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# Antimicrobial stigmatization: Public health concerns about conventional pig farming and pig farmers' experiences with stigmatization



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#### ABSTRACT

According to the World Health Organization, antimicrobial resistance is one of the most severe threats to public health. Since the 1950's contemporary farming of pigs has been heavily dependent on the use of antibiotics. Recently, concerned experts of public health have become more outspoken, often, criticizing pig farmers for social irresponsibility and gambling with public health. Danish pig farmers are internationally renewed for their relatively low use of antibiotics. Nevertheless, the public criticism aimed at farmers is relatively strong in Denmark. Based on qualitative interviews with 30 pig farmers and 21 public health experts, this article sets out how pig farmers, according to public health experts, threaten public health and how pig farmers, according to the farmers, experience and internalize stigmatization related to their lives as farmers. By focusing on Danish pig farmers' experiencing public condemnation from scientific experts as well as in their local communities, this article proceeds along the line of existing research on health-related stigmatization.

## 1. Introduction

Research on social stigmatization focuses on people who possess 'discrediting attributes' (Goffman, 1963). Pescosolido and Martin (2015) classify stigmas associated with 'moral diseases' such as drug dependence (Harding, 1986) or 'immoral behavior' such as drunk driving (Fynbo, 2014). Public health studies explore stigmatized identities stemming from public perceptions of serious diseases such as cancer (Trusson and Pilnick, 2017) and contagious diseases such as herpes (Merin and Pachankis, 2011), hepatitis (Shi et al., 2013), and tuberculosis (Wynne et al., 2014). Furthermore, Rydström et al. (2016) show that children born with HIV experience stigmatization even though they do not carry any visible sign of the disease or can in no possible way be responsible for their infection. Furthermore, Faherty and Doubeni (2015) show that screening for Ebola itself carries the risk of stigmatization, even when the screening results are negative.

The present study proceeds along the lines of existing research on health-related stigmatization by focusing on stigmatization trends in a relatively new field. In Denmark and in several other countries such as the Netherlands, UK, and the US, the last two decades have shown a growing concern over the public health risks associated with the spread of antibiotic-resistant bacteria. Early on, critics focused on hospitals' lack of biosecurity in relation to so-called 'flesh-eating killer bacteria' (Dixon, 1996). More recently, however, the focus of many critics and public media has been centered on conventional pig farming and the spread of methicillin-resistant staphs (MRSA) related to this type of farming. According to the World Health Organization, sub-therapeutic distribution of antibiotics at large production facilities causes antimicrobial resistance in both animals and humans (WHO, 2001). Therefore, health professionals, micro-bacteriologists and public health researchers in many Western countries have become increasingly critical when querying conventional pig farmers publicly about the health-related harm caused by their farming.

In this article, we analyze contemporary stigmatization processes directed at pig farmers and individual pig farmers' experiences with stigmatization. The analysis uses qualitative interviews carried out in 2015 with 30 pig farmers and an additional 21 public authorities, scientific experts and stakeholders from the Danish veterinarian and medical sectors. More specifically, we identify current stigmatization processes oriented towards Danish pig farmers and analyze how the farmers experience those processes. The goal of the article is to add further knowledge to the elaboration of health-related stigmatization by 1) studying stigmatization of possible carriers of antibiotic-resistant bacteria, 2) analyzing different types of stigmatization aimed towards a single category of people (pig farmers), and 3) critically embedding health-related stigmatization within public disputes between scientific experts and stakeholders representing human and veterinary medicine.

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#### 2. Social stigmatization processes

From a sociological perspective, stigmatization is a social process that 'reduces' a person 'possessing an attribute that makes him different from others', a process whereby the person goes from 'whole and usual' to 'tainted' and 'discounted' (Goffman, 1963: 3). According to Goffman (1963: 2), stigmatization thus transforms a 'deviant' individual's 'social identity' from 'actual' to 'virtual'. Goffman focuses on three different types of stigma: bodily abominations, lack of willpower, and race. While the different types of stigma stem from different sources (physical deformities, immoral behavior and ethnicity), they have similar effects on the stigmatized individuals, who learn that they deviate from the 'normal' (Goffman, 1963: 5). According to Goffman's perspective, stigmatized individuals feel 'labelled', 'alienated', 'abolished' and 'not accepted' not so much because of their ostensibly deviant attributes but due to the social element of the stigmatization process (Link and Phelan, 2001). Stigmatization theory thus points towards a potential discrepancy between a stigmatized individual's two types of self: actual and virtual. Hence, the actual self relates to the individual's own awareness and possible acknowledgement of her or his deviation from the norm in question. The virtual self stems from the social stigmatization process and thus refers more to the stigmatizers and their conception of normality. Transitions between 'actual' and 'virtual' selves depend on 'labelling' of the deviation as 'dangerous' to public order or public health (Link, 1987).

The social labelling, which derives from current dominant norms, is crucial when individuals learn to perceive themselves as normatively different or socially deviant (Morone, 1997). Dominant norms, in other words, provide an important social context for stigmatization. In the same vein, Rasmussen (2012) specifies stigmatization of obese people as significantly dependent on social setting. Equally, in a review of 36 articles analyzing stigmatization of people with mental illnesses, Parcesepe and Cabassa (2013) show that this type of stigmatization depends on social setting. Several other studies similarly conclude that certain diseases and habits tend to invoke public stigmatization processes. These include HIV and AIDS (Brent, 2016), smoking (Holdsworth and Robinson, 2008) and lifestyle-related cancers (Bresnahan et al., 2013). Furthermore, Kim and Yi (2014) find that public stigmatization may persist even after people have recovered from cancer, while Farrugia (2009) reveals that stigmatization oriented towards autistic children also stigmatizes their parents.

Link and Phelan (2001) define stigmatization as a social process that evolves in four phases: 1) labelling, 2) stereotyping, 3) cognitive separation and 4) status loss and discrimination. Labelling refers to characterizing a person or group as 'noteworthy different'. Stereotyping refers to conceiving the difference as undesirable. Cognitive separation occurs when the labelling of certain characteristics entails a distinction between 'us' from 'them'. Finally, status loss and discrimination imply that stigmatized persons or groups experience social demotion. Acknowledging the risk of social demotion, Livingston et al. (2012) conceive health-related stigmatization as a social process that 'devalues', 'rejects', and 'excludes' entire groups of people solely on the basis of their 'socially discredited' disease characteristics. Health-related stigmatization can thus occur already with initial diagnoses of potential diseases. Similar to Livingston et al. (2012), Ploug et al. (2015) relate stigmatization to MRSA-screenings of certain social groups, such as pig farmers and their relatives. In relation to MRSA, Bisdorff et al. (2011) indicate that people who live close to pig farms are at a higher risk of becoming infected with MRSA than people who live further away. Finally, Skyman et al. (2010) find that lack of knowledge about MRSA is a major driver of the social stigmatization of pig farmers.

Turning the perspective from how stigmatization processes develop to how they are experienced by the stigmatized individuals, sociological research outlines three ways in which stigmatization is experienced: as internalized stigmatization, socialized stigmatization and institutionalized stigmatization (Corrigan et al., 2006; Herek et al., 2009;

#### Livingston and Boyd, 2010).

Internalized stigmatization refers to how stigmatized individuals acknowledge their stigma. That is, their understanding of being socially rejected or treated in a special way by their surroundings because they carry a specific stigma (Crocker and Major, 2003). In order to avoid further stigmatization, internalized stigmatization may cause stigmatized individuals to avoid contact with their stigmatizers - or the general public - or to hide their special attributes and 'pass' as 'normal' (Goffman, 1963). Internalized stigmatization can also imply that people in anticipation of being rejected by the 'surrounding community' direct their attention towards other people who carry the same stigma, thereby, grouping with other people who have been subjected to similar stigmatization (Young, 1971) – such as smokers getting together at social functions. Social stigmatization refers primarily to the experience of collective stigmatization. Social stigmatization thus depends on the construction of stereotypes about groups of people who, according to the stigmatizers, possess some sort of deviant attribute. According to Corrigan et al. (2005) this type of stigmatization is experienced both at the individual level, for example, when socially interacting with other people, and at the social level, for example, when public speakers or media refer to entire groups of people in condescending or discriminatory ways. Institutionalized stigmatization refers to differentiated treatment by which formal institutions set up special procedures for certain groups of people. Corrigan et al. (2005) relate institutionalized stigmatization to scientific knowledge, for example, about health risks associated with particular groups and/or on ongoing processes of social stigmatization. Maternity wards isolating women married to pig farmers is an example of institutionalized stigmatization.

In the following analysis, we present findings from qualitative interviews with 30 pig farmers and 21 experts and stakeholders. We clarify how pig farmers according to scientific experts and stakeholders deviate from important norms by representing a significant risk to public health and how the farmers experience stigmatization related to their perceived risk-based deviance. We do not *per se* conceptualize the pig farmers' selves as either actual or virtual but instead focus on how the interviewees account of their own social position – as potentially dangerous to society. How do they, if at all, understand themselves as a risk to society? How do they view themselves in terms of society's perception of them as dangerous? And how do they feel about possible stigmatization processes stemming from public risk assessments of modern day pig farming?

### 3. Methods and data

The sample of interviewees for this study represents significant groups related to the use of antibiotics in Denmark: practitioners (doctors, farmers and veterinarians), public authorities, scientific experts, and stakeholders from human or veterinary medicine. The study adheres to prescribed standards for social research (ASA, 1999) and was carried out in accordance with the ethical guidelines for the social sciences specified by the Danish Council for Independent Research. At the beginning of all interviews, interviewers informed participants about the research project and obtained the interviewees' informed consent to participate in a recorded interview. For this article as well as all other publications based on the present data interviewees are thoroughly anonymized.

The sample consists of 30 farmers and 21 public authorities, scientific experts and stakeholders; ten women and 41 men. The shortest interview lasted 42 min and the longest 151, and the average duration of the 51 interviews was 88 min. The sampling of interviewees followed two parallel tracks: one for pig farmers and one for public authorities, scientific experts, and stakeholders.

Author one requested an experienced veterinarian working with conventional pig farmers to take him on as an observer for a week. During this week, author one visited fourteen pig farms. The veterinarian introduced him to the farmers and farm workers on all the

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