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Swedish Vision Zero policies for safety – A comparative policy content analysis

Ann-Catrin Kristianssen[a,b,*], Ragnar Andersson[a], Matts-Åke Belin[c,d], Per Nilsen[e]

[a] Centre for Public Safety, Karlstad University, 651 88 Karlstad, Sweden
[b] Department for Humanities, Education and Social Sciences, Örebro University, 70182 Örebro, Sweden
[c] KTH Royal Institute of Technology, 100 44 Stockholm, Sweden
[d] Swedish Transport Administration, 781 87 Borlänge, Sweden
[e] Department of Medical and Health Sciences, Linköping University, 581 83 Linköping, Sweden

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ABSTRACT

The Vision Zero policy was adopted by the Swedish parliament in 1997 as a new direction for road traffic safety. The aim of the policy is that no one should be killed or seriously injured due to traffic accidents and that the design of the road transport system should be adapted to those requirements. Vision Zero has been described as a policy innovation with a focus on the tolerance of the human body to kinetic energy and that the responsibility for road safety falls on the system designers. In Sweden, the Vision Zero terminology has spread to other safety-related areas, such as fire safety, patient safety, workplace safety and suicide. The purpose of this article is to analyze, through a comparative content analysis, each Vision Zero policy by identifying the policy decision, policy problem, policy goal, and policy measures. How a policy is designed and formulated has a direct effect on implementation and outcome. The similarities and differences between the policies give an indication of the transfer method in each case. The results show that the Vision Zero policies following the Vision Zero for road traffic contain more than merely a similar terminology, but also that the ideas incorporated in Vision Zero are not grounded within each policy area as one would expect. The study shows that it is easier to imitate formulations in a seemingly successful policy and harder to transform Vision Zero into a workable tool in each policy area.

1. Introduction

Vision Zero was adopted by the Swedish parliament in 1997 as a new direction for road traffic safety (Swedish Parliament, 1997a, 1997/98:TU4). According to the decision, the long-term goal of road traffic safety is that no one should be killed or seriously injured as a result of traffic accidents in the road transport system and that the design and function of that system should be adapted to the requirements of Vision Zero (Swedish Parliament, 1997b, 1997/98:13). Vision Zero has been described as a policy innovation within road traffic safety as it differs from traditional traffic policies with regard to a problem formulation based on scientific principles regarding injuries, its view on responsibility, its requirements for the safety of road users, and the ultimate objective of road safety work (Belin et al., 2012).

Vision Zero is internationally seen as a promising road traffic safety policy (International Transport Forum/OECD, 2016; Kim et al., 2017). This impression has been strengthened by official statistics in Sweden showing that the number of road deaths was halved and that the number of deaths among car users decreased by 60% during 2000–2010. While the decrease has stagnated somewhat after 2010 (Swedish Transport Administration, 2016), Sweden's roads are still among the world's safest, with only 3 of every 100 000 Swedes dying on the roads each year, compared to 10 in the USA (OECD, 2016). The positive development of road deaths has been seen by many as proof of the policy's effectiveness. It should be noted though, that few studies show a direct cause-and-effect between the Vision Zero policy as a whole and the positive development, but there are studies indicating such a connection (c.f Strandroth, 2015).

Vision Zero policies for road traffic safety have been introduced in other countries, such as Norway, Denmark, and the USA. In Sweden, the Vision Zero terminology has spread to other safety-related areas, such as fire safety, patient safety, workplace safety and suicide. Furthermore, similar policies have been proposed in a number of other policy areas, including pollution at sea, homelessness, drowning prevention, eviction

* Corresponding author at: Centre for Public Safety, Karlstad University, 651 88 Karlstad, Sweden.
E-mail addresses: ann-catrin.kristianssen@kau.se, ann-catrin.kristianssen@oru.se (A.-C. Kristianssen), ragnar.andersson@kau.se (R. Andersson), matts-ake.belin@trafikverket.se (M.-Å. Belin), per.nilsen@liu.se (P. Nilsen).

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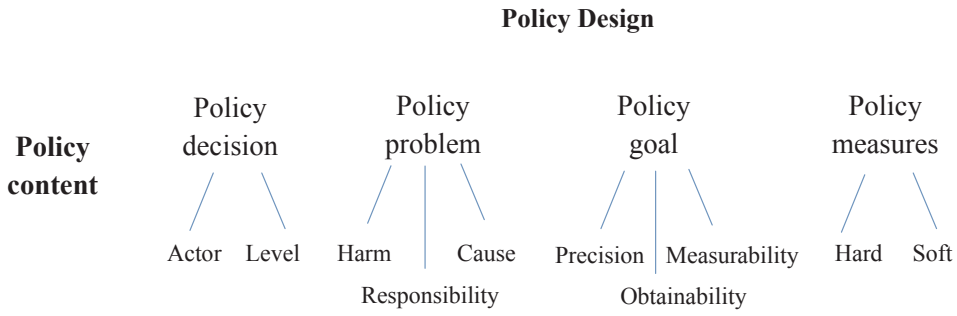

Fig. 1. A policy content analysis framework.

of families with children, violence against women, and drug use in schools to name but a few areas. It is also important to acknowledge that the concept has also inspired technological innovations in for instance the car industry, where several brands are working towards zero crashes. This cross-sectoral diffusion of Vision Zero raises a number of questions such as whether we are merely witnessing diffusion of a "buzzword" or if the policies are built on similar approaches to problem and goal formulation as well as measures to achieve this goal. While diffusion of policy innovations has been described by many scholars (c.f. Rogers, 2003), this research has predominantly had a processual approach, i.e. emphasizing *how* policies are diffused and transferred while focusing less on *what* is transferred, i.e. transfer content (Knill, 2005). Central to this article, transfer content is a key aspect in understanding the nature of the transferred policy and whether an actual diffusion has taken place at all.

Research on Vision Zero policy is relatively limited (Zweetsloot et al., 2013) and has focused on road traffic safety, with scant attention paid to cross-sectoral or comparative aspects. This study provides a cross-sectoral policy content analysis in order to identify similarities and differences between Vision Zero policies in five safety areas: road traffic safety, fire safety, suicide, patient safety, and workplace safety. All of them nationally adopted in Sweden for the common purpose of preventing fatal and serious injuries. The purpose of this article is twofold: to describe the actual content of each Vision Zero in terms of the formal policy formulation in policy documents and to analyze and discuss policy content variation. The article contributes to the research on Vision Zero from a broad safety science perspective and adds to the knowledge on cross-sectoral policy transfer.

2. Vision Zero in safety research

The concept of Vision Zero engages a growing number of scholars, but research has mainly been restricted to issues concerning the applicability of Vision Zero. There are exceptions, such as an in-depth study by Belin et al. (2012) providing a deconstruction of the policy, and a comprehensive description in an article by Kim et al. (2017). These studies show that the Vision Zero policy design is connected to the shift within safety research from a view of accidents as the main problem to kinetic energy and the tolerance of the human body as the real cause of deaths and serious injuries, as proposed by de Haven (1942/2000), Haddon (1968, 1970, 1972, 1973, 1980), and Robertson (1983). Another key component is the shift from individual responsibility to the importance of system design (Reason, 2000), as well as an acceptance of accidents and minor injuries occurring, but not deaths and serious injuries. The advantages of this "system's approach" have been highlighted by several researchers (c.f. Larsson et al., 2010; Salmon et al., 2012). The philosophical and psychological aspects of Vision Zero have also been studied in relation to suffering (Dekker et al., 2016), and human behavior and mistakes (Šucha, 2014).

A few Vision Zero studies have focused on key components, such as problem formulation and design principles (Johansson, 2009), concluding that the introduction of Vision Zero entails a change in traditions and road traffic culture, as well as new ethical and moral principles (Elvebakk, 2007), leading to trade-offs, differences and conflict of interests (Belin and Tillgren, 2012) within the policy area. Vision Zero has been criticized for presenting an unobtainable, unrealistic, rhetorical, and irrational goal (Elvik, 1999; Lind and Schmidt, 1999), for undermining the individual responsibility and freedom (Ekelund, 1999), and for not being cost-efficient (Elvik, 2003). Such criticisms have been met with arguments that the policy provides a rational response to an urgent problem (Rosencrantz et al., 2007) and that the focus on system design provides a complement to, rather than replacing, the responsibility of the individual (Nihlén Fahlquist, 2006).

3. A framework for comparing public policy content and variation

In order to identify the 'transfer content' (Knill, 2005) of the five Vision Zero policies, a framework based on a definition drawn from public policy literature (c.f. Hall, 1993; Birkland, 2010; Cairney, 2012; Knill and Tosun, 2012) is used. The framework contains the basic components of a public policy, i.e. the policy design, here identified as policy decision, policy problem, policy goal, and policy measures (see Fig. 1).

Knowing more about how a policy is designed is crucial as the actual policy formulation effects policy implementation and outcomes. The design is based on the ideas and motives of public authorities and other influential actors, sometimes referred to as program philosophy (Conrad and Miller, 1987), traditionally studied by using program theory (c.f. Bickman, 1987; Rose, 1991). A policy is often based on ethical or utilitarian aspects often derived from best practice and innovative policies and Vision Zero is apparently seen as such.

A public policy is thereafter formulated in a *public decision-making* procedure. The term public indicates that the policy is initiated by, or at least in cooperation with, public authorities, whether it is on local, regional or national level or executive, legislative, judicial or bureaucratic. Key factors here are decision-making actor and level. Second, a public policy is based on a demand and a formulation of a specific societal *problem*. The problem formulation is based on some sort of societal harm, what causes it, and who is responsible for the problem and its solution (Stone, 1999; Knill and Tosun, 2012). What problem ends up on the agenda is part of a construction process and often related to power (Bacchi, 1999). Third, a policy contains a definition of purpose and sets a *goal*. The formulation of goals can be analyzed by using concepts from policy implementation, policy decision-making, and policy evaluation theories (c.f. Elmore, 1978/1997; Peters, 2015). A goal can be studied based on its clarity and precision, if it is measurable, reasonable, and realistically obtainable, in terms of distribution of tasks and resources. Finally, a public policy is related to action and policy instruments, meaning the establishment of strategies and a set of specific *measures*. These measures are here separated into two larger categories; first, 'hard' or direct measures meaning more directive and authoritative instruments, such as laws, inquiries, national strategies, reforms, and second, 'soft' or indirect measures meaning economic subsidies and information instruments, such as providing resources and launching information campaigns (Howlett, 2011; Knill and Tosun, 2012; Peters, 2015).