

Negotiated compliance at the street level

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DOI:

[10.1111/padm.12557](https://doi.org/10.1111/padm.12557)

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Document Version

Peer reviewed version

Citation for published version (Harvard):

Gofen, A, Blomqvist, P, Needham, C, Warren, K & Winblad, U 2019, 'Negotiated compliance at the street level: Personalizing immunization in England, Israel and Sweden', *Public Administration*, vol. 97, no. 1, pp. 195-209. <https://doi.org/10.1111/padm.12557>

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This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/padm.12557

Often portrayed as behaviour that is inconsistent with policy goals, public noncompliance poses a significant challenge for government. To explore what compliance efforts entail on-the-ground, this study focuses on childhood immunization as a paradigmatic case where a failure to ensure compliance poses a public health risk. Analysis draws on 48 semi-structured interviews with frontline nurses and regional/national public-health officials in England (N=15), Sweden (N=17) and Israel (N=16), all of which have experienced periodic noncompliance spikes, but differ in direct-delivery of vaccination provision. Compliance efforts emerged as a joint decision-making process in which improvisatory practices of personalised appeals are deployed to accommodate parents' concerns, termed here '*street-level negotiation*.' Whereas compliance is suggestive of compelling citizens' adherence to standardised rules, compliance negotiation draws attention to the limited resources street-level workers have when encountering noncompliance and to policy-clients' influence on delivery arrangements when holding discretionary power over whether or not to comply.

Keywords: Compliance, negotiation, street-level bureaucracy, personalization, immunization.

INTRODUCTION

Often portrayed as behaviours consistent with policy aims, public compliance with policy is essential to the success of implementation (Bardach and Kagan 1982; May 2004; Weaver 2014, 2015; Weimer 2006). Noncompliance with policy is conventionally considered a ‘negative’ reaction by policy-targets, which follows the introduction of a policy, and is therefore mainly considered as an implementation problem that should be corrected by the administration (Baggott 1986; May 2004; Weimer 2006). In accordance, the current literature tends to employ a ‘top-down’ perspective on the formal instruments implemented by the government in response to noncompliance (Gofen 2015). Moreover, in the context of citizens-targets, the current literature often refers to well-documented compliance barriers and motivations to recommend what government should or could do to address noncompliance (see Weaver 2015 for a systematic review), while relinquishing questions about what actual compliance efforts look like and what they entail on-the-ground (Gofen and Needham 2015).

Street-level bureaucrats (SLBs), who exercise the direct-delivery of public services with policy-clients are the first governmental tier to encounter public noncompliance. Playing a key role in structuring citizens-government relationships (Brodkin 2011), the implementation actions of SLBs have been well-documented, mainly the ways they exercise their discretion, what influences their street-level actions and the coping mechanisms that are utilized to overcome their stressful work experience (Brodkin 2011; Lipsky 1980; Maynard-Moody and Musheno 2003; Tummers et al. 2015). Securing public compliance by SLBs is captured in the notion of being a ‘state-agent,’ which refers to them as seeking to secure the goals of government, as opposed to being a ‘citizen-agent,’ which might involve bending or breaking the rules in order to meet citizen preferences and needs (Maynard-

Moody and Musheno 2003). SLBs mostly see themselves as governed by occupational or professional norms (Hupe and Hill 2007; Lipsky 1980), therefore, bending or breaking the rules often reflect a professional imperative that draws on professional knowledge and follows a professional decision (Maynard-Moody and Musheno 2003). Street-level studies tend to focus on the compliance of SLBs and often overlook the ways through which SLBs exercise their discretion in response to noncompliance among their policy-clients (Gofen and Needham 2015).

Toddlers' non-vaccination is a form of noncompliance which challenges frontline nursing staff who are required to take a state-agent perspective in order to secure public health. Specifically, immunization is a hierarchical steering practice, which requires compliance from those whose behaviours are targeted (Ayres and Braithwaite 1992; Bardach and Kagan 1982; Weaver 2014; Weimer 2006), not just for parents to protect their own child, but also to preserve the immunity of the 'herd' (Fox et al. 2011). Non-vaccination has been subject to periodic spikes in many western democracies (Diekema 2009; Kroneman et al. 2006; Samad et al. 2006; Stefanoff et al. 2010; Tickner et al. 2010; Weisblay 2008), so that '[t]he anti-vaccination movement has recently come into the mainstream' (Rodal and Wilson 2010, 43). Whereas the spikes of non-vaccination and the effect of top-down governmental interventions to reduce noncompliance with vaccinations have been well-documented (Dubé et al. 2015a), compliance efforts on-the-ground have been rather overlooked, and indeed only a '[f]ew interventions were directly targeted to vaccine hesitant individuals' (4191).

To allow a better understanding of street-level compliance efforts, this study takes a 'backwards mapping' approach (Elmore 1979) by exploring how frontline immunization nurses encounter and respond to parents' hesitance with childhood immunization, and how they exercise their discretion in order to minimize noncompliance. Unlike many other

street-level implementation settings, in which direct-delivery activities are difficult to supervise, immunization activities are rigorously documented and registered. Hence, to provide a comprehensive exploration, analysis draws also on additional parts of the compliance regime (Weaver 2014) – the public health officials at regional and national level– which provide insight into the extent to which management influences and supports street-level compliance efforts. Analysis compares Sweden, England and Israel because all three have experienced periodic spikes in noncompliance but differ in the direct-delivery arrangements of vaccination provision (see Table1). Comparative analysis was employed in an attempt to increase the explanatory power of the findings through a ‘least similar’ case selection logic (Yin 2009) and to contribute to the understudied comparative research in street-level scholarship (Hupe and Buffat 2014; Maynard-Moody and Musheno 2012).

Despite different arrangements of vaccination provision, in all three countries parental hesitance with vaccination was portrayed by interviewees as legitimate and was followed by improvisatory practices of personalised appeals by frontline nurses to steer parents away from noncompliance. Termed here *street-level negotiation*, efforts to secure compliance during direct-delivery interactions emerged as a joint decision-making process in which nurses discuss with parents ‘at eye level’ the necessity and safety of vaccination as well as non-vaccination consequences. Moreover, possibilities are weighed and delivery arrangements are negotiated. In all three countries, the outcome of street-level negotiation is personalized vaccination provision (i.e., delaying the shots), which diverges from the rather strict delivery protocol. Although the sample in each country is small, the comparative setting of the study also allowed identification of differences between the three countries, which reflect the formal and informal institutionalization of street-level negotiation, that is, the institutional options available to nurses in their compliance efforts.

The article begins by reviewing the literature on public noncompliance, highlighting street-level compliance efforts as a neglected aspect of existing scholarship. The article goes on to discuss childhood immunization in the context of noncompliance, and to set out the research design and methodology. The findings section presents the concept of street-level negotiation, including its phases and institutionalization, followed by concluding remarks which summarize the contribution of street-level negotiation both to theory and practice.

GOVERNMENTAL RESPONSE TO PUBLIC (NON)COMPLIANCE

Enabling or forcing policy-targets to do things ‘they otherwise would not have done’ (Schneider and Ingram 1990, 513) lies at the core of public policy. Accordingly, policy compliance refers to targets’ behaviours which are in line with a policy’s aims, and policy noncompliance refers to behaviours incompatible with a policy’s objectives (Weaver 2014, 2015). Since policy will have impact only if targets comply, considerable scholarly attention has been devoted to mechanisms of enforcement, which mostly involve incentives and information (May 2004; Weaver 2014, 2015; Weimer 1993). The level of governmental enforcement varies (Raymond 2002): government may ignore noncompliance if it is considered acceptable and does not involve risk to the public (e.g., Edwards 2006), government may also react by over-enforcement (e.g., Bierschbach and Stein 2005), or by under-enforcement (Natapoff 2006). Referred to as ‘compliance regime’ (Weaver 2014), governmental efforts to secure compliance differ in terms of their intrusiveness (Schneider and Ingram 1990). Following accumulating evidence that emphasize deterrence’s limitations, in recent years, a greater significance has been given to responsiveness, flexibility, and creativity as key components in enforcement, which is expected to increase compliance by encouraging policy-targets’ collaboration and cooperation (Ayres and Braithwaite 1992; Bardach and Kagan 1982; Weaver 2014). For example, the model of

‘negotiated compliance,’ which is mostly implemented in the context of regulatory compliance, structurally allows the regulated to bargain their compliance with the regulatory personnel. The regulatory staff have discretionary power to interpret general and flexible rules and are expected to achieve desirable substantive outcomes rather than strictly enforce directives (Bardach and Kagan 1982; Shover, Clelland and Lynxwiler 1986). Voluntary programs take this approach a step further by moving beyond compliance norms and promoting voluntary participation by policy-targets (Tyler 2006).

Notably, targets of policy compliance may be countries, organizations, officials, street-level bureaucrats as well as citizens, who are the focus of this study. In the context of citizen-targets, compliance efforts are often referred to in the current compliance literature as formal ‘top-down’ interventions designed to change public behaviour so as to align with current policy arrangements (Gofen 2015). Drawing on well-documented compliance motivations of citizens, compliance efforts mainly recommend what government should or could do to secure compliance (e.g., May 2004; Tyler 2006; Winter and May 2001; see Weaver 2015 for a systematic review). What compliance efforts entail on-the-ground is often overlooked.

STREET-LEVEL PERSPECTIVE ON PUBLIC (NON)COMPLIANCE

Serving as the governmental tier that directly interacts with the public, street-level bureaucrats (SLBs) act based on discretionary power, balancing the demands of policy implementation with the priorities of the communities they serve (Lipsky 1980). Although varied and multiple motivations influence the ways through which SLBs exercise their discretion (Brodkin 2011; May and Winter 2009; Gofen 2013), SLBs often perceive themselves as governed by occupational or professional norms (Carey and Foster 2011; Hupe and Hill 2007; Maynard-Moody and Musheno 2003). Indeed, SLBs will act

divergently when policy and rules are perceived as preventing them from following their professional knowledge (Haynes and Licata 1995), not only when employed by governmental agencies, but also when employed by for-profit organizations (Dias and Maynard-Moody 2006). Following a professional imperative accords with a ‘citizen-agent’ perspective, which considers SLBs as flexibly adapting policy according to the judgements made about policy-clients (e.g., Brodtkin 2011). It accords less with a ‘state-agent’ perspective, which emphasizes the role of SLBs as executing state policies (e.g., May and Winter 2009).

Since SLBs directly interact with policy-clients, they serve as the governmental tier that first encounters public noncompliance. Nonetheless, the rich and varied street-level implementation literature mainly focuses on policy compliance *by* SLBs, overlooking how and to what extent street-level discretion is exercised in order to address the noncompliance of policy-clients as policy-targets (Gofen and Needham 2015). In accordance, SLBs are often portrayed as holding discretionary power which they exercise according to the perceived worth of the individual policy-client they interact with. Specifically, ‘tailored’ implementation efforts are made for different clients, that is, either moving towards, moving away from or moving against clients (Brodtkin 2011; Maynard-Moody and Musheno 2003; Tummers et al. 2015; Tummers and Bekkers 2014). The policy-client is often portrayed as subjected to street-level decisions and framed as the powerless side of the interaction (e.g., Brodtkin 2011). Even within ‘classical’ public noncompliance contexts, such as law enforcement, street-level research focuses on SLBs’ practices and their outcomes for citizens (Skolnick 2011) and on compliant behaviors of policy-clients (e.g., Weimer 1978). Little attention is given to contexts in which SLBs are expected, *during direct-delivery*, to secure compliance among policy-clients who themselves have discretionary power to decide whether to comply or not.

PUBLIC NONCOMPLIANCE WITH CHILDHOOD IMMUNIZATION

Exploring how public noncompliance with childhood immunization is addressed on-the-ground draws on the increased social legitimization of noncompliance with childhood vaccination in many Western democracies (Kroneman et al. 2006). This is evident in periodic spikes in the rate of non-vaccination of toddlers in recent decades, including the case study countries of England (Samad et al. 2006; Tickner et al. 2010), Sweden (Kroneman et al. 2006; Stefanoff et al. 2010) and Israel (Weisblay 2008). This study approaches immunization as a paradigmatic case in relation to compliance, necessitating hierarchical steering practices from government and a robust response to secure compliance where it appears to be under threat. Explanations for the spikes in noncompliance have been linked to a range of issues, within the broader theme of ‘social liquefaction,’ including the decline of solidaristic institutions and fluctuating rates of trust in government (Bauman 2013; Levi and Sacks 2009; Van de Walle et al. 2008), as well as a broader risk-anxiety in relation to children (Scott et al. 1998). Public noncompliance has also been linked to research studies, often later discredited, which appeared to show increased risks of damage to the child in conjunction with vaccination (e.g., NBHW 2008).

Many public health interventions have been implemented in an attempt to enhance compliance with vaccinations (see Dubé et al. 2015a for a review), including economic incentives for immunization providers (Briss et al. 2000). A few interventions have attempted to educate parents to encourage them to comply with vaccination, which follow a ‘knowledge-deficit’ approach (Dubé et al. 2015a; Dubé et al. 2015b). Such interventions span from face-to-face interactions for educating or informing parents about early childhood

vaccination (Kaufman et al. 2013; Ryman 2008; Saeterdal 2014) to mass media campaigns to promote vaccination uptake (Shea 2009). Similar to the themes of the broader noncompliance literature, additional studies of noncompliance with childhood immunizations draw on factors that have been found as influencing parents' vaccination hesitance and recommend what government should or could do to enhance compliance (e.g., Dubé et al. 2016). Such recommendations emphasize the need to map and identify parents' concerns (Oladejo et al. 2016), the need to apply cognitive and social psychological insights while shaping interventions (Rossen et al. 2016) as well as the need to develop web-based interventions for the purpose of helping parents make evidence-based decisions (Glanz et al. 2015). Reviewing the literature of childhood vaccination noncompliance and public health interventions demonstrates the preponderance of top-down approach to public noncompliance, focusing on formal, long-term interventions. Limited attention is given in the literature to how vaccinations noncompliance is informally addressed during direct-delivery interactions by street-level governmental agents.

RESEARCH DESIGN AND METHODOLOGY

To explore compliance efforts exercised by individual street-level workers during direct-delivery interactions, a qualitative case study methodology was selected. Two questions guided this study: First, how do frontline immunization nurses encounter and respond to parents' noncompliance with childhood immunization, that is, how, and to what extent, do nurses exercise their street-level discretionary power to secure parental compliance with children's immunization? Second, what role do regional and national public health officials play in the compliance efforts exercised by the nurses?

Comparing street-level compliance efforts with childhood immunization in Israel, Sweden and England provides an opportunity for comparative research into how different

countries implement the same policy (see Table1), which is lacking in street-level research (Hupe and Buffat 2014; Loyens and Maesschalck 2010; Maynard-Moody and Musheno 2012). In all three countries a standardised protocol of childhood immunization is implemented, in which vaccination against measles, mumps and rubella are predominantly given as a combined MMR vaccine. Moreover, as mentioned above, in all three countries spikes of decline in immunization rates and recent outbreaks of measles have been reported, and in all three countries these trends have been attributed to a number of factors including studies that introduced alleged links between the MMR vaccine and autism, such as the famous 1998 Wakefield article in *The Lancet* (NBHW 2008). Although it has since been discredited, the study received extensive public attention in the UK (Burgess et al. 2006), Sweden (Dannetun et al. 2005; Kata 2010) and Israel (Siegel-Itzkovich 2012; Weiss 2015).

Whilst these similarities facilitate comparative analysis, the selection of the countries draws on substantive differences in vaccine provision arrangements. It therefore follows a ‘least similar’ case selection logic, implying that if the same explanatory factor can be found in all three, this increases the likelihood that this factor has explanatory power (Yin 2009). Specifically, the three countries differ in terms of the organization of the health care and immunization systems (see Table1), the previous history of child vaccination (with Sweden starting its national program earlier) and the level of trust of citizens in public institutions – a factor that is known to affect compliance (Bachmann and Zaheer 2013). England was selected as the unit of analysis rather than the United Kingdom because of the increasing differentiation between health care systems in the different parts of the UK (Bevan et al. 2014).

[Table1]

Analysis draws on semi-structured interviews with a sample of the nurses (N=33) who are responsible for administering the MMR immunization protocol, given to infants and to

children nearing school age in each of the countries. The research team also interviewed civil servants from the health administration who work on immunization at a regional and national level (N=15), employed by the Department of Health or local government because, managers, in general, influence the ways SLBs exercise their discretion (May and Winter 2009). In the context of vaccination provision, managers are especially relevant because unlike the provision of many other public services, the direct-delivery of immunization is strictly registered and documented. Therefore, especially when diverging from the standardised protocol, the implementation actions of frontline nurses are visible to senior public health officials, which allows them a broad perception not only of the phenomenon of non-vaccination and the subsequent efforts to maintain herd immunity, but also of efforts to secure compliance that are exercised during direct-delivery interactions (see Table2).

[Table2]

National administrators were identified through a purposive sampling technique in which people with responsibility for immunization strategy were identified from national health ministry websites. In each country the location for the interviews was the city region in which the researchers' university was based since this offered access to a range of settings: affluent and deprived neighbourhoods; inner city, suburban and semi-rural areas. Regional public health officials were again selected through health organization website searches. Nurses in health clinics were identified through a range of strategies: email requests to General Practice managers (England) and health clinic managers (Israel, Sweden), and requests to regional representative bodies (e.g. Royal College of Nursing regional lead) to disseminate interview requests to members. Whilst these contact points ensured that the participant nurses were those who volunteered to take part rather than a random sample, the distribution of interviews was checked to ensure that the included

clinics/practices reflected diversity of immunization take-up rates across the region (covering low and high take-up areas, and affluent and deprived neighbourhoods).

Ethical approval for the interviews was given by the universities of the local researchers. Interviews took place between 2012 and 2016. They were undertaken by the local researchers either face to face or by telephone (depending on the preference of the interviewee), lasted between 45 and 150 minutes, and were audio recorded and transcribed, or were recorded in detailed field notes typed up during and shortly after each interview to address description and interpretation concerns. The team used common interview scripts in the three countries, developed by the researchers to be appropriate across the different country settings and translated by the team into the local language. Two interview scripts were used: one for nurses and one for public health officials.

Analytic Procedure

Analysis of the interview data was a process of abduction, with first level codes derived deductively from the research questions and sub-codes developed inductively from the data (Miles and Huberman 1994; Timmermans and Tavory 2012). Coding was done manually on Word documents, rather than using computer software which could not easily be shared across the different institutions. Each country team wrote up an initial report of the emerging findings to share around the full team, and face-to-face meetings of the research team were used to assure the validity of the interview tool (were all sites measuring the same phenomena?). Because establishing reliability criteria in qualitative research is known to be difficult (Elliot et al. 2013; Morse et al. 2002), data were independently analyzed by two researchers in each country and codes were compared in all-site discussions to ensure that the codes were being applied in the same way in the different sites.

Drawing on data collected from the three countries without considering the country of origin, the following phase of coding was a process of theory generation, from which the

researchers developed the concept of street-level negotiated compliance as a three phase process. An additional round of comparative analysis was then undertaken to code data against this theoretical frame in order to draw out differences between the three countries. One difference, for example, was a more sustained relationship between nurses and parents in the Swedish case and episodic relationships in the English and Israeli cases. Selected quotes from the interviews are included below as exemplars of the findings. Fuller presentation of the quotes is given in Appendix A to demonstrate the range of responses in the three countries.

The small n and the focus on one type of compliance activity is recognised as a limit to the claims that can be made in relation to generalizability. Nevertheless, the interviews in each country did reach saturation in the different practices that were being articulated by the nurses and officials (Morse et al. 2002). Data was used to undertake comparative theorizing around state responses to noncompliance (Yin 2009) such that the findings are generalizable to theory, in the way that Popay, Rogers and Williams (1998) set out: ‘the aim is to make logical generalizations to a theoretical understanding of a similar class of phenomena rather than probabilistic generalizations to a population’ (348). Specifically, the analysis of street-level compliance efforts allows for ‘the generation of the logical features of a type against which further cases can be examined with gradual evolution of our theoretical understanding’ (Popay et al. 1998, 348-9).

STREET-LEVEL NEGOTIATION: ADDRESSING PUBLIC NONCOMPLIANCE DURING DIRECT-DELIVERY INTERACTIONS

Analysis indicates that all informants, both nurses and officials in the three countries, mentioned encountering parents’ concerns with immunization, which mainly reflect general worries of potential harm or specific worries such as overloading a child’s immune system

at a pre-school age. Parents shared their concerns with the nurses, as well as their doubts about whether or not to comply with the immunization protocol, which indicates that nurses are provided with an opportunity to react during the direct-delivery interaction. Indeed, in response, nurses talked of exercising their discretion in an attempt to accommodate parental concerns and steer them away from noncompliance, which implies that immunization is not merely a deployment of a standardised provision protocol. Rather, frontline nurses' compliance efforts emerged as getting engaged in a joint decision-making process with the parent, during which the necessity and safety of vaccination as well as non-vaccination consequences are discussed, possibilities are weighted and current delivery arrangements are negotiated. This joint decision-making process is termed here *street-level negotiation*.

Street-level negotiation practices were mentioned by all nurses in the three countries, and often were described as an 'I said, she/he said' conversation. For example, one of the nurses emphasized that '*we [nurses] must take the time, to contain [parents' worries] ... listen to what they [parents] say, and do our best to reply to their worries*' (Israel, Nurse3). Referring to the back-and-forth discussion element in the process, another nurse stated that: '*You have to listen to them [parents] and confirm [parents' concerns]. Then you can use information to explain to them how it works*' (Sweden, Nurse 7). This discussion with the parents may, at-times, exceed the current interaction. For example, one nurse suggested guiding parents to look for additional information in the Internet:

The internet has changed everything hasn't it? They are able to get a lot of information, most of it not very good. The ones looking for it are the ones looking for an excuse not to have it... If they want to have it separately [the shots] I point them in the right direction on the internet, tell them what search terms to use. (England, Nurse5).

Street-level negotiation therefore reflects divergence of interests: parents weigh the possibility not to immunize their child due to their anxiety and hesitation, whereas frontline nurses seek to secure compliance in order to maintain herd immunity.

Street-Level Negotiation Phases: Trigger, Discussion and Outcome

In all three countries, street-level negotiation emerged as a similar three phase process: 1) a *trigger* that starts the negotiation as parents introduce doubts whether or not to comply with the immunization protocol. Notably, parental concerns are almost always portrayed by interviewees as legitimate; 2) reciprocal *discussion*, which entails exchange of perceptions, attitudes and professional information between parents and nurses; and 3) a negotiated *outcome*, in which street-level discretion is exercised to adjust the rather strict delivery protocol to a more personalized immunization provision.

Negotiation trigger: Legitimized parental hesitation: Descriptions of the appropriate ways to act in response to parental concerns and hesitation, which were provided by all informants, reflect that parental hesitation is considered legitimate and not denigrated. Specifically, informants emphasized that the response to parental concerns should not be disregarding or critical. Rather, parents' point of view should be respected and listened to with an attentive ear and the dialogue with them should focus on encouragement. Moreover, street-level implementation actions should avoid making parents feel like they have been forced to agree to their child having the vaccine against their will. (See Appendix, TableA1, Legitimization of parental hesitation). In accordance, one of the officials explicitly emphasized that '*[parents] want to understand so they ask many questions and may doubt our answers ... we just need to remember they do it because they care about their children ... because they think this is the right thing to do, not because of neglect*' (Israel, Official5).

Reciprocal discussion: personal appeals, highlighting of risks and senior professional authority: All nurses in the three countries specified that encountering parental hesitation

was often followed by taking time and effort to facilitate a discussion about immunization and its consequences. Moreover, nurses indicated that they tried to listen more actively to the parents and emphasized that they made an effort to develop tailored communications practices and personal appeals. During this discussion, nurses and parents exchanged personal perceptions and scientific information. Often, the discussion started by giving facts and providing information, however, when they encountered persistent resistance, nurses often diverted parents' attention to the dangers of the diseases that were covered by the vaccine and to possible negative implications of non-vaccination. This was seen to be important because people no longer have the fear of these diseases which older generations would have had. Before these diseases were gone and one could witness the outcomes *'people stood in a line and practically begged that their children would be immunized'* (Israel, Official2). An additional strategy to address persistent concerns, which was mentioned by nurses in all three countries is referring parents to a more senior nurse or health official who they felt could more convincingly ally the parents' concerns (See Appendix, TableA2, Tailored communication practices).

Negotiation outcome: Adjusting the standard vaccination protocol: The outcome of the negotiation, in all three countries, was often a joint decision about personalized adaptation of the immunization protocol, in which the immunizations were delayed according to the wishes of parents. Postponing the shot was commonly done when parents were sceptical, typically by telling them to go home and 'think it over' and that they could come at any future time to vaccinate their child (See Appendix, TableA3, Negotiated outcomes).

Importantly, practicing street-level negotiation to secure compliance may be a result of the unavailability of vaccine related sanctions in all three countries (see Table1), which requires steering and persuading the parents. Indeed, in all three countries, respondents often reflected a rather pragmatic approach which recognizes that there is no point in

fighting with the parents if the goal is the professional goal, that is, immunizing the children. Alongside this pragmatism, emerged a non-paternalistic approach of nurses and officials, who are both professionals, to the ‘lay’ parents. Specifically, parents were often portrayed as ‘equal’ in making the decision whether to immunize their child, either by referring to the role distribution between the parents and the professionals or by explicitly arguing that the parents are those who are responsible for their child. Additional repeated evidence for this ‘eye level’ approach of the professionals, is the emphasis of the need to get informed consent from parents (See Appendix, TableA4, Parents’ Portrayals).

Institutionalization of Street-Level Negotiation: A Comparative Perspective

Comparative analysis of street-level negotiation suggested that in all three countries nurses responded to noncompliance by engaging in negotiation with parents. In addition to the similarities set out above, three differences emerged between the countries, which are shaped by the institutional options available to nurses in their compliance efforts (See Appendix, TableA5, Institutionalization of Street-Level Negotiation).

The first difference refers to the use of personal appeals during the discussion with the parents. In Sweden, nurses spoke of the scope to develop a personal rapport over the long-term, as parents and the CHC nurse meet regularly in the child’s first year (once a week in the first months). They discuss all matters relating to the child’s well-being, including issues such as the domestic situation or post-natal depression. In accordance, nurses expressed a feeling of being trusted by the parents to offer guidance on immunization, and emphasized the significance of this trust. In contrast to Sweden, in England and Israel, parents and nurses met episodically and were unlikely to be able to develop more long-standing relationships. Consequently, common across the English and Israeli data was that nurses attempted to use the one-off interaction with parents as an

opportunity to build a rapid rapport. This context placed more emphasis on what could be achieved in the short period in which parents were in the nurses' office or health clinic.

With little likelihood of encountering parents outside of a vaccination context, nurses mentioned using two main improvisatory practices to develop a rapid rapport with parents. One was sharing their own family experience, which was presented as having a significant impact on parents and also demonstrates a non-paternalistic approach to parents. A second improvisatory practice was nurses framing themselves as advocates for the child's interests, which often implicitly emphasized that the parent and not the professional is responsible for the child health.

A second difference between the countries is the form of personalization, that is, the negotiated outcome. Whereas in England and Sweden there is no scope for separate shots, and most could offer hesitant parents only the scope to come back at a later date, in Israel, an additional possible outcome was to unbundle the vaccine into separate shots. This personalized approach was explicitly presented as a policy by one of the Israeli officials, who stressed that to allow the nurses to personalize the approach is 'best practice' in reality and that in many ways *'although personalization is not the mainstream...and is not supported with formal policy... it can be regarded as policy.'* (Israel, Official 4). Offering parents with the greater degree of flexibility in Israel may derive from the as availability of alternative routes to immunization, which are not present in the other countries (Amit-Aharon 2011). In Israel, nurses mentioned that parents could go outside the Family Clinic setting to seek guidance from a paediatrician. Paediatricians were seen to offer a route to a more 'tailor-made' vaccine, at a time or format of the parents choosing. The Israeli officials also emphasized that paediatricians, although professionally disapproving of diverging from the standard protocol, are willing to negotiate the immunization protocol with the parents before the child is immunized, which was not mentioned in Sweden or England.

A third difference related to the attitudes of regional and national public-health officials. In Israel and Sweden these officials encourage and enhance street-level negotiation by demonstrating support in nurses' efforts to secure compliance, although it involves rule-bending. However, in England public health officials did not acknowledge that there was any need for personalised appeals. In Israel, this approach is included in public-health nurses practical training, which now includes simulations in which nurses are trained how to respond to parents who express hesitation with the standard protocol. Moreover, the nurses reported that they have been guided by public health officials to try to convince parents to immunize their child according to the standard procedure, but, if these efforts fail, to respond to their request to delay immunizations or to split the immunizations for each disease. Some nurses mentioned that it was indeed helpful to consult with colleague nurses in order to share ideas about what sorts of appeals seem to win parents' trust. In Sweden, regular meetings were held by the Regional Child Health Services with all nurses on-staff and written guidelines were distributed to them on how to meet the parents' concern. Indeed, the interviewed nurses from Sweden confirm that they felt regional child health officials provided strong support to enable them to work productively with parents. In contrast, in England, whilst senior officials in the Department of Health recognized the importance of nurses as trusted conduits for information to parents, there was no evidence from the interviews that officials were supporting nurses in their difficult conversations with parents. In accordance, the nurses interviewed in England said that they lacked guidance from regional and national immunization officials on how to address parental hesitation, other than having access to the standard leaflets. They were left to find their own way to communicate most effectively with parents.

To conclude, in all three countries compliance efforts during direct-delivery interactions emerged as improvisatory practices undertaken by frontline professionals,

which enable hierarchical steering practices of government to function. These efforts address public noncompliance on-the-ground as a negotiation process between the frontline nurse and the parent, who discuss alternative options until reaching an agreement upon how to immunize. The outcome of this negotiation process is often a delay in the shots, which reflects a personalized adaptation of the protocol, thus a divergence from the instructed intervention. Notably, whereas in all three countries street-level negotiation emerged as a three phase process of trigger, discussion and outcome, the institutionalization of this process differs, mainly with regards to the resources available to the nurses at the frontline.

CONCLUSION

As a joint decision-making process that a frontline worker initiates to address a policy client's resistance, street-level negotiation promotes the empowerment of citizens and manifests the paradigm of new public service (Denhardt and Denhardt 2000). As a mechanism to secure public compliance during direct-delivery interaction with individual policy clients, street-level negotiation enhances the understanding of three established branches of implementation research: non-vaccination, compliance efforts and street-level work.

Within the literature on non-vaccination, street-level negotiation exemplifies one possible implication of the public's online health information-seeking, known as 'Dr Google' (Lee et al. 2014), as well as scientific citizenship, which refers to the tendency of individuals to enhance their own scientific literacy while challenging traditional forms of authoritative knowledge (Elam and Bertilsson 2003; Irwin 2001; Rose and Novas 2004). More generally, non-vaccination literature tends to focus on top-down governmental interventions to reduce noncompliance with vaccinations, such as national public health campaigns and incentivization of providers (Dubé et al. 2015a). Street-level negotiation

diverts attention to the overlooked compliance efforts that target parents' hesitancy during direct-delivery interactions. These practices of negotiated compliance, undertaken in local clinics and in bilateral conversations between nurses and parents, are hidden when account is taken only of immunization rates and when the outcome of direct-delivery interactions is approached as a binary option, i.e., either the immunization was given or not. Moreover, non-vaccination literature often portrays and approaches immunization as a rather simple public health service that deploys a uniform provision protocol with a binary outcome. In contrast, street-level negotiation indicates that vaccination is a complex provision process, with an array of possible outcomes, including various modes of partial compliance. Moreover, population-level interventions such as immunization, which are based on a model of standardised compliance, may be at odds with moves towards more personalized health services (Gofen and Needham 2015). However, what emerges from the analysis is examples of how personalized strategies can be part of the process of securing compliance, even in the case of standardised interventions. Personalization allows health practitioners to make new kinds of appeals to parents, in recognition that recourse to arguments about public duty and public health may be losing ground (Gofen and Needham 2015).

Within current compliance literature, public noncompliance is mostly considered within a top-down action-reaction sequence in which governments attempt to bring the public into line with current policy arrangements following evidenced noncompliance (Gofen 2015). Hence, interventions to secure compliance are relevant only *after* policy-clients behave non-compliantly (Weaver 2015). Focusing on street-level compliance efforts reveals that frontline workers experience noncompliance as an evolving decision-making *process* of a concerned policy-client, rather than as a *fait accompli*. Street-level negotiation therefore suggests a bottom-up perspective on noncompliance, which broadens the scope for compliance interventions, not only after, but also *before* noncompliance is practiced.

Specifically, when a client communicates hesitation or reservation, frontline workers take the time for face-to-face communication in which they discuss possibilities and weigh implications. At-times, the rather strict immunization protocol is personalized or delayed to accommodate parents' concerns and meet their requests. Emphasizing a processual perspective, street-level negotiation echoes the endogenous model of compliance discussed in the context of private firms as policy-targets, suggesting that compliance meaning is co-constructed by regulators and its targets (Edelman and Talesh 2011).

Within street-level implementation literature, street-level negotiation further exemplifies the established convention about the unique and significant role of direct-delivery interactions in both policy implementation and in the public sphere (e.g., Brodtkin 2011, 2013; Lipsky 1980). Differentiating policy goals and policy means, street-level negotiation sheds a new light on the coexistence between two well-documented viewpoints on street-level work, namely 'state-agent' and 'citizen-agent' (Maynard-Moody and Musheno 2003). Often portrayed as competing, the state-agent perspective views street-level work as the carrying out of formal policies, whereas a citizen-agent approach focuses on the judgements made about, and the implications of direct-delivery for individual policy-clients. In contrast, street-level negotiation suggests complementary rather than competing coexistence. From a state-agent perspective, street-level negotiation aims at meeting formal policy goals, i.e. immunizing children. From a citizen-agent perspective, street-level negotiation aims at accommodating the concerns and the needs of a specific individual parent (or parents) by personalizing the direct-delivery arrangements of a rather strictly standardised immunization protocol. Street-level negotiation also affirms the notion of 'moving towards' a policy-client, which involves bending the rules to meet clients' needs and demands (Dias and Maynard-Moody 2006; Tummers et al. 2015) as well as the documented tendency of SLBs to prioritize professional considerations (Hupe and Hill

2007; Lipsky 1980). However, this is not in the well-documented setting in which the frontline worker holds power, but rather in an overlooked setting in which policy-clients themselves have discretionary power to decide whether to comply or not. In addition, the comparative setting of the study further demonstrates how the calibration of direct-delivery arrangements influences the resources available to a frontline worker during the interaction with a policy-client. Since managerial signals influence street-level work (May and Winter 2009), the support nurses receive from officials legitimizes, and even institutionalizes street-level negotiation, thus, suggesting that rule-bending in street-level work is not as always as often portrayed, i.e., an action of the sole professional SLB at the frontline. Rather, rule-bending as a response to noncompliance may be supported at the managerial level of the compliance regime, as it was in two of our three cases.

Lastly, street-level negotiation as a conceptual framework may provide a preliminary bridge between street-level implementation and policy compliance traditions, which have been kept mostly separated. Specifically, exploring noncompliance in the context of street-level work diverts attention to overlooked compliance efforts on-the-ground and to street-level delivery interactions within which policy-clients hold discretionary power to decide whether to comply or not, therefore suggesting a more reciprocal and inter-dependent relationship between frontline workers and clients. Furthermore, current noncompliance literature focuses mostly on top-down efforts that attempt to align clients' behaviour with existing arrangements, overlooking responsive compliance efforts, which attempt to meet the specific concerns of a hesitating client by means of personalized appeals and informal modifications of current delivery arrangements. Hence, whereas current implementation research often focuses on how organizational conditions restrict delivery options (e.g., Brodtkin 2011, 2013; Brodtkin and Majmundar 2010), our study illuminates how policy clients' hesitance shapes direct-delivery arrangements that might involve bending the rules.

Attempts to meet formal policy goals by means of personalizing current delivery arrangements further support recent claims that ‘the effectiveness of many public services...require[s] the input and cooperation of citizens... [and] places more emphasis on client responsibility and active participation by clients in the success of their program’ (Smith 2012, 437).

For policymakers and administrators looking to secure public compliance across a range of services, there needs to be a recognition of the challenges that scientific citizenship and social liquefaction pose to professional expertise and policy standardization. Street-level negotiation highlights the need to provide frontline workers with the skills and resources to enhance citizens’ compliance during direct-delivery interactions.

To further understand street-level negotiation, future research should explore additional delivery situations in which apparently paradoxical relationship exist between standardised population-level interventions and personalized health or welfare interventions. In particular, it would be useful to explore how noncompliance is addressed on-the-ground in other services – beyond immunization – and whether street-level negotiation practices are consistent across different policy areas (e.g. health, welfare, education, industry) and different types of policy-targets (e.g. organizations). Future research in additional public services sectors will allow a better understanding of the reciprocal dynamics of public noncompliance and compliance efforts by government.

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Table1: The case study contexts: MMR vaccination in Sweden, England and Israel

	Sweden	England	Israel
Formal rules	Recommended, not mandatory, no formal sanctions for non-vaccination	Recommended, not mandatory, no formal sanctions for non-vaccination	Recommended, not mandatory, no formal sanctions for non-vaccination
Frontline nurse & relationship with the parents	The personal child health nurse assigned to all families at the time of birth;	A Practice Nurse that may be familiar to the parents, but not involved in other elements of the Healthy Child Programme (e.g., development checks);	Public health nurses who have special training in infants and toddlers' development;
Clinic	Public child health clinics	General Practice	Family health clinics: provides health and clinical services for pregnant women, toddlers and children (birth-6 years)
Payment	Free of charge	Free of charge	Free of charge
Compliance rate and marked declines	Consistently high at 90%-95% from mid 1980s; A decline between 1998 and 2002; After 2002 the average immunization rate recovered quickly, returning to the previous level of 96% in 2007; The rate by 2012:97.2%.	A decline during the late 1990s and 2000s; Coverage has recovered to the previous level of about 95%.	Sharp decline in take up from 1996, although figures have since returned to herd immunity levels
Noncompliance pattern	Small pockets of lower coverage in some communities, particularly the Somali community (western Stockholm) and the anthroposophical community (Järna, southern Stockholm); Apart from these sub-communities, there are no significant patterns as per the characteristics of parents (SES or ethnicity) who abstain from vaccination (Leval 2013; Wallby 2012).	Small pockets of non-vaccination in particular communities, including Gypsy-Traveller communities (Maduma-Butshe and McCarthy 2012; Ramsey et al. 2013), and anthroposophical communities (Ernst 2011)	Approximately 10% of parents Israel deviate from the standard protocol, either by delaying the vaccinations, splitting the shots, or by partial immunization (Velan et al. 2012)

Table2: Profile of interviewees

Country	Frontline Nurses	Regional public health officials	National public health officials	Total
England	10	3	2	15
Israel	10	2	4	16
Sweden	13	2	2	17