



Transparency beyond information disclosure: strategies of the Scandinavian public health authorities during the COVID-19 pandemic

Øyvind Ihlen, Sine Nørholm Just, Jens E. Kjeldsen, Ragnhild Mølster, Truls Strand Offerdal, Joel Rasmussen & Eli Skogerbø

To cite this article: Øyvind Ihlen, Sine Nørholm Just, Jens E. Kjeldsen, Ragnhild Mølster, Truls Strand Offerdal, Joel Rasmussen & Eli Skogerbø (2022): Transparency beyond information disclosure: strategies of the Scandinavian public health authorities during the COVID-19 pandemic, Journal of Risk Research, DOI: [10.1080/13669877.2022.2077416](https://doi.org/10.1080/13669877.2022.2077416)

To link to this article: <https://doi.org/10.1080/13669877.2022.2077416>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 23 May 2022.



Submit your article to this journal [↗](#)



Article views: 477








View related articles [↗](#)



View Crossmark data [↗](#)

Transparency beyond information disclosure: strategies of the Scandinavian public health authorities during the COVID-19 pandemic

Øyvind Ihlen^a , Sine Nørholm Just^b , Jens E. Kjeldsen^c, Ragnhild Mølster^c,
Truls Strand Offerdal^a , Joel Rasmussen^d , and Eli Skogerbø^a 

^aDepartment of Media and Communication, University of Oslo, Oslo, Norway; ^bDepartment of Communication and Arts, Roskilde University, Roskilde, Denmark; ^cDepartment of Information Science and Media Studies, University of Bergen, Bergen, Norway; ^dSchool of Humanities, Education and Social Sciences, University of Örebro, Örebro, Sweden

ABSTRACT

The concept of transparency has been problematized in risk research. This exploratory study contributes to the risk literature by considering an established three-dimensional transparency framework (information substantiality, accountability, and participation) and discussing the opportunities for and challenges to risk communication in relation to the framework. Furthermore, we examine the strategies of Scandinavian health authorities during the COVID-19 pandemic and the different levels of public trust in these authorities. In general, Norwegian authorities received higher levels of trust than their Swedish and Danish counterparts. We argue that this was partly due to differences in transparency management. Our findings support the importance of the three transparency dimensions and indicate that transparency regarding uncertainties positively impacts levels of trust.

ARTICLE HISTORY

Received 13 October 2021

Accepted 16 April 2022

KEYWORDS

Transparency;
risk communication;
COVID-19

1. Introduction

Transparency in the form of openness and honesty is an ideal of democratic governance and of risk management more specifically. Recently, this ideal has also been used to evaluate public authorities' responses to the COVID-19 pandemic (e.g., Wardman 2020; Collins, Florin, and Renn 2020), with some governments and public health authorities being chastised for a *lack* of transparency. This has been the case in Sweden (e.g., Öhman and Rosén 2020, June 1) and in the UK, where the government has supposedly suppressed key reports and shunned "questions about the data and advise upon which decisions have been made" (Wardman 2020, 1106). In other countries, however, with South Korea and Norway being two prominent examples, transparency has been highlighted as a key positive factor for high levels of public trust in authorities (NOU 2021; Moon 2020, 654).

In general, many studies have found that trust is strengthened by transparency (e.g., Dixon et al. 2016; Holland, Seltzer, and Kochigina 2021; Clementson and Xie 2021; Fisher and Hopp

CONTACT Øyvind Ihlen  oyvind.ihlen@media.uio.no  Department of Media and Communication, University of Oslo, Oslo, Norway.

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

2020). Nonetheless, problems related to the concept of transparency have also been discussed. In particular, scholars have argued that transparency without contextualizing the information can create unnecessary public worry (Löfstedt and Way 2016). Therefore, calls have been made in the literature to develop more sophisticated understandings of the conditions under which transparency leads to trust (Löfstedt and Way 2016) and to conduct research that unpacks “the demands of communicating effectively in different political and sociocultural contexts” (Löfstedt and Wardman 2016, 1080). To this end, we provide a brief review of the literature on transparency, looking both at and beyond the risk field. We draw on an established three-dimensional transparency framework that highlights *information substantiality*, *accountability*, and *participation* (Balkin 1999; Lee and Li 2021; Cotterrell 1999; Auger 2014; Rawlins 2008). The first dimension refers to the provision of relevant and understandable information, the second to admitting mistakes and tolerating criticism, and the third dimension points to the public’s ability to provide feedback and express their needs. We illustrate the framework’s usefulness by analyzing the strategies of the Scandinavian health authorities during the COVID-19 pandemic. In all three countries – Denmark, Norway, and Sweden – trust in the authorities was and continues to be remarkably high compared to countries such as the UK, France, and Switzerland (Warren, Lofstedt, and Wardman 2021). One explanation for this is that the Scandinavian countries have long been high-trust societies (European Social Survey Round 9 Data 2018). However, we will argue that there are important differences in the countries’ public trust levels, with Sweden scoring the lowest, which may have to do with the already mentioned lack of transparency in the Swedish pandemic response. Overall, we posed the following research question: *What role did the three transparency dimensions play in the communication strategies of the public health authorities in Denmark, Norway, and Sweden during the COVID-19 pandemic?*

To answer the research question, we used a mixed-methods approach with the following data sources: qualitative interviews with the communication personnel of the Scandinavian public health authorities, field observations, analysis of the television appearances of public health authority representatives, and focus group research. Before presenting our approach in detail, we discuss the literature on transparency and provide contextual information. The article’s overall goal is to improve our understanding of transparency and the opportunities for and challenges to risk communication stemming from transparency management.

2. Literature review

Transparency is “broadly understood by the public to mean openness and honesty” (Löfstedt and Way 2016, 1082). Frequently, transparency is equated with the “disclosure of information,” which implies a simplistic understanding of the concept (Albu and Wehmeier 2014). To nuance this understanding, scholars have introduced several distinctions, such as real-time and retrospective transparency, transparency related to input, output, and outcomes (event transparency), and transparency regarding the policy/communication process (Heald 2006; Hood 2007).

Crucially, transparency is not unproblematic, and scholars have advised against dumping raw data into the public domain (Dixon et al. 2016; Löfstedt 2013; Way et al. 2016; Löfstedt et al. 2016). A study of the Canadian government’s communication strategy regarding the H1N1 influenza pandemic showed that such a strategy led to confusion among the public (Driedger, Maier, and Jardine 2021). In fact, the amount of information made available may lead to a “transparency paradox” (Stohl, Stohl, and Leonardi 2016), whereby an organization, wittingly or unwittingly, hides behind its own transparency. Thus, scholars have argued that transparency practices should be analyzed “as a form of *visibility management* with extensive and often paradoxical implications for the organizations and actors involved” [emphasis added] (Flyverbom 2016, 111-2). It is important to note that “full transparency” is an illusion, as transparency is always predicated on a selection process (Christensen and Cheney 2015).

To add further complexity, the question is not only what information to release but also *when* to release it. A pandemic, for instance, evolves across several phases and entails uncertainty (Koffman et al. 2020; Driedger, Maier, and Jardine 2021), thus raising the question of how transparent authorities should be about what they do *not* know. While some studies have found that health experts rarely communicate uncertainty explicitly or clearly during health crises (Han et al. 2021), the Norwegian Corona Commission commended the Norwegian public health authorities for being transparent about their limited knowledge and ambiguous conclusions (NOU 2021). In another study, we argue that contrary to previous research, the health experts we studied *did* acknowledge uncertainty, often explicitly, in part to bolster their credibility (Kjeldsen, Mølster, and Ihlen 2022). Looking at the literature, most researchers agree that such communication can be risky but may not necessarily have negative effects on people's trust in the communicators (Gustafson and Rice 2020; van der Bles et al. 2020; Brashers 2001; Liu, Bartz, and Duke 2016; Wardman and Lofstedt 2020). Quite the opposite, as we have already mentioned, transparent communication of uncertainty can bolster credibility, although this strategy may entail long-term effects with intermittent variations, as one Danish study found: "transparent negative communication may indeed harm vaccine acceptance here and now but [...] it increases trust in health authorities" (Petersen et al. 2021, 1). The general conclusion, then, seems to be that "well-communicated uncertainty in risk information [...] may be able to achieve important risk communication goals with only limited effects on trust" (Balog-Way and McComas 2020, 840).

Transparency is typically discussed using an organization-centric perspective (Christensen and Langer 2009; Christensen and Cheney 2015), as it is the organization that decides "what, how and when to disclose" (Christensen and Cheney 2015, 80). Seeking to broaden this scope, many scholars (e.g., Rawlins 2008; Cotterrell 1999; Lee and Boynton 2017) have issued calls to look beyond the availability of information and to incorporate the perspectives and needs of audiences. To this end, transparency has been defined as

the deliberate attempt to make available all legally releasable information—whether positive or negative in nature—in a manner that is accurate, timely, balanced, and unequivocal, for the purpose of enhancing the reasoning ability of publics and holding organizations accountable for their actions, policies, and practices. (Rawlins 2008, 75)

This definition makes transparency a construct of subjective value and emphasizes the importance of people's perceptions as well as the performativity of the concept (Lee and Boynton 2017; Albu and Flyverbom 2019; Auger 2014). Therefore, transparency can be regarded as "the outcome of a process of alignment between the interpretations of external and internal actors" (Albu and Wehmeier 2014, 119). In this alignment process, transparency can come to mean different things to different stakeholders—what is transparent to one person may not be transparent to another (Matheus and Janssen 2019). Furthermore, the vast numbers of stakeholders of large organizations, such as the public health authorities, may entail highly different needs in terms of transparency. For instance, professionals such as researchers or journalists may want access to detailed protocols and data sets, while the public may ask for clear advice on how they should behave to protect themselves and others.

To address the definitions and criticism surveyed above, some normative demands, or "political virtues" (Balkin 1999, 393), have been suggested to better elaborate the different dimensions of transparency:

- Transparency concerns information substantiality. Disclosed information must be relevant, complete, accurate, reliable, and understandable. Transparency should enable stakeholders to monitor organizational activities and decisions (Bachmann, Gillespie, and Priem 2015). In fact, information substantiality was highly important during the COVID-19 pandemic (Lee and Li 2021).

- Transparency concerns accountability. An organization must present counter-arguments/perspectives, tolerate criticism, and freely admit when it makes mistakes (Lee and Li 2021). Stated differently, accountability concerns “the willingness and responsibility to try to give a meaningful and accurate account of oneself, or of circumstances in which one is involved, or of which one is aware” (Cotterrell 1999, 419).
- Transparency requires public participation. Audiences play an active part in the creation of transparency (Albu and Wehmeier 2014) and must be given a chance to provide feedback and express their needs. Therefore, organizations must engage with publics (Lee and Li 2021).¹ When transparency is “enacted through genuine public engagement in a decision-making process,” trust increases [emphasis added] (Dixon et al. 2016, 1168).

It is reasonable to assume that not all the above dimensions are equally important in every situation. In a pandemic, for instance, public health authorities are not necessarily blamed for the outbreak but rather for the possible lack of preparedness for and the subsequent handling of the pandemic. In this regard, an online survey of US citizens during the COVID-19 pandemic found that information substantiality and participation affected trust, with no similar effects detected for accountability (Lee and Li 2021). Moreover, a UK study even concluded that some members of the public did not demand transparency during the COVID-19 pandemic. These respondents accepted keeping some information hidden if this could help avoid “panic” and “misunderstanding” or prepare the ground for “simplified messages” to tackle the pandemic (Enria et al. 2021). Thus, transparency needs to be seen according to the crisis and organization types and in relation to the larger external environment in terms of regulations and social norms (Lee and Boynton 2017). In other words, we need to study transparency and its three dimensions in particular contexts. In the next section, we provide a short background for our cases before detailing the methodology of the study.

3. Background of the cases

During the early phase of the COVID-19 pandemic, the Scandinavian countries experienced the so-called rally-round-the-flag effect, which involved high levels of trust in public health authorities and their abilities to handle the pandemic (Esaïsson et al. 2021). Since then, however, the countries’ trajectories in terms of public trust levels have been different. In Norway, trust in public health authorities fell sharply in February 2020, rose to approximately 80 percent after lockdown measures were introduced, and remained more or less unchanged throughout 2020 (Directorate of Health 2021). In Sweden, public trust dropped throughout 2020, and in February 2021 only 57 percent of the public trusted public health authorities, down from 75 percent in March 2020. In Denmark, the picture was a bit more mixed, with the government bearing the brunt of the criticism due to taking center stage during the pandemic, which meant that public health authorities were left to play a less important role. When the criticism became harsh, the government attempted to shift blame onto public health authorities. In a November 2020 poll, trust in the Danish government hit an all-time low, as only 60 percent of the public declared their trust to be above average (6–10 on a 10-point scale); since then, that number has gone back to 75 percent, which still is nowhere near the almost 90-percent mark of March 2020 (Petersen and Roepstorff 2021, 7). Overall, the trust in the Danish public health authorities fluctuated in accordance with the trust in the government, as revelations of disagreements between the authorities’ expert recommendations and the government’s political actions negatively impacted both institutions (Folketinget 2021).

At least three major factors can help explain these fluctuations: the aforementioned high levels of initial trust, the results of crisis management efforts, and communication. Regarding the perceived success of the authorities’ strategies, the numbers of deceased and hospitalized

persons is a good indicator. As of February 15, 2022, the death tolls related to COVID-19 were approximately 1,614 deaths per million in Sweden (16,465 deaths, population of 10.2 million) compared to 624 per million in Denmark (3,618 deaths, population of 5.8 million) and 275 per million in Norway (1,513 deaths, population of 5.5 million) (European Centre for Disease Prevention and Control 2022).

As for communication, the public Corona Commission in Norway stated that the “authorities have largely succeeded in communicating with the population” (NOU. 2021, 27). In Denmark, the relationship between the health authorities and the Prime Minister’s office received significant attention, and a commissioned public report on the response to the pandemic highlighted a certain lack of transparency (Folketinget 2021, 421). At the time of writing, no Swedish public evaluation report has focused on communication specifically, but it has been remarked by scholars that the science-policy nexus gradually fell apart as “epidemiological experts advising the government clashed with medical experts” (Warren, Lofstedt, and Wardman 2021, 283). To sum up, we argue that communication strategies are crucial to properly understanding the different outcomes in terms of public trust in health authorities.

4. Methods

We used a mixed-methods approach to study the communication work conducted by the Scandinavian health authorities during the COVID-19 pandemic. More specifically, we investigated the communication strategies of the Danish Health Authority (DHA), the Norwegian Directorate of Health (NDH), the Norwegian Institute of Public Health (NIPH), the Swedish Civil Contingencies Agency (MSB), and the Public Health Agency of Sweden (PHAS).

4.1. Interviews

The qualitative interview component in Norway consisted of eight in-depth, semi-structured interviews, four in each organization, during the fall of 2020. In Denmark, we conducted five interviews: two with the DHA and, for contextual background, two with the Danish Patient Safety Authority and one with the Danish Medicines Agency. In Sweden, we conducted 10 interviews: four with the PHAS, the infection control authority, and six with the MSB, which coordinates national public communication efforts.

4.2. Field observations

Field notes were gathered through participant observation in the NIPH and the NDH communication departments during the spring and fall of 2020 (six days in the NIPH and four days in the NDH in March and April, followed by five additional days of observation at the NIPH in August). As part of access conditions, we signed a confidentiality agreement concerning classified and personal information.

4.3. Analysis of debate programs

We selected several national debate and interview television programs and analyzed how expert representatives from the aforementioned institutions appeared on the programs in the period from February 26, 2020 to May 1, 2021. In Denmark, we looked at *Debatten* and *Deadline* on the DR2 channel, which belongs to the national public broadcaster DR. *Debatten*, which airs once a week, is the most watched debate program in Denmark. *Deadline* is a news and debate program on the same channel and airs every weekday. In Norway, we examined the programs

Debatten and *Dagsnytt 18* from the national public broadcaster NRK. *Debatten* on NRK1 is the most watched debate program in Norway, airing every Tuesday and Thursday. *Dagsnytt 18* is a news and debate program that airs every weekday on the radio channel NRK P2 and on the television channel NRK2. In Sweden, we chose the debate programs *Agenda* and *Sverige möts* (“Sweden meets”), both on the public channel SVT1. *Agenda* airs every Sunday and is Sweden’s most watched debate and news program, while *Sverige möts* airs once a month.

4.4. Focus groups

We procured the services of a well-established survey company, Opinion, that operates in all Scandinavian countries. Opinion organized four online focus groups (chats) in each of the three countries. In every country, we targeted four distinct demographic groups: young people (aged 20–35) without children, families with children (aged 0–18), empty nesters, and senior citizens. Each group had 9–10 participants, totaling 113 participants. Each chat lasted approximately two hours and was led by a professional moderator from Opinion. A detailed interview guide was constructed, addressing topics such as experiences of the pandemic, views on public information, and measures to combat the pandemic. The interview guide is available on request.

In sum, we believe that this mixed-methods approach was particularly suited for studying different aspects of transparency. The analyses of the debate programs targeted accountability, as health authority representatives had the opportunity to publicly admit mistakes and demonstrate their tolerance of criticism. However, information substantiality and participation could be better studied using expert interviews and focus groups.

The data were analyzed using an abductive process whereby we started deductively with the transparency dimensions and then inductively refined these dimensions by building on our empirical material. More specifically, we read through transcripts of the interviews, debate programs, and focus groups, in addition to consulting the field notes, to identify instances when transparency was brought up. We sought to identify the different understandings, dimensions, and challenges of transparency. Given the exploratory nature of the study, we emphasized qualitative aspects of transparency rather than relying on quantification.

5. Analysis

In this section, based on the preceding literature review, we analyze the data using a three-dimensional transparency framework consisting of information substantiality, accountability, and participation. Then, we end with a discussion of the opportunities and challenges involved in transparency-based communication strategies.

5.1. Dimension 1: Information substantiality

In all three countries, we found clear examples of transparency being celebrated as a principle, primarily in relation to the release of information. The communication director of the NIPH stated the following *before* the pandemic: “We are working for the taxpayers’ money and are quite preoccupied with transparency” (Communication director, the NIPH, personal communication, January 17, 2020). Similarly, in the DHA, the person responsible for communication matters related to COVID-19 said that the main strategy was to “communicate a lot and publish a lot and be as transparent as possible” (Communication officer, the DHA, personal communication, November 26, 2020).

During the Swedish public press conferences and in interviews, the PHAS’s chief epidemiologist and the “face” of the Swedish pandemic response repeatedly emphasized transparency as

an important value. The same view was expressed in our interviews with the PHAS's personnel (Communication officer, PHAS, personal communication, July 2021). However, the interviews with the MSB revealed different perspectives. According to one MSB employee, transparency is important but should be approached and handled differently by different Swedish agencies (MSB employee, personal communication, October 2020). Swedish press conferences in which certain questions regarding hospital resources and future scenarios were left unanswered and information was withheld support this position. We will return to this aspect in the section on opportunities and challenges.

As mentioned in the literature review, disclosed information must be relevant, complete, accurate, reliable, and understandable (Bachmann, Gillespie, and Priem 2015). In our interview with the NDH's communication director, the director emphasized certain qualities of a frequently used spokesperson:

He comes across as being open, by saying that things are difficult, by providing simple answers that people understand, so that you are speaking on the same level as the citizens and they understand what you are saying, adapt and follow the advices that is given. This is crucial. (Communication director, the NDH, personal communication, October 8, 2020)

Similar comments were made in the Danish interviews regarding the media savviness of the DHA's director:

[The director] is a really good communicator. [...] So now we dare [to use him in the media]. And I can see the value of this, since he has achieved this position that, in the eye of many people, he is listened to. (Communication officer, the DHA, personal communication, November 26, 2020)

However, as the Swedish death toll climbed throughout the pandemic, the PHAS's chief epidemiologist, who defended the country's policy, became a controversial figure. Still, at the time of the focus group research (May 2020), Swedish focus group participants expressed strong trust in this particular representative: "he comes across as credible, and he is pedagogical" (Axel).

When the focus group participants were asked how they felt about experts expressing uncertainty, the participants in all three countries used phrases like "that is honest" and "I respect that." A Norwegian participant pointed out that the pandemic was special: "There is every reason to be uncertain when something occurs where we do not have any empirical basis that can inform knowledge-based decisions. It is necessary that we feel our way" (TerjeE). A Danish participant followed this argument through to its communicative consequences: "This is also the reason that the messages change. It would be a pity if they just stuck to what they had said, just to appear credible" (Kaya).

5.2. Dimension 2: Accountability

The second transparency dimension mentioned in the literature review was accountability: organizations must present counter arguments/perspectives, tolerate criticism, and own up to mistakes (Bachmann, Gillespie, and Priem 2015; Balkin 1999; Cotterrell 1999; Auger 2014). This transparency dimension was particularly visible when health authority representatives appeared on news programs and televised debates. All Scandinavian health representatives demonstrated a willingness to present and defend their views. Nonetheless, we discovered an interesting national difference. The Norwegian representatives frequently appeared in debate programs throughout the pandemic, while the Danish and Swedish representatives, for the most part, were interviewed. Despite this difference, the communication strategies were similar as the representatives admitted the following: (1) a high degree of uncertainty and a lack of knowledge, (2) problems and public skepticism, and (3) disagreements among responsible institutions (Kjeldsen, Mølster, and Ihlen 2022).

In a Danish debate program, a journalist referred to a survey indicating that one in six Danes would probably not accept a COVID-19 vaccine. A representative from the Danish Medicines Agency answered as follows:

Well, I can understand the skepticism, and it is important that skepticism isn't strange per definition. [...] There are lots of skeptical people around. Science is skepticism and uncertainty. This is a crazy situation, it is a world where everyone is affected, and information is flying around. My job is to present all the information we have and obtain altogether, have an open dialogue, and we are quite confident that you can make an informed, I mean your own decision on an informed basis. So, I am not worried about the uncertainty. And we will present all the information in a transparent manner. (Representative, the Danish Medicines Agency, *Deadline*, November 28, 2020)

The representative openly acknowledged the existence of public skepticism as well as the challenges concerning uncertainty and the lack of knowledge faced by public health authorities and explicitly promised to maintain transparency.

We also found examples of representatives admitting disagreements among institutions. On May 7, 2020, after a strategy of partially reopening Norwegian society had been presented, *Debatten* gathered together the prime minister, the leader of the opposition, the director general of the NIPH, the director general of the NDH, and several other actors. The NIPH's director general was confronted with the fact that the government had chosen not to reopen schools despite the NIPH's advice. The director general responded as follows:

We have not advised the closing down of schools and kindergartens, however [...] this is an area with great uncertainty, and the scientific basis is weak. [...] I think it is both necessary and fully legitimate that the politicians make the decisions on these issues. This does not mean that we necessarily agree in everything. However, in many cases, most cases, we completely understand when other judgments are made. (Director general, the NIPH, *Debatten*, May 7, 2020)

During the focus groups, participants remarked that they appreciated the accountability of the public health authorities, especially concerning uncertainty and the admission of mistakes. One of the Danes stated the following: "The trust has not changed. It is good that the authorities have talked about their own misjudgments and uncertainty" (Elise). This sentiment was echoed by a Swedish participant: "We have quite open information in Sweden, [it] feels credible. They even admit flaws and mistakes" (Bjarne).

5.3. Dimension 3: Public participation

The third transparency dimension mentioned in the literature review involved public participation. More specifically, scholars have argued that audiences play an active role in the creation of transparency (Albu and Wehmeier 2014). In Norway, the NDH ran a weekly survey since late February 2020; in addition, they organized surveys and focus groups related to information campaigns about the pandemic to adjust their messaging if needed. Furthermore, the public health authorities in all three countries invested in social media and had dedicated personnel tasked with responding to inquiries and questions in various channels. When asked about the communication goals for the social media work, one informant in the NIPH's social media team described the goals as being largely the same as for the organization while pointing out dialogue as a central ambition (Communication officer, the NIPH, personal communication, October 2020). When asked about the functions and goals of their social media efforts, in particular on Facebook, the person responsible for social media at the DHA also emphasized the importance of interacting with the public and answering questions:

Our goal right now is to answer all the questions that we receive. We don't quite make it. I think we answer 90%, and by that, I mean that if we receive 14,000 comments a month, currently there is a benefit in that on social media, you can answer several of them at the same time. Because someone might have a question and then someone comments under that question. So, in that sense, we can say that we

manage to answer 90% or sometimes 95% of them [the questions]. (Communication officer, the DHA, personal communication, February 5, 2021)

This respondent went on to comment on the differences between social media and other forms of communication:

It can be a lot more involved. [...] It might be that we set the premise for a conversation, but then it might go in any possible direction, and that is significantly different than when we send out press releases and so on. In these cases [on social media], we are hosting the conversation, it is taking place on our platform, and we must participate, that is kind of the premise of it. (Communication officer, the DHA, personal communication, February 5, 2021)

One of the employees at the PHAS also stated that the agency stepped up its engagement after a Swedish MP questioned the number of negative comments on their Facebook page: "Let us say we had 3,000 questions that we had [not answered]. But [the new personnel] worked weekends and days and went through all of them and answered all" (Communication officer, the PHAS, personal communication, July 2021). Thus, the Scandinavian health authorities were committed to interacting with the public, meeting a central criterion proposed in the literature (Lee and Li 2021).

5.4. Opportunities and challenges

To practice transparency, internal organizational support is crucial (Fairbanks, Plowman, and Rawlins 2007). Lack of such support, however, can create challenges in large organizations, such as public health authorities.

Everybody at the institute needs to understand communication and what it means to be open about knowledge and how it should be shared. How fast it should be shared, how fast we should answer requests for access and answer the media. You have to spend time on communication also as a professional. And obviously, with over 1,000 employees, there will be different understandings and different interests. (Communication director, the NIPH, personal communication, January 17, 2020)

While the above quotation points to internal challenges, there are also external or systemic challenges facing public organizations. In an interview in Denmark, the need to coordinate with politicians was mentioned:

The coordination of messages from the government concerning matters that also are political. I do not say that, and I emphasize this, this does not imply that the matter of politics does not contribute to an educated debate, but just the fact that, as a communicator in the Danish Health Authority, you are part of the democracy, because it is the politicians who we have voted for that decide. (Communication officer, the DHA, personal communication, November 26, 2020)

The relationship between the bureaucracy and the politicians was something that came up in other interviews, during the fieldwork, and in background talks. In the NIPH, the majority of the employees are researchers, and transparency can help them preserve professional integrity, as the results of their work are available independently of policy decisions. This *strategic* value of transparency was particularly evident when the government did not follow the recommendations of the NIPH (Offerdal, Just, and Ihlen 2021). The ideal of professional independence was described as closely tied to the professional identity of the NIPH and its employees and as something that contributed to maintaining public trust in the institution. At the same time, transparency in the face of professional disagreements between the actors involved in the public health response to COVID-19 was not seen as unproblematic and involved negotiations and power struggles between the various actors. The idea of a unified position and a clear set of unanimous recommendations was weighted against transparency and openness as strategic values.

The relationship between the various agencies involved in the pandemic response was part of a separate perceived challenge to organizational transparency—namely, the contested terrain of timing—of which we became aware during observations. The decision-making structure in the Norwegian case involved the Ministry of Health (MOH) requesting written reports from the public health institutions with their input regarding options and decisions. While the responses to these requests were generally made public, the timing of their release proved to be a matter of dispute between journalists and the organizations. When the MOH wanted to independently announce their decisions in a coordinated manner via press conferences, written reports from the public health institutions were generally considered to be background material not subject to publication prior to the MOH's announcement but to be published afterwards in the full, at times to the ire and frustration of journalists. Therefore, timing was its own challenge, and even full disclosure could be considered insufficient by stakeholders if they disagreed with organizations' decisions about when information should be released.

Another specific challenge, which was discussed in the NDH, concerned perceived transparency in relation to two versions of a chatbot: one directed toward the public and the other toward medical professionals. The employees worried about potential negative side effects if members of the public felt that there were two tiers of information, one for health professionals and another for the rest of the population. While this is a minor example, it points to a core transparency challenge in relation to handling highly technical information during a pandemic. Organizations need to communicate at several levels of technical competence simultaneously, without the information presented coming across as contradictory.

The complexity of the hybrid media landscape posed further challenges. For instance, a PHAS communication officer said that the agency did not remove all negative posts on social media because such posts would cause users to debate one another. This strategy of letting users outside the organization “do the dirty work” has been noted in other studies as well (Offerdal, Just, and Ihlen 2021) and can be considered an important consequence of the affordances of social media. This phenomenon was also present in traditional media—for instance, when 35 infection control representatives from all of Norway signed an op-ed piece against three critics from the medical ranks: “Our relationship to the [NIPH] is very good [and we have] full confidence in their competence and judgments” (Akselsen et al. 2020, September 1).

A particular concern in the early phase of the pandemic was related to the risk that transparency might lead to unwarranted fear and worry among the public. Commenting on the phase when no Swedish cases had been registered, an interviewee from the MSB called the period a watershed moment, stating that the PHAS was reluctant to communicate about COVID-19 and the uncertainty of the situation (MSB employee, personal communication, October 2020).

In a press meeting on March 11, 2020, a journalist asked why the PHAS could not follow the same policy as authorities in other countries and release scenario figures estimating how many people could be hospitalized or would need intensive care. The chief epidemiologist answered as follows:

As always, we are very transparent in the way we work, and we will continue to be so, but the ones that need those figures and will work with them are the health workers because they are the ones that must react based on them. (Public Health Agency of Sweden 2020, March 11)

The debate in the two other countries also revolved around the risk of creating worry by releasing worst-case scenarios and similar projections. In Norway, the NIPH was criticized in this regard (e.g., Hagesaether 2020, March 6). Nonetheless, it seems that the long-term perspective of factoring in the need for trust prevailed. As the NIPHS communication director remarked:

You need to show your cards and be transparent about assessments and scenarios, but this also leads to worry in the population. You [still] need to be transparent, if not, you are violating principles, risk

communication principles, and it can hurt trust. (Communication director, the NIPH, personal communication, June 3, 2021)

In line with this perspective, the MSB produced a research-based review that made a similar point. An MSB employee presented it the following way:

Absence of information is [...] problematic, creates much more worry than information which [might] lead to concern, but it is a manageable concern because you are transparent, open, and honest. So, I would say that this is what has been at stake, and I was probably a little surprised by the extent to which the “classic ways” prevailed. (MSB employee, personal communication, October 2020)

The expression “classic ways” implies the practice of confidentiality and reveals a difference between Sweden and the two other Scandinavian countries. The Swedish government seemed to avoid the communication of uncertainty because this “could raise fear” and “lower trust in society” (Hanson et al. 2021, 7-9). This strategy has been described as overconfident (Lindstrom 2020). The practice of not communicating uncertainty could be said to run against the normative definitions of transparency, which reveals, for instance, the importance of enhancing “the reasoning ability of publics and holding organizations accountable for their actions, policies, and practices” (Rawlins 2008, 75).

6. Conclusion

In this article, we have drawn on a rich data set that shows how public health authorities in Scandinavian countries have handled and navigated transparency throughout the COVID-19 pandemic. We have surveyed literature emphasizing that transparency is not the same as disclosure (Albu and Wehmeier 2014; Rawlins 2008; Christensen and Langer 2009; Cotterrell 1999; Lee and Boynton 2017). Consequently, we adopted a three-dimensional transparency framework composed of information substantiality, accountability, and participation (Balkin 1999; Lee and Li 2021; Cotterrell 1999; Auger 2014).

Some of the data indicate that the Swedish public health authorities, at least the PHAS, did not practice transparency to the same extent as their Danish and Norwegian counterparts—for instance, regarding information substantiality and accountability. In Denmark, too, stricter political control created challenges for authorities’ transparency practices. The public report on Danish handling of the COVID-19 pandemic highlighted some problems in this regard (Folketinget 2021). In Norway, however, the public evaluation report mentioned transparency as a success factor (NOU. 2021), and the NIPH also received transparency prizes from, for instance, the Norwegian Press Association (Foss 2020, September 24). Also, looking at the televised debates, there is little doubt that Norway stands out in terms of transparency among the three Scandinavian countries, given that public health representatives actively participated in such programs.

At the same time, transparency is very much a matter of perception. As mentioned in the literature review, transparency can mean different things to different stakeholders (Matheus and Janssen 2019). The focus group data contained several examples of content citizens from all three countries who all felt transparency had been upheld to a great degree by their respective public health authorities. The trust surveys similarly showed that while trust was much lower in Sweden than in the neighboring countries, it was still high compared to other countries (see e.g., Warren, Lofstedt, and Wardman 2021).

Confirming a central finding in the literature (Gustafson and Rice 2020; van der Bles et al. 2020; Brashers 2001; Liu, Bartz, and Duke 2016), the focus groups revealed a general acceptance of and appreciation for how public health authorities confessed to being uncertain. Therefore, we believe that our findings underline the importance of transparency, even when transparency entails risks. The expert interviews indicated that the authorities wanted to be transparent,

the television debates showed that this ideal was practiced, and the focus groups revealed that at least some people appreciated the effort.

Future research should explore the practice of transparency instances more fully by focusing on the described dilemmas and how practitioners and the public negotiate them. Researchers could also further examine the transparency dimensions and their relative importance. As argued earlier, the numbers of deceased and hospitalized persons can have a strong influence on trust levels. Moreover, we have not solved the methodological challenge of distinguishing between the effect on trust produced by observed pandemic impacts and the effect that risk communication strategies may have. This is a limitation of our approach and remains an open question for future research. Still, we maintain that transparency and communication are significant factors that can strengthen or weaken the public's impressions of the competence, integrity, and benevolence of public health authorities.

Note

1. Some prefer to label this "openness" ("a process of active listening and communication that can help to bring new problems or potential difficulties to light") and see it as a separate phenomenon (Wardman 2020, 1106).

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by the Research Council of Norway (grant no. 296347).

ORCID

Øyvind Ihlen  <http://orcid.org/0000-0002-5001-3796>
 Sine Nørholm Just  <http://orcid.org/0000-0002-4179-2708>
 Truls Strand Offerdal  <http://orcid.org/0000-0001-6631-1918>
 Joel Rasmussen  <http://orcid.org/0000-0001-6407-6037>
 Eli Skogerbø  <http://orcid.org/0000-0001-6803-5021>

References

- Akselsen, Per Espen, Anne Mette Asfeldt, Carl-Fredrik Borchgrevink-Lund, Bjørn Brandsaeter, and Anita Wang Børseth. 2020. "Smittevernansvarlige i norske helseforetak gir full støtte til Folkehelseinstituttet" [Representatives with Responsibilities for Infection Control in Norwegian Health Organizations Give Full Support to the National Institute for Public Health]. *Aftenposten*, September 1.
- Albu, Oana Brindusa., and Mikkel Flyverbom. 2019. "Organizational Transparency: Conceptualizations, Conditions, and Consequences." *Business & Society* 58 (2): 268–297. doi:10.1177/0007650316659851.
- Albu, Oana Brindusa, and Stefan Wehmeier. 2014. "Organizational Transparency and Sense-Making: The Case of Northern Rock." *Journal of Public Relations Research* 26 (2): 117–133. doi:10.1080/1062726X.2013.795869.
- Auger, Giselle A. 2014. "Trust Me, Trust Me Not: An Experimental Analysis of the Effect of Transparency on Organizations." *Journal of Public Relations Research* 26 (4): 325–343. doi:10.1080/1062726X.2014.908722.
- Bachmann, Reinhard, Nicole Gillespie, and Richard Priem. 2015. "Repairing Trust in Organizations and Institutions: Toward a Conceptual Framework." *Organization Studies* 36 (9): 1123–1142. doi:10.1177/0170840615599334.
- Balkin, J. M. 1999. "How Mass Media Simulate Political Transparency." *Cultural Values* 3 (4): 393–413. doi:10.1080/14797589909367175.
- Balog-Way, Dominic H. P., and Katherine A. McComas. 2020. "COVID-19: Reflections on Trust, Tradeoffs, and Preparedness." *Journal of Risk Research* 23 (7–8): 838–811. doi:10.1080/13669877.2020.1758192.

- Brushers, Dale E. 2001. "Communication and Uncertainty Management." *Journal of Communication* 51 (3): 477–497. doi:10.1111/j.1460-2466.2001.tb02892.x.
- Christensen, Lars Thøger, and George Cheney. 2015. "Peering into Transparency: Challenging Ideals, Proxies, and Organizational Practices." *Communication Theory* 25 (1): 70–90. doi:10.1111/comt.12052.
- Christensen, Lars Thøger, and Roy Langer. 2009. "Public Relations and the Strategic Use of Transparency: Consistency, Hypocrisy, and Corporate Change." In *Rhetorical and Critical Approaches to Public Relations II*, edited by Robert L. Heath, Elizabeth L. Toth, and Damion Waymer, 129–153. New York: Routledge.
- Clementson, David E., and Tong Xie. 2021. "On the Merits of Transparency in Crisis: Effects of Answering vs. Evading through the Lens of Deception Theory." *International Journal of Strategic Communication* 15 (1): 1–17. doi:10.1080/1553118X.2020.1836644.
- Collins, Aengus, Marie-Valentine Florin, and Ortwin Renn. 2020. "COVID-19 Risk Governance: Drivers, Responses and Lessons to Be Learned." *Journal of Risk Research* 23 (7–8): 1073–1082. doi:10.1080/13669877.2020.1760332.
- Cotterrell, Roger. 1999. "Transparency, Mass Media, Ideology and Community." *Cultural Values* 3 (4): 414–426. doi:10.1080/14797589909367176.
- Directorate of Health. 2021. "Befolkningsundersøkelse Covid-19" [Population Survey Covid-19]. Accessed September 19. <https://www.helsedirektoratet.no/tema/beredskap-og-krisehandtering/koronavirus/befolkningsundersokelse-covid-19>.
- Dixon, Graham, Katherine McComas, John Besley, and Joseph Steinhardt. 2016. "Transparency in the Food Aisle: The Influence of Procedural Justice on Views about Labeling GM Foods." *Journal of Risk Research* 19 (9): 1158–1171. doi:10.1080/13669877.2015.1118149.
- Driedger, S. Michelle, Ryan Maier, and Cindy Jardine. 2021. "Damned If You Do, and Damned If You Don't: Communicating about Uncertainty and Evolving Science during the H1N1 Influenza Pandemic." *Journal of Risk Research* 24 (5): 574–519. doi:10.1080/13669877.2018.1459793.
- Enria, L., N. Waterlow, N. T. Rogers, H. Brindle, S. Lal, R. M. Eggo, S. Lees, and C. H. Roberts. 2021. "Trust and Transparency in Times of Crisis: Results from an Online Survey during the First Wave (April 2020) of the COVID-19 Epidemic in the UK." *PloS One* 16 (2): e0239247. doi:10.1371/journal.pone.0239247.
- Esaiasson, Peter, Jacob Sohlberg, Marina Ghersetti, and Bengt Johansson. 2021. "How the Coronavirus Crisis Affects Citizen Trust in Institutions and in Unknown Others: Evidence from 'the Swedish Experiment.'" *European Journal of Political Research* 60 (3): 748–760. doi:10.1111/1475-6765.12419.
- European Centre for Disease Prevention and Control. 2022. "COVID-19 Situation Update for the EU/EEA." <https://www.ecdc.europa.eu/en/cases-2019-ncov-eueea>.
- European Social Survey Round 9 Data. 2018. "Data File Edition 2.0. NSD - Norwegian for Research Data, Norway – Data Archive and Distributor of ESS data for ESS." doi:10.21338/NSD-ESS9-2018.
- Fairbanks, Jenille, Kenneth D. Plowman, and Brad L. Rawlins. 2007. "Transparency in Government Communication." *Journal of Public Affairs* 7 (1): 23–37. doi:10.1002/pa.245.
- Fisher, Jolene, and Toby Hopp. 2020. "Does the Framing of Transparency Impact Trust? Differences between Self-Benefit and Other-Benefit Message Frames." *International Journal of Strategic Communication* 14 (3): 203–222. doi:10.1080/1553118X.2020.1770767.
- Flyverbom, Mikkel. 2016. "Digital Age| Transparency: Mediation and the Management of Visibilities." *International Journal of Communication* 10: 13.
- Folketinget. 2021. *Håndteringen af covid-19 i foråret 2020 [The Handling of COVID-19 in the Spring of 2020]*. Copenhagen, Denmark: Folketinget.
- Foss, Kristine. 2020. "Flaviusprisen til Camilla Stoltenberg [The Flavius Prize Handed to Camilla Stoltenberg]." *Norsk Presseforbund*, Accessed September 30. <https://presse.no/np-nyhet/flaviusprisen-til-camilla-stoltenberg/>.
- Gustafson, Abel, and Ronald E. Rice. 2020. "A Review of the Effects of Uncertainty in Public Science Communication." *Public Understanding of Science (Bristol, England)* 29 (6): 614–633. doi:10.1177/0963662520942122.
- Hagesaether, Pål Vegard. 2020. "Professor og virusekspert: – Utviklingen i Norge den siste uken har vært omtrent som vi kunne anta [Professor and Virus Expert: The Development in Norway the Last Week Has Been More or Less as We Could Expect]." *Aftenposten*, March 6.
- Han, Paul K. J., Elizabeth Scharnetzki, Aaron M. Scherer, Alistair Thorpe, Christine Lary, Leo B. Waterston, Angela Fagerlin, and Nathan F. Dieckmann. 2021. "Communicating Scientific Uncertainty about the COVID-19 Pandemic: Online Experimental Study of an Uncertainty-Normalizing Strategy." *Journal of Medical Internet Research* 23 (4): e27832. doi:10.2196/27832.
- Hanson, Claudia, Susanne Luedtke, Neil Spicer, Jens Stihoff Sørensen, Susannah Mayhew, and Sandra Mounier-Jack. 2021. "National Health Governance, Science and the Media: Drivers of COVID-19 Responses in Germany, Sweden and the UK in 2020." *BMJ Global Health* 6 (12): e006691. doi:10.1136/bmjgh-2021-006691.
- Heald, David. 2006. "Transparency as an Instrumental Value." In *Transparency: The Key to Better Governance?*, edited by C. Hood and David Heald, 59–74. Oxford, UK: Oxford University Press.
- Holland, Derrick, Trent Seltzer, and Anna Kochigina. 2021. "Practicing Transparency in a Crisis: Examining the Combined Effects of Crisis Type, Response, and Message Transparency on Organizational Perceptions." *Public Relations Review* 47 (2): 102017. doi:10.1016/j.pubrev.2021.102017.

- Hood, Christopher. 2007. "What Happens When Transparency Meets Blame-Avoidance?" *Public Management Review* 9 (2): 191–210. doi:10.1080/14719030701340275.
- Kjeldsen, Jens E., Ragnhild Mølster, and Øyvind Ihlen. 2022. "Expert Uncertainty: Arguments Bolstering the Ethos of Expertise in Situations of Uncertainty." In *The Pandemic of Argumentation*, edited by S. Oswald, M. Lewinski, S. Greco, and S. Villata, 81–99. Berlin: Springer.
- Koffman, J., J. Gross, S. N. Etkind, and L. Selman. 2020. "Uncertainty and COVID-19: How Are we to Respond?" *Journal of the Royal Society of Medicine* 113 (6): 211–216. doi:10.1177/0141076820930665.
- Lee, Tae Ho, and Lois A. Boynton. 2017. "Conceptualizing Transparency: Propositions for the Integration of Situational Factors and Stakeholders' Perspectives." *Public Relations Inquiry* 6 (3): 233–251. doi:10.1177/2046147X17694937.
- Lee, Yeunjae, and Jo-Yun Queenie. Li. 2021. "The Role of Communication Transparency and Organizational Trust in Publics' Perceptions, Attitudes and Social Distancing Behaviour: A Case Study of the COVID-19 Outbreak." *Journal of Contingencies and Crisis Management* 29 (4): 368–384. doi:10.1111/1468-5973.12354.
- Lindstrom, M. 2020. "The COVID-19 Pandemic and the Swedish Strategy: Epidemiology and Postmodernism." *SSM Popul Health* 11: 100643. doi:10.1016/j.ssmph.2020.100643.
- Liu, Brooke Fisher, Logen Bartz, and Noreen Duke. 2016. "Communicating Crisis Uncertainty: A Review of the Knowledge Gaps." *Public Relations Review* 42 (3): 479–487. doi:10.1016/j.pubrev.2016.03.003.
- Löfstedt, Ragnar. 2013. "Transparency at the EMA: More Evidence is Needed." *Therapeutic Innovation & Regulatory Science* 47 (3): 299–300. doi:10.1177/2168479012469946.
- Löfstedt, Ragnar, and Jamie K. Wardman. 2016. "State of the Art Transparency: Lessons from Europe and North America." *Journal of Risk Research* 19 (9): 1079–1081. doi:10.1080/13669877.2016.1249713.
- Löfstedt, Ragnar, and Dominic Way. 2016. "Transparency and Trust in the European Pharmaceutical Sector: Outcomes from an Experimental Study." *Journal of Risk Research* 19 (9): 1082–1103. doi:10.1080/13669877.2014.919517.
- Löfstedt, Ragnar, Dominic Way, Frederic Boudier, and Darrick Evensen. 2016. "Transparency of Medicines Data and Safety Issues—a European/US Study of Doctors' Opinions: What Does the Evidence Show?" *Journal of Risk Research* 19 (9): 1172–1184. doi:10.1080/13669877.2015.1121911.
- Matheus, Ricardo, and Marijn Janssen. 2019. "A Systematic Literature Study to Unravel Transparency Enabled by Open Government Data: The Window Theory." *Public Performance & Management Review* 43 (3): 1–34. doi:10.1080/15309576.2019.1691025.
- Moon, M. J. 2020. "Fighting COVID-19 with Agility, Transparency, and Participation: Wicked Policy Problems and New Governance Challenges." *Public Administration Review* 80 (4): 651–656. doi:10.1111/puar.13214.
- NOU. 2021. *NOU 2021:6 Myndighetenes håndtering av koronapandemien* [NOU 2021:6 The Authorities' Handling of the COVID-19 Pandemic]. Oslo, Norway.
- Offerdal, Truls Strand, Just, Sine Nørholm, and Ihlen, Øyvind. 2021. "Public ethos in the pandemic rhetorical situation: Strategies for building trust in authorities' risk communication." *Journal of International Crisis and Risk Communication Research* 4 (2): 247–270. doi:10.30658/jicrcr.4.2.3.
- Öhman, Daniel, and Emelie Rosén. 2020. "Minskad insyn hos Folkhälsomyndigheten [Less Transparency in the the Public Health Agency of Sweden]." *Sveriges Radio*, June 1.
- Petersen, Michael Bang, Alexander Bor, Frederik Jørgensen, and Marie Fly Lindholt. 2021. "Transparent Communication about Negative Features of COVID-19 Vaccines Decreases Acceptance But Increases Trust." *Proceedings of the National Academy of Sciences* 118 (29): e2024597118. doi:10.1073/pnas.2024597118.
- Petersen, Michael Bang, and Andreas Roepstorff. 2021. *Danskernes adfærd og holdninger til corona-epidemien [The Behaviour and Attitudes of the Danes towards the Corona Epidemic]*. Aarhus, Denmark: University of Aarhus.
- Public Health Agency of Sweden. 2020. "Pressträff om covid-19 (coronavirus) 11 mars 2020 [Press Meeting about COVID-19 (Coronavirus) March 11, 2020] [Video]." *YouTube*, March 11.
- Rawlins, Brad. 2008. "Give the Emperor a Mirror: Toward Developing a Stakeholder Measurement of Organizational Transparency." *Journal of Public Relations Research* 21 (1): 71–99. doi:10.1080/10627260802153421.
- Stohl, Cynthia, Michael Stohl, and Paul M. Leonardi. 2016. "Digital Age| Managing Opacity: Information Visibility and the Paradox of Transparency in the Digital Age." *International Journal of Communication* 10: 15.
- van der Bles, A. M., S. van der Linden, A. L. J. Freeman, and D. J. Spiegelhalter. 2020. "The Effects of Communicating Uncertainty on Public Trust in Facts and Numbers." *Proceedings of the National Academy of Sciences of the United States of America* 117 (14): 7672–7683. doi:10.1073/pnas.1913678117.
- Wardman, Jamie K. 2020. "Recalibrating Pandemic Risk Leadership: Thirteen Crisis Ready Strategies for COVID-19." *Journal of Risk Research* 23 (7–8): 1092–1120. doi:10.1080/13669877.2020.1842989.
- Wardman, Jamie K., and Ragnar Lofstedt. 2020. "COVID-19: Confronting a New World Risk." *Journal of Risk Research* 23 (7–8): 833–837. doi:10.1080/13669877.2020.1842988.
- Warren, George W., Ragnar Lofstedt, and Jamie K. Wardman. 2021. "COVID-19: The Winter Lockdown Strategy in Five European Nations." *Journal of Risk Research* 24 (3–4): 267–293. doi:10.1080/13669877.2021.1891802.
- Way, Dominic, Frederic Boudier, Ragnar Löfstedt, and Darrick Evensen. 2016. "Medicines Transparency at the European Medicines Agency (EMA) in the New Information Age: The Perspectives of Patients." *Journal of Risk Research* 19 (9): 1185–1215. doi:10.1080/13669877.2016.1200652.