

Proud or ashamed

In TUGboat, Volume 41 (2020), No. 1, the user group president Boris Veytsman ends his introduction with “When I read papers on COVID, I habitually check how they are typeset. When I see \TeX I feel a pride that somehow our efforts contributed to the common task.” I have to admit that I seldom go on the web searching for such content, but I did run into a publication from the Dutch RIVM, the institute that deals with matters like COVID.

Now, it must be said, that when I was a third the age that I’m now, I actually sometimes bought the nicely typeset and printed copies of government publications. They had at that time their own typesetting and printing facilities and many such documents (like those about long term environmental planning) always looked very nice. It did make me kind of feel proud. But those times are gone, and nowadays we often get pretty mediocre stuff. There are however exceptions, like the MH17 report named : ‘Report MH17 crash’, which looks quite okay. It was not made by \TeX but with InDesign, but could as well have been done with \TeX .

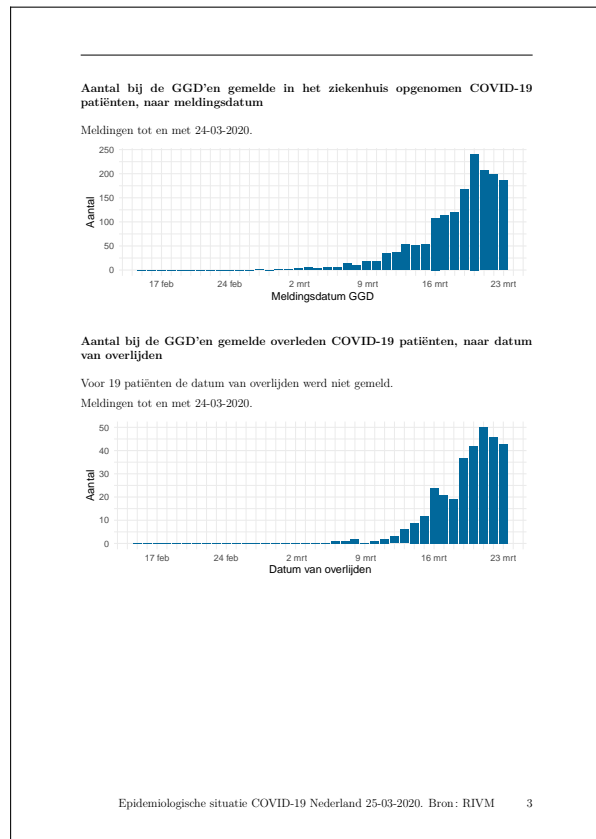
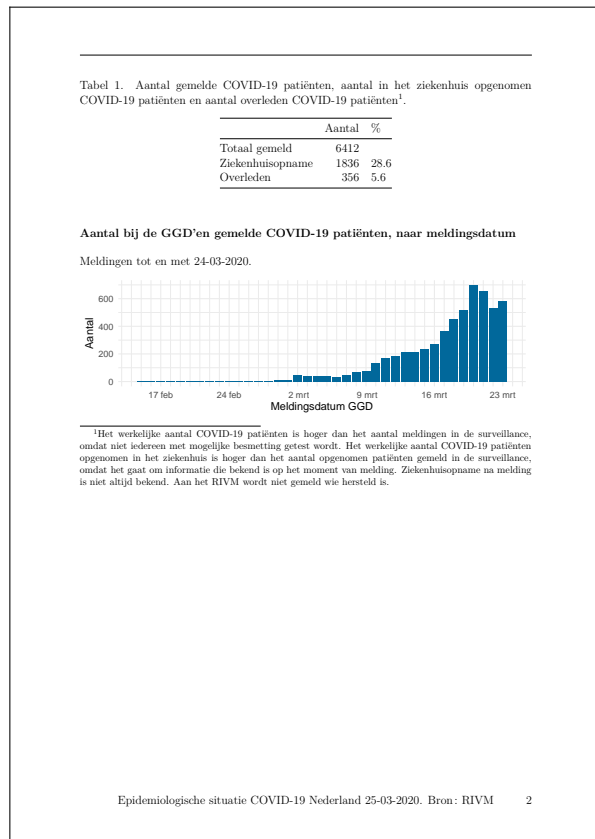


Figure 1.

Tabel 2. Leeftijdverdeling van bij de GGD'en gemelde COVID-19 patiënten, van in het ziekenhuis opgenomen COVID-19 patiënten en van overleden COVID-19 patiënten².

Leeftijdsgroep	Totaal	%	Ziekenhuisopname	%	Overleden	%
Totaal gemeld	6412		1836		356	
0-4	23 (0.4)		10 (0.5)		0 (0.0)	
5-9	6 (0.1)		1 (0.1)		0 (0.0)	
10-14	30 (0.5)		4 (0.2)		0 (0.0)	
15-19	42 (0.7)		4 (0.2)		0 (0.0)	
20-24	119 (1.9)		5 (0.3)		0 (0.0)	
25-29	322 (5.0)		23 (1.3)		0 (0.0)	
30-34	330 (5.1)		28 (1.5)		0 (0.0)	
35-39	283 (4.4)		20 (1.1)		0 (0.0)	
40-44	282 (4.4)		27 (1.5)		0 (0.0)	
45-49	460 (7.2)		87 (4.7)		0 (0.0)	
50-54	520 (8.3)		115 (6.3)		2 (0.6)	
55-59	602 (9.4)		131 (7.1)		2 (0.6)	
60-64	487 (7.6)		157 (8.6)		7 (2.0)	
65-69	484 (7.5)		226 (12.3)		24 (6.7)	
70-74	562 (8.8)		265 (14.4)		33 (9.3)	
75-79	599 (9.3)		275 (15.0)		70 (19.7)	
80-84	574 (9.0)		233 (12.7)		105 (29.5)	
85-89	426 (6.6)		167 (9.1)		80 (22.5)	
90-94	175 (2.7)		47 (2.6)		23 (6.5)	
95+	53 (0.8)		6 (0.3)		9 (2.5)	
Niet gemeld	23 (0.4)		4 (0.2)		1 (0.3)	
NA	1 (0.0)		1 (0.1)		NA NA	

Tabel 3. Man-vrouwverdeling van bij de GGD'en gemelde COVID-19 patiënten, van in het ziekenhuis opgenomen COVID-19 patiënten en van overleden COVID-19 patiënten.

Geslacht	Totaal	%	Ziekenhuisopname	%	Overleden	%
Totaal gemeld	6412		1836		356	
Man	3181 (49.6)		1155 (62.9)		226 (63.5)	
Vrouw	3199 (49.9)		673 (36.7)		128 (36.0)	
Niet gemeld	32 (0.5)		8 (0.4)		2 (0.6)	

²Het werkelijke aantal COVID-19 patiënten is hoger dan het aantal meldingen in de surveillance, omdat niet iedereen met mogelijke besmetting getest wordt. Het werkelijke aantal COVID-19 patiënten opgenomen in het ziekenhuis is hoger dan het aantal opgenomen patiënten gemeld in de surveillance, omdat het gaat om informatie die bekend is op het moment van melding. Ziekenhuisopname na melding is niet altijd bekend. Aan het RIVM wordt niet gemeld wie hersteld is.

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Tabel 4a. Aantal bij de GGD'en gemelde COVID-19 patiënten, in het ziekenhuis opgenomen COVID-19 patiënten en overleden COVID-19 patiënten met onderliggende aandoeningen en/of zwangerschap¹.

Comorbiditeit	Totaal	%	Ziekenhuisopname	%	Overleden	%
Totaal gemeld	6412		1836		356	
Ja	1748 (27.3)		974 (53.1)		191 (53.7)	
Geen onderliggende aandoening	1411 (22.0)		322 (17.5)		17 (4.8)	
Niet gemeld	3253 (50.7)		540 (29.4)		148 (41.6)	

Tabel 4b. Voorkomende onderliggende aandoeningen⁴ en/of zwangerschap van bij de GGD'en gemelde COVID-19 patiënten en in het ziekenhuis opgenomen COVID-19 patiënten en overleden COVID-19 patiënten². Meerdere onderliggende aandoeningen kunnen gemeld zijn per patiënt. De meest voorkomende onderliggende aandoeningen zijn Cardiovasculaire aandoening, Chronische longaandoening en Diabetes.

Comorbiditeit	Totaal	%	Ziekenhuisopname	%	Overleden	%
Totaal voorkomende aand.	2510		1455		319	
Zwangerschap	27 (1.1)		4 (0.3)		0 (0.0)	
Cardio-vasc. aand. en hypertensie	690 (27.5)		437 (30.0)		84 (26.3)	
Diabetes	310 (12.4)		213 (14.6)		49 (15.4)	
Leveraandoening	10 (0.4)		5 (0.3)		1 (0.3)	
Chron. (neuro)musculaire aand.	81 (3.2)		35 (2.4)		9 (2.8)	
Immunodeficiëntie	44 (1.8)		23 (1.6)		1 (0.3)	
Niersaandoening	113 (4.5)		69 (4.7)		23 (7.2)	
Chron. longaandoening	399 (15.9)		234 (16.1)		47 (14.7)	
Maligniteit	172 (6.9)		111 (7.6)		23 (7.2)	
Overig	664 (26.5)		324 (22.3)		82 (25.7)	

¹Het werkelijke aantal COVID-19 patiënten is hoger dan het aantal meldingen in de surveillance, omdat niet iedereen met mogelijke besmetting getest wordt. Het werkelijke aantal COVID-19 patiënten opgenomen in het ziekenhuis is hoger dan het aantal opgenomen patiënten gemeld in de surveillance, omdat het gaat om informatie die bekend is op het moment van melding. Ziekenhuisopname na melding is niet altijd bekend. Aan het RIVM wordt niet gemeld wie hersteld is.

²Totaal voorkomende aand. = Totaal voorkomende aandoeningen, Card. vasc. aand. = Cardiovasculaire aandoening, Chron. (neuro)musculaire aandoening = Chronische neurologische of neuromusculaire aandoening, Chron. longaandoening = Chronische longaandoening

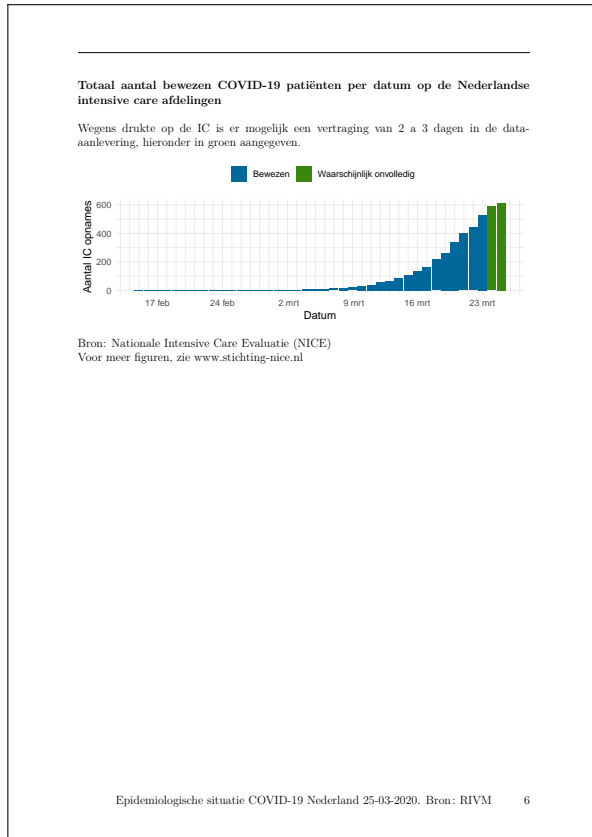
Epidemiologische situatie COVID-19 Nederland 25-03-2020. Bron: RIVM 5

Figure 2.

Back to COVID and the RIVM, I was actually quite horrified by a document I saw online, named ‘Epidemiologische situatie COVID-19’. The document properties gave no indication how it has been produced. The producer is Acrobat Pro but that can as well be a backend job. The first page looks like your average word processor text, some colourful graphics might have been produced by a desktop publishing program, and the rest (running text and some tables) scream \TeX .

Now it’s not my habit to criticise documents this way but in the perspective of Boris’ remark I think the \TeX community should be honest about reality: there are lots of nice looking documents around made by \TeX but maybe even more horrible looking ones. The fact that we have \TeX doesn’t mean that, to quote him again, “Following Knuth, we use rational methods to create beautiful pages in service of presentation of beautiful thoughts.”. We can also say “Ignoring Knuth, we use irrational methods to create awful pages in service of presentation of whatever we want to look scientific.”.

On the second page we notice a couple of things. There is hardly any text and most is actually in a footnote that ends up at the end of the text and not at the bottom of the page. Yes, because \TeX can do footnotes, users love them. This is a typical example of where a footnote could have been running text. The table caption is at the top of the table, but the graphic has an unnumbered title. The spacing around the table is kind of weird as is the spacing around the graphics. The first graphic on the third page probably fits on the second page.



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Tabel 5. Aantal bij de GGD'en gemelde COVID-19 patiënten per provincie⁵.

Provincie	Aantal	%
Totaal gemeld	6412	
Drenthe	60	0.9
Flevoland	85	1.3
Friesland	53	0.8
Gelderland	695	10.8
Groeningen	84	1.3
Limburg	786	12.3
Noord-Brabant	1915	29.9
Noord-Holland	870	13.6
Overijssel	326	5.1
Utrecht	574	9.0
Zeeland	77	1.2
Zuid-Holland	887	13.8

⁵Het werkelijke aantal COVID-19 patiënten opgenomen in het ziekenhuis is hoger dan het aantal opgenomen patiënten gemeld in de surveillance, omdat het gaat om informatie die bekend is op het moment van melding.

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Figure 3.

Page four and five also have tables and of course footnotes. The running text is moved to the table captions. In the tables we see parenthesis around the percentage entries and the percentage symbol is not centred. Again, like footnotes, \TeX ies often claim that the program can make nice tables but when a macro package doesn't help (or steer) them doing just that such a claim is useless. Last year I attended a session where some hundred students graduated and the teachers showed some results from papers on the beamer. Most of the tables (the showcase I presume) looked horrible: bad spacing and lots of rules. All done in \TeX , but not showing 30 years of progress in usage. Lucky me that my colleague and I were probably the only adults in the room that immediately recognised \TeX , so no harm was done to its reputation.

To the tables in the COVID document we can point out that the captions could have been centred and maybe in bold and there is no apparent reason for these tables to run into the margin. There is also no reason for the bad rendering of the paragraph in the footnotes. Footnote number 4 looks like some "text done in math mode" job to me. Pages six and seven could have been one page, and in fact the whole document could have been at least one page less.

Now, one can blame the composer of the document but we can equally well blame the software. If an argument for using \TeX is the structured approach that leads to quality, then here it failed. Actually, I see no properties that give reason for even using \TeX . A word document might even look better.

Now the reason for even going in such detail about an otherwise irrelevant aspect of presenting data, is that I noticed that in presenting information about COVID to

a countries inhabitants, some governments actually have a very well designed web presence: nicely designed websites, adaptive graphics, tables with nice colours and spacing. There is absolutely no reason for not having a variant in print done with \TeX . Actually, there is probably no program like \TeX that can produce a flow of documents with a high degree of consistency in rendering.

I think that after many decades of \TeX its qualitative properties are seldom exposed by publishers (or equivalents). It's common users who make the beautiful documents. It's them who sit behind the screen and spend time, maybe even struggling, experimenting, trialing and erroring in order to come to something that they think looks beautiful. When you use \TeX you enter a feedback loop. You have to spend time, and if you don't want to do that, don't use it. It's those users who gets inspired by Don Knuths legacy, nice looking manuals, maybe articles in user group journals, posts on mailing lists, help on forums. Forget about the publishers, they seldom care. Forget about institutions that demand usage of \TeX for e.g. thesis and reports using some decades old template. It's the freedom of users that produce nice stuff. And often these documents don't scream \TeX . I bet that when one can recognise a \TeX document, it often is also a not so nice looking document. Don Knuths work is of course the exception to this rule. I therefore end with quoting Boris again: " \TeX was born from the striving for beauty and rationality." With that I completely agree.

You can find the mentioned texts at

- www.tug.org/TUGboat/Pres/tb127pres.pdf
- www.onderzoeksraad.nl/en/media/attachment/2018/7/10/debcd724fe7breport_mh17_crash.pdf
- www.rivm.nl/sites/default/files/2020-03/Epidemiologische_situatie_COVID-19_2025_20maart_202020_20Nieuw.pdf

Hans Hagen