabetes coverage does not fully align with incidence of diabetes among Australians, and problematic language practices such as the labelling of people as 'diabetics' continue to occur.

So what?

Given the agenda-setting function of the news media, new strategies may be needed to change how Australian metropolitan and national newspapers cover diabetes, especially in relation to incorporating Aboriginal and Torres Strait Islander voices and perspectives.

Diabetes coverage in Australian newspapers (2013-2017): A computer-based linguistic analysis

Introduction

Diabetes is a major health problem in Australia and worldwide. It is the fastest growing chronic condition in Australia; approximately 1.7 million Australians have diabetes, and a further 2 million are estimated at high risk of developing type 2 diabetes.[1] It has an estimated yearly cost of $14.6 billion, and in 2017 diabetes was the seventh leading cause of death.[1,2] These trends are reflected globally; in 2017 there were 424.9 million people with diabetes, with a total healthcare expenditure of USD 727 billion.[3] These figures are expected to rise significantly by 2045.[3]

Against this backdrop, it is important to consider the role of news media in shaping public perception of health issues, as well as considering its impact on policy, funding, and research. The media influences *what* is considered important and worth reporting ('agenda setting'),[4] but also *how* an issue is reported ('framing').[5] In the context of health news, media can influence who is seen as responsible for an issue, both in cause and solution.[6] It can position individuals as responsible for causing and therefore resolving their health issues,[7,8] or it can place emphasis on structural determinants, thereby increasing public support for societal-level changes.[9] Further, coverage can affect policy makers and the policy process,[10] with potential impacts for funding and research.

Diabetes reporting in print news has received some research attention, including in the United States,[10,11,12,13] Canada,[14] New Zealand,[6] and The Netherlands.[15] However, this has received little attention in Australia; to our knowledge, there is only one study on diabetes in the Australian news media (though note Tong et al.'s[16] work on the reporting of chronic kidney disease in Australian print and television news media, which offers some commentary on diabetes). Bailey & McCrossin[17] examined diabetes reporting before and after the publication of Diabetes Australia's guidelines on appropriate language for discussing diabetes ('A new language for diabetes').[18] Comparing newspaper articles from 2010 and 2014, they found that there was a significant decrease in the use of 'language to avoid' (e.g. *diabetic, disease*) and an increase in the use of 'preferred language' (e.g. *person with diabetes, condition*), both in article headlines and in the main body. However, articles which were responsible for the increase in 'preferred language' often still included 'language to avoid'.

While this study specifically analysed Australian diabetes reporting, other Australian research cites the *importance* of media (e.g. as it affects diabetes stigma).[19,20]

Most research on diabetes coverage in the news tends to employ classic methods such as content analysis or framing analysis (e.g. Gounder & Ameer[6]). A more recent approach to health communication has made use of computer-based linguistic analysis, which employs specialised software to analyse the data.[21,22] Our study method aligns with this new and innovative approach to media analysis. Our research questions thus focus specifically on the use of language:

- How frequent are mentions of different types of diabetes?
- How are people with diabetes referred to?
- How frequent and how distributed are mentions of Aboriginal and Torres Strait Islander peoples and matters?

As a backdrop to these questions, we will also report on the amount of articles per newspaper and over time. Results from both types of analysis will be interrogated in relation to what we know about societal prevalence of diabetes to identify potential areas of improvement.

Methods

In order to base our study on a recent, representative, and relatively broad sample, we analysed items that appeared in 12 Australian newspapers in the last five years preceding the start of the project (2013-2017):

- National: *The Australian Financial Review* (r-l); *The Australian* (r-l)
- NSW: *The Sydney Morning Herald* (and *The Sun Herald*) (l-l); *The Daily Telegraph* (incl. *Sunday Telegraph*) (r-l)
- Victoria: *The Age* (and *The Sunday Age*) (l-l); *Herald Sun* (incl. *Sunday Herald Sun*) (r-l)
- ACT: *The Canberra Times* (l-l)
- West Australia: *The West Australian* (r-l)
- NT: *The Northern Territory News* (incl. *Sunday Territorian*) (r-l)
- Queensland: *The Courier Mail* (incl. *Sunday Mail*) (r-l)
- Tasmania: *The Mercury* (r-l)
- South Australia: *The Advertiser* (r-l)

(r-l = right-leaning; l-l = left-leaning)

Where available, newspapers were chosen from both of Australia's main news organisations Fairfax (now Nine Entertainment) and NewsCorp, and Sunday editions were included. This study focusses on all types of diabetes (type 1, 2, gestational), to enable comparison of frequency of mention. The online database Factiva was thus used to retrieve any items that include *diabet** (any word starting with *diabet*, i.e. *diabetes, diabetic, diabetics, diabetic's*) in the headline or lead paragraph from 1 January 2013 to 31 December 2017, excluding identical duplicates within newspapers.[23] Certain items were excluded automatically through Factiva's optional news filter (personal announcements, obituaries, calendars, captions, letters, weather news, food items, routine traffic reports, sports and recreation stories). Each item in the search results was then surveyed manually to exclude further items following Gounder & Ameer's[6(p6)] criteria – namely, discarding short articles (fewer than 150 words), articles that discuss diabetes in non-humans, and articles that only mention diabetes in passing. Such excluded instances do contribute to the overall discourse around diabetes and would inform us about how words relating to diabetes are used in newspapers in general. However, creating a dataset similar to Gounder & Ameer's enables future comparison of results between Australia and New Zealand. In total, the Factiva search retrieved 1862 articles, with 1168 being subsequently excluded as not meeting selection criteria. It is possible that articles which focus on diabetes include relevant search terms in the body, but not in the headline or lead paragraph. However, a pilot study of items from two newspapers over a one-year period indicated that this would not be the case. While we cannot be 100 per cent certain that the search parameters retrieved every article on diabetes, the selected items are clearly 'representative of' newspaper items about diabetes. In other words, the sample allows us to adequately generalise about how language is used in recent Australian newspaper diabetes coverage.

Important information was logged for each included article in Excel (year, month, newspaper, author, credentials, headline) and each item was categorised broadly as 'news' or 'non-news', using the following operationalisation:

- News was defined as an item that described an event, happening or issue concerning other participants and where the reported event was either new, recent, or a new/recent development. News included hard news, soft news, research news, business news, tech news, health news, etc.
- Non-news included opinion pieces, advice, arguments, analysis/expert views, editorials, personal recounts or 1st person narratives, interview-only items, event

announcements, eulogies/obituaries, biographies, explainers, etc. As mentioned, Factiva's news filter automatically excluded other types of items (personal announcements, letters, etc).

The topic(s) for each article were also noted. Any problematic issues for classification were flagged by the research assistant and resolved by the lead researcher. Downloaded RTF ('rich text') files were then subjected to data cleaning and data splitting, resulting in a final dataset consisting of 694 plain text files (~250,000 words). The dataset was processed using a specialised computer program called WordSmith,[24] which enables identification of word forms and their frequency in and across texts in a dataset (through the WordList function). The program also includes a Concordancer (Concord) which allows manual inspection of each word form for qualitative analysis, for example to ascertain whether a word such as *diabetic* is used as noun or adjective. It thus becomes possible to combine quantitative and qualitative analysis. The quantitative analysis is the main focus of this study and focuses on frequency (e.g. number of articles or number of mentions of particular words or phrases), while the qualitative analysis focuses on language use (the types of linguistic constructions used to refer to people with diabetes). There are several advantages to computer-based linguistic analysis: it enables a focus on linguistic practice; it uncovers repeated patterns of language use that can remain hidden by other types of analysis; it allows the rapid analysis of a large amount of data; it is replicable (the dataset used in this study is available online; see https://sydneycorpuslab.com/corpora/).

Results

Of a total of 694 articles (about 250,000 words), 577 were classified as news and 117 were classified as 'non-news', showing a preponderance of news items as opposed to analysis, opinion, etc. Identified topics included causes, prevention, prevalence, treatment, symptoms, effects, secondary effects, cure, cost, fundraising, education, training, and Other (additional, rare topics that could not easily be classified into one of the other groups). All topics occurred in news and non-news items except for 'training' which was not present in non-news.

Tables 1-2 and Figure 1 show the number of articles per newspaper, per year and per month. Table 1 shows that the *Australian Financial Review* published the fewest texts, followed by the *NT News*, while the *West Australian* and the *Advertiser* published the most. The publications of articles per year is relatively stable, with only small fluctuations, possibly caused by events such as the anniversary of the Australian Diabetes Council in 2013 or the

opening of the Telethon Type 1 Diabetes Family Centre in 2015. Figure 1 shows spikes in July, August, and November, again most likely caused by events such as the National Diabetes Day (July) or World Diabetes Day (November). This correlation of frequency data with events (spikes/peaks, troughs) is well-known in computer-based research on newspaper data.[25,26]

All results are also influenced by the research design as well as external factors. For instance, many items from the *Daily Telegraph,* the *NT News* and the *Hobart Mercury* were not included in the dataset because they were short items (<150 words). *The Advertiser* has a regular writer, Susan Bellman, who is a 'diabetes educator, dietitian and pharmacist', which might (partly) explain why *The Advertiser* has a large number of articles on diabetes.

<Table 1 Number of articles per newspaper>

<Table 2 Number of articles per year>

<Figure 1 Number of articles per month>

Table 3 shows the frequency and distribution of the exact phrases "type 1", "type 2" and "gestational diabetes" in the dataset,[27] surprisingly indicating that instances of "type 2" are only slightly more frequent and more distributed than "type 1".

<Table 3 Types of diabetes>

<Table 4 Words starting with "diab">

Table 4 provides information for all relevant word forms starting with the string "diab". *Diabetes* is most frequent, followed by *diabetic* and *diabetics*. Forms such as "diabetesresearchfoundation" do not represent typos; rather all occur in web or email addresses. In other contexts, the names of relevant organisations occur with different spelling (i.e. with spaces between words) and these would be included in the frequency count for *diabetes* (e.g. *Diabetes Australia*: 109 instances in 85 texts; *Diabetes Research Foundation*: 34 instances in 30 texts; *Diabetes Research WA*: 17 instances in 13 texts; *Diabetes WA*: 39 instances in 26 texts; *Diabetes SA*; 9 instances in 7 texts). Note that *diabetic* can be used as both adjective (e.g. *diabetic Australians*) and noun (e.g. *a diabetic*). In total, 326 instances in

about a quarter of the dataset are noun uses (67 singular), i.e. labelling people with diabetes as *diabetic* or *diabetics*. For example,

(1) Sara Beale, a type 1 **diabetic**, collapsed after she gave herself too much insulin so she could have a slice of her daughter's birthday cake (<text_id="H14N018">)
(2) A **diabetic** himself, Mr Balmana uses his status in the community to encourage others to keep their appointments and make good lifestyle choices. (<text_id="T15N006">)
(3) **Diabetics** can lose consciousness without knowing their blood sugar levels have dropped and deaths can occur overnight. (<text_id="H14N011">)

In addition, of the adjectival uses of *diabetic*, 48 instances are followed by references to people (*adolescents, Australians, boy, child, children, daughter, employees, kids, patient, patients, peers, people, pupils, students, sufferers, teens, wife, women*). Through this particular linguistic construction (attributive adjective pre-modifying head nouns with human referents) the people referenced by the noun are assigned the quality or sub-class of being 'diabetic'. Another 15 instances are also directly related to humans, most often through predication (e.g. BE/BECOME *diabetic*), with the remaining instances modifying non-human nouns (e.g. *diabetic retinopathy*).

Other expressions of referring to people with diabetes in the dataset include the following:

- X *with … diabetes* (e.g. *people, adults, Australians, boy, children, kids, everyone, patients*)
- *BE diagnosed with … diabetes*
- *LIVE with … diabetes*
- *DEVELOP … diabetes*
- *HAVE … diabetes*
- *SUFFER from…; diabetes sufferer*

Significantly, references to Aboriginal and Torres Strait Islander peoples (e.g. through expressions such as *Indigenous Australians*; *Aboriginal communities*) or matters (e.g. through expressions such as *Indigenous diets*; *Aboriginal Diabetes Study*) appear to be relatively rare in the dataset, as indicated by the frequency and distribution of word forms in the WordList (see Table 5).

<Table 5 Potential references to Aboriginal and Torres Strait Islander Australians or matters>

A search for "Aboriginal or Aborigines or Indigenous or Torres Strait Islander" identifies 135 entries across 36 files, but this also includes one instance of *non-Aboriginal* and 14 instances of *non-Indigenous*. This low frequency (f) and distribution (d) can be compared to those of the word forms *people* (f = 1,238; 23rd most frequent; d = 441 texts; 30th most distributed), *Australia* (f = 448; 76th most frequent; d = 267 texts; 65th most distributed), *Australian* (f = 323; 106th most frequent; d = 226 texts; 84th most distributed), and *Australians* (f = 395; 83rd most frequent; d = 223 texts; 89th most distributed). These results demonstrate that the Australian context is significant to a considerable number of texts (cf. *Australia, Australian, Australians*) and that people are also widely mentioned in this dataset (cf. *people, Australians*).

Discussion

In relation to this study's aim to identify potential discrepancies between diabetes coverage and societal prevalence of diabetes, four of the results stand out as particularly worthy of discussion: While it is not surprising that the specialist newspaper the *Australian Financial Review* published the fewest items, the low occurrence of articles (that are longer than 150 words) in the *NT News* is problematic. If we consider the number of registrants on the National Diabetes Services Scheme, the Northern Territory and South Australia have the highest percentages in Australia,[28] but the *NT News* published only 21 texts compared to the *Advertiser*'s 110.[29] In contrast, the *West Australian* published the most articles in the time period under consideration, despite having the lowest percentage of registrants in Australia.

In addition, it is well-known that Aboriginal and Torres Strait Islander people are more likely to have diabetes than non-Indigenous Australians.[30,31,32,33] This, however, does not seem to be reflected well in news items about diabetes in national and metropolitan newspapers. References to Aboriginal and Torres Strait Islander people or matters appear to be sorely lacking in such news coverage about diabetes – whether such references are present in local, regional, or social media is a matter for future research.

Another concern is the fact that instances of "type 2" are only slightly more frequent and more distributed than "type 1" – this does not correlate with the fact that type 1 diabetes represents only 10% of all diabetes, whereas type 2 diabetes represents 85% of all diabetes (Diabetes Australia[1]).

Finally, while the labelling of people as *diabetic/s* only occurs in about a quarter of the data, that such referring expressions occur in published articles is arguably problematic, given Diabetes Australia's position statement on language.[18] The argument is that such labelling is bad practice, as it reduces people to their disease – alternative expressions such as *person*/*people with diabetes* are therefore preferred (Diabetes Australia;[18] Kath Williams, personal communication, 6/4/2018). Notably, *people with … diabetes* does occur frequently in the data, but it has not completely replaced the use of *diabetic/diabetics* in Australian newspapers.

Conclusion

Using computer-based linguistic analysis, this article presented a first view of news coverage about diabetes in Australia (2013-2017), uncovering potential areas in need of improvement. Given the agenda-setting function of the news media, new strategies may be needed to change how Australian metropolitan and national newspapers cover diabetes, especially in relation to references to Aboriginal and Torres Strait Islander peoples or matters. In this respect, it is crucially important to incorporate the voices and perspectives of Aboriginal and Torres Strait Islander people, rather than only mentioning them or referring to them.

This study needs to be complemented with additional research. Although the data made use of a representative sample of Australian national and metropolitan newspapers, local, regional or online media were not included, nor was radio and audio-visual broadcast media. Analysing such types of media would provide a more comprehensive view of news coverage about diabetes, although the collection and analysis of data would be time-consuming. Research into how such media are consumed and responded to, including by key stakeholders, would also be important. The dataset itself should be subjected to further analyses, both quantitative and qualitative in nature. Thus, future research should assess issues such as causation, responsibility, and stigma in relation to diabetes reporting, for example through qualitative analysis of frames (episodic/thematic; individualized/societal).[34] Qualitative research is also necessary to identify uses of the terms *Aboriginal, Aborigines, Indigenous* or *Torres Strait Islander* in the texts where they occur. Differences between the 'news' and 'non-news' subsets should be explored, as well as differences between individual newspapers. How 'diabetes' is constructed as newsworthy (as worth of being news) can also be analysed using a combination of qualitative and quantitative methods.[35,36]

References (and endnotes)

[1] Diabetes Australia. Diabetes in Australia [Internet]. Canberra ACT: Diabetes Australia; 2018 [cited 18 July 2018]. Available from https://www.diabetesaustralia.com.au/diabetes-in-australia

[2] Australian Bureau of Statistics. Causes of death, Australia, 2017 [Internet]. Canberra ACT: Australian Bureau of Statistics; 2018 [cited 29 November 2018]. Available from http://www.abs.gov.au/ausstats/abs@.nsf/mf/3303.0

[3] International Diabetes Federation. Diabetes Atlas. 8th ed. Brussels: International Diabetes Federation; 2017.

[4] McCombs ME, Shaw DL. The agenda-setting function of mass media. The Public Opinion Quarterly. 1972;36(2):176-187.

[5] Entman R. Framing: toward clarification of a fractured paradigm. J Commun. 1993;43(4):51-58.

[6] Gounder F, Ameer R. Defining diabetes and assigning responsibility: how print media frame diabetes in New Zealand. J Appl Commun Res. 2017;46(1):93-112. doi:10.1080/00909882.2017.1409907

[7] Iyengar S. Framing responsibility for political issues: The case of poverty. Polit Behav. 1990;12(1):19-40.

[8] Weiner, B. Metaphors in motivation and attribution. Am Psychol. 1991;46(9):921-930.

[9] Niederdeppe J, Gollust SE, Jarlenski MP, Nathanson AM, Barry CL. News coverage of sugar-sweetened beverage taxes: pro- and antitax arguments in public discourse. Am J Public Health. 2013;103(6):e92-e98.

[10] Gollust SE, Lantz PM. Communicating population health: print news media coverage of type 2 diabetes. Soc Sci Med. 2009;69(7):1091-1098.

[11] Rock M. Diabetes portrayals in North American print media: a qualitative and quantitative analysis. Am J Public Health. 2005;95(10):1832-1838.

[12] Coleman R, Thorson E, Wilkins L. Testing the effect of framing and sourcing in health news stories. J Health Commun. 2011;16(9):941–954.

[13] Stefanik-Sidener K. Nature, nurture, or that fast food hamburger: media framing of diabetes in *The New York Times* from 2000 to 2010. Health Commun. 2013;28(4):351-358.

[14] Hoffman-Goetz L, Shannon C, Clarke JN. Chronic disease coverage in Canadian Aboriginal newspapers. J Health Commun. 2003;8(5):475-488.

[15] van der Wardt EM, Taal E, Rasker J, Wiegman O. Media coverage of chronic diseases in The Netherlands. Semin Arthritis Rheum. 1999;28(5):333-341.

[16] Tong A, Chapman S, Sainsbury P, Craig JC. An analysis of media coverage on the prevention and early detection of CKD in Australia. Am J Kidney Dis. 2008; 52(1):159-170.

[17] Bailey J, McCrossin T. Communicating diabetes in Australian print media: a change in language use between 2010 and 2014? Aust N Z J Public Health. 2016;40(5):493-497.

[18] Speight J, Conn J, Dunning T, Skinner TC. Diabetes Australia position statement. A new language for diabetes: improving communications with and about people with diabetes. Diabetes Res Clin Pract. 2012;97(3):425-431.

[19] Browne JL, Ventura A, Mosely K, Speight J. 'I call it the blame and shame disease': a qualitative study about perceptions of social stigma surrounding type 2 diabetes. BMJ Open. 2013;3(11): e003384. doi:10.1136/bmjopen-2013-003384

[20] Browne JL, Ventura A, Mosely K, Speight J. 'I'm not a druggie, I'm just a diabetic': a qualitative study of stigma from the perspective of adults with type 1 diabetes. BMJ Open. 2014;4(7): e005625. doi:10.1136/bmjopen-2014-005625

[21] Brookes G, Baker P. What does patient feedback reveal about the NHS? A mixed methods study of comments posted to the NHS Choices online service. BMJ Open. 2017;7(4):1-11. doi:10.1136/bmjopen-2016-013821.

[22] Harvey K. Investigating adolescent health communication: a corpus linguistics approach. London: Bloomsbury; 2013. 240 p.

[23] Factiva provides access to either print or online versions of these newspapers. The print version was chosen, since the online versions only provided irregular, selected or interrupted coverage and dates of first availability were not provided. Similar or identical duplicates across different newspapers were not excluded. Items from the *Brisbane Times* were not included because of restricted account privileges; in addition, it is an online-only newspaper with no print edition. The dataset is described in detail in: Bednarek, M, Carr G. Guide to the Diabetes News Corpus (DNC); 2019 [cited 13 June 2019]. Available from https://sydneycorpuslab.com/services-and-projects/projects/.

[24] Scott M. WordSmith Tools version 7.0.0.159. Stroud; 2018.

[25] Gabrielatos C, Baker P. Fleeing, sneaking, flooding: a corpus analysis of discursive constructions of refugees and asylum seekers in the UK Press, 1996-2005. J Eng Linguist. 2008; 36(1):5-38.

[26] Gabrielatos C, McEnery T, Diggle P, Baker P. The peaks and troughs of corpus-based contextual analysis. International Journal of Corpus Linguistics. 2012;17(2):151-175.

[27] In addition, there are five instances of "T2" in one text, which also includes the form "type 2". There are zero instances of "T1".

[28] Diabetes Australia. Diabetes map [Internet]. Canberra ACT: Diabetes Australia; 2018 [cited 18 July 2018]. Available from http://www.diabetesmap.com.au/help.html

[29] It is possible that the Factiva database does not include all articles that were published in the respective newspapers. However, for each newspaper in the dataset, Factiva states that it has 'full coverage'. In addition, we ran a trial search across two different newspaper databases (Factiva and Lexis Nexis) for 2017 retrieving all items with "diabetes" in the headline (excluding identical duplicates). Both databases retrieved an identical number of articles for both newspapers, with identical headlines. The newspapers chosen for the comparison were the *NT News* and the *Advertiser*, and the number of items retrieved confirm that the *NT News* seems to cover diabetes less than the *Advertiser* (2 items vs. 16 items), keeping in mind the limitations of the search parameters in this trial search.

[30] Burrow S, Ride K. Review of diabetes among Aboriginal and Torres Strait Islander people. Australian Indigenous Health *InfoNet*; 2016 [cited 9 March 2018]. 36 p. Available from http://www.healthinfonet.ecu.edu.au/chronic-conditions/diabetes/reviews/our-review.

[31] Nguyen HD, Chitturi S, Maple-Brown LJ. Management of diabetes in Indigenous communities: lessons from the Australian Aboriginal population. Intern Med J. 2016;46(11):1252-1259.

[32] Colagiuri, S. 2016. Diabetes in Indigenous Australians and other underserved communities in Australia. In: Dagogo-Jack S, editors. Diabetes Mellitus in Developing Countries and Underserved Communities. Switzerland: Springer; 2016: p. 151-163.

[33] Diabetes Australia. Aboriginal and Torres Strait Islanders [Internet]. Canberra ACT: Diabetes Australia; 2018 [cited 18 July 2018]. Available from https://www.diabetesaustralia.com.au/aboriginal-and-torres-strait-islanders

[34] Iyengar, S. Framing responsibility for political issues: The case of poverty. *Political Behavior 1990*; *12*(1): 19-40. Cited in Gounder & Ameer 2017.

[35] Potts A, Bednarek M, Caple H. How can computer-based methods help researchers to

investigate news values in large datasets? A corpus linguistic study of the construction of newsworthiness in the reporting on Hurricane Katrina. *Discourse & Communication. 2015;*9(2):149-172. doi:10.1177/1750481314568548.

[36] Bednarek M, Caple H. *The discourse of news values: how news organisations create newsworthiness.* Oxford/New York: Oxford University Press; 2017. 302 p.

Figures and Tables

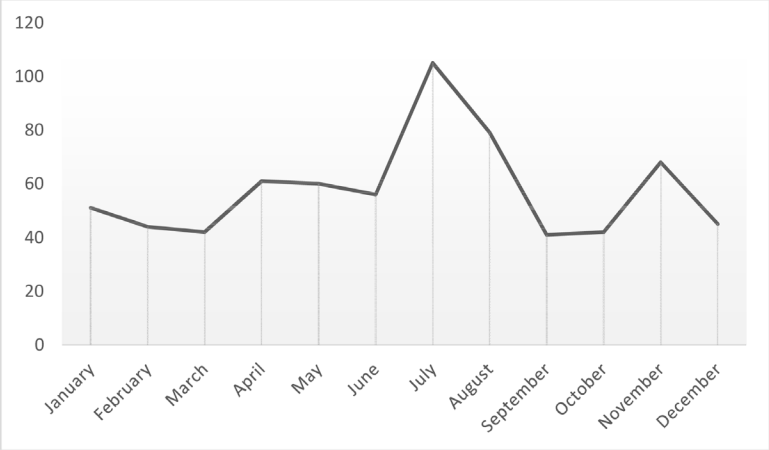

Figure 1 Number of articles per month

Newspaper	Texts
Australian Financial Review	9
NT News	21
Age (incl. Sunday Age)	28
Australian	41
Canberra Times	42
SMH (incl. Sun Herald)	47
Daily Telegraph	54
Hobart Mercury	56
Courier Mail	84
Herald Sun	87
Advertiser	110
West Australian	115

Table 1 Number of articles per newspaper

Year	Texts
2013	151
2014	119
2015	152
2016	140
2017	132

Table 2 Number of articles per year

"Type 1"	"Type 2"	"Gestational diabetes"
738 instances	972 instances	168 instances
284 texts (40.9%)	329 texts (47.4%)	51 texts (7.3%)

Table 3 Types of diabetes

Word	Frequency	Texts
DIABESITY	7	0.58
DIABETES	4,836	678
DIABETESAUSTRALIA	1	0.14
DIABETESCOUNSELLING	1	0.14
DIABETESQLD	1	0.14
DIABETESRESEARCH	1	0.14
DIABETESRESEARCHFOUNDATION	1	0.14
DIABETESRESEARCHWA	6	0.86
DIABETESSA	3	0.43
DIABETESVIC	1	0.14
DIABETESWA	10	0.86
DIABETIC	295	169
DIABETICS	262	148
DIABETIC'S	2	0.29
DIABETOLOGIA	16	2.31
DIABEX	5	0.29

Table 4 Words starting with "diab"

Word form	**Frequency (f)**	**Number of texts (distribution, d)**
Aboriginal	51	21
Aborigines	1	1
Indigenous	69	23
Torres Strait Islander	14	11

Table 5 Potential references to Aboriginal and Torres Strait Islander Australians or matters