

Insurance Coverage for Traffic Accident Victims in Iran's Health System

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Abstract

Background: Injuries from traffic accident are the second cause of premature death (after ischemic heart disease) in Iran. In 2004 and 2010, two laws (Articles 92 and 36) were passed by the parliament addressing free health service delivery to victims of traffic accidents (financed by third party insurance premiums).

Objectives: The current study explored the challenges and complexities related to problems in the implementation of Articles 92 and 36.

Methods: This qualitative study was conducted using the framework analysis method. Thirty-six experts, managers, and policy-makers were selected using snowball sampling. Data was collected through semi-structured interviews in 2016. Data saturation supported the sample size, and Atlas.Ti5.2 software were used.

Results: Four main themes were identified in the data analysis namely policy content, policy context, policy processes, and policy makers. Nine sub-themes emerged during the analysis history and the necessity of legislation.

Conclusion: Enforcing out-of-coverage financial loads on basic insurance companies and accident victims along with generalization in providing service packages are the most important challenges hampering implementation.

Keywords: Healthcare Provision, Traffic Accident Victims, Insurance.

Introduction

Traffic accident injuries are a major cause of loss of life. They are the leading cause of death in Iran and rank eighth in the world (1, 2, and 3). In Iran, the traffic accident death toll and injury rate are twice and five times the global average, respectively (4).

Some countries have a separate financing system for paying the healthcare costs of traffic accident victims. For example, Colombia, Thailand, and Hong Kong have a special fund for supporting accident victims which complements the country's base insurance (5-7).

Given the importance of providing timely treatment services, in 2004, Iran's legislature forced the Ministry of Health and Medical Education to take action so that traffic accident victims could obtain immediate and free treatment in all public and private health centers and receive specialist care and follow-up treatment. This was achieved through the approval of Article 92 of the Fourth Development Plan and

was continued in the Fifth Social, Economic, and Cultural Development Plan of the Islamic Republic of Iran. According to these articles, 10% of third-party insurance premiums from commercial insurance companies are paid directly to the Ministry of Health to finance the resources required for free medical and diagnostic services for traffic accident victims (8).

Objectives

Since its implementation, no definitive administrative procedure for this law has been established. There is a critical lack of research on Article 92 and its challenges and opportunities in Iran. This study aims to explain the challenges of administrating the Traffic Accident Victims Protection Act (TAVPA) and propose solutions to its challenges.

Materials and Methods

This applied research study used qualitative methods. Targeted and quota sampling procedures were employed to identify respondents using a snowball sampling technique. Sampling was continued until data saturation was met.

The data collection tool was a semi-structured interview guide developed using the theoretical foundations of the topic and content of the pilot interview; its validity was confirmed by experts. The interview guide consisted of questions that included content, process, actors, and context. The questions were designed based on a literature review and in the form of a triangle of policy analysis, which provided a framework for the analysis of the policy for financing traffic victims' health services.

All interviews were conducted at the interviewee's workplace and completed in 2016 (between March 13 and September 17). Interviews were recorded with the interviewee's permission and awareness, and the collected data was stored with Microsoft Word software. Each interview lasted approximately 60 minutes.

A five-step framework was used to analyze the interview data. First, a thematic framework was identified; then data was indexed, charted, mapped, and interpreted. This method is appropriate for analyzing qualitative data in the area of policies (9, 10). Atlas.ti 5.2 software was used in all steps of the qualitative data analysis. This software analyzes qualitative data and allows for coding of the interview text and code integration (11, 12).

Although the initial conceptual framework comprising three themes remained unchanged, subgroups of this conceptual framework were revised several times and significantly throughout the analysis process.

Because the data collection and analysis occurred simultaneously in this study, the researcher recorded the interview text after the interview and coded it before the next interview. Lincoln and Guba's evaluation method was used to assess reliability and validity (13).

In this study, the selection criteria for the interviewees included completed research projects or related published articles, participation in policy development, decision-making or implementation related to the financing of healthcare for accident victims. At least one of the above-mentioned criteria had to be met to qualify for this study. In total, 36 interviews were conducted with different groups of actors, including officials of the Ministry of Health (MH), officials of the medical science university (U), officials of insurance offices (I), service providers (P), and researchers (R).

Ethical approval for the present study was obtained from the Research Ethics Committee of Kerman University of

Medical Sciences. The purpose of the present study and the right to withdraw from the focus group were explained and written informed consent was obtained from all participants prior to their interviews. All discussions were recorded anonymously and kept confidential.

Results

After analysis, the challenges related to TAVPA were extracted from the qualitative data. The mean age of the interviewees was 45.5 ± 3.27 years, and 5% of the interviewees were male. The average time of work experience was 19.65 ± 1.94 years.

Four main themes were identified in the data analysis: policy content, policy context, policy processes, and policy actors. Nine sub-themes emerged during the analysis (Table 1). To ensure anonymity, each interviewee was assigned a specific code.

1. Context

This concept included policy formulation and implementation. The codes related to this concept, including two opportunities (history and necessity of legislation) and one challenge (process of law codification), are outlined below:

1.1 History

Prior to adopting Article 92 in the Fourth Development Plan, the liable party's commercial insurance was responsible for paying the cost of victims' treatment services. If the liable party did not have commercial insurance, he was personally responsible for all costs.

"When the liable party left the scene or there was not enough evidence to determine liability, victims paid for services with their medical insurance or out of pocket... Thus, the government decided to address the problem of identifying the financially responsible party by paying for medical care, regardless of the party's liability, by adopting Article 92 in the fourth and Article 37 in the fifth development plans" (13).

1.2 Necessity of legislation

Conflict between commercial and treatment insurance over the costs and responsibility for paying them often resulted in confusion between the patient and their attendant in the hospital and imposed catastrophic costs to people who had no commercial or treatment insurance. This problem evidenced the necessity of a government remedy.

1.3 Process of law codification

Lack of participation by stakeholders in the law development process:

"...Basic health insurance companies could not declare their opinion in the fourth and fifth programs because the Ministry of Health used its decision-making power..." (P 24).

Policy-making with limited resources:
 "...According to the interviewees, most health policies in Iran are not based on research, but on people's opinions.

Appropriate policy change requires human, time, and informational resources..." (P13).

Table-1. Implementation challenges of TAVPA's themes and codes

Themes	Codes	Sub-codes
Context	History (Opportunity)	-
	The necessity of legislation (Opportunity)	
	The process challenges of law codification	
Content	The content challenges of the service package	Implicit entitlement criteria for victims Implicit service benefit packages
	Legal challenges and opportunities	Lack of impact of volatility on health expenditure share of GDP (opportunity) Deficits in the details of Article 92 Ambiguity in Article 92
Process	Financing challenges	Revenue collection challenges Pooling challenges Purchasing challenges
	Service provision challenges	The low number of trauma centers The long process of service delivery to patients Disregard for the patient's right to choose The monitoring of health care providers
Actors	Victims' challenges	Patients unaware of their rights A general distrust of government hospitals Information asymmetry Driving culture
	Service providers' challenges	Cartel between providers Physician-induced demand Financial burdens due to obligations Shifting the patient to the private sector Irresponsible prescriptions for services by doctors

2. Content

The second aspect of TAVPA is the policy's content, which faces the challenges discussed below.

2.1 Content of the service package

2.1.1 Implicit entitlement criteria for victims

The challenges in this area included limitations on identifying traffic accident victims, the difficulty and impossibility of providing the specified documents for most victims, and the lack of effective criteria, such as an Iranian Legal Medicine Organization report. The Ministry of Health has not defined an alternative to these documents when they cannot be provided.

2.1.2 Implicit service benefit packages

There is no clear definition for the basic package for traffic accidents. One expert believed that:

"...The openness of the basic service package was not scientifically acceptable, was a waste of resources, and led to the imposition of personal opinions..." (I2).

2.2. Legal challenges and opportunities

2.2.1 Lack of impact of volatility on health expenditure share of GDP (opportunity)

According to the experts, Articles 92 and 37 were necessary and have created many opportunities. In many cases, the challenges are related to weaknesses in the implementation of the law, not the law itself. One expert stated,

"...Articles 92 and 37 of the fourth and fifth development programs are so right and progressive, but law enforcement is in trouble..." (R 9).

One of the benefits of enacting this law is that funding for the treatment of injured people does not affect the health sector's share of the GDP and is very stable. One reason Article 92 was enacted by the government was to enforce the existing laws that address financing treatment for injuries and the challenges.

2.2.2 The ambiguity of Article 92

Some issues in Articles 92 and 37 are not thoroughly addressed, which has caused ambiguity in the implementation of the law. This ambiguity may also result from the complexity of the defined processes in the law that has led to personal interpretations of it by law enforcement.

2.2.3 Defects in the details of Article 92

According to several experts, this law is deficient, because commercial insurance has no legal obligation. Central

insurance is only the supervisor, and the Ministry of Health has to bargain with commercial insurance directly to receive 10% of the third-party insurance premiums. In contrast, according to this act, the Ministry of Health is the health service customer and provider.

3. Process

In the third concept, the policy triangle, the current process of enforcing TAVPA, was discussed.

3.1 Financing process challenges

One of the important processes in enforcing TAVPA is the process of financing victim's treatment costs, which includes revenue collection, pooling, and purchasing.

3.1.1 Revenue collection challenges

In the process of revenue collection, commercial insurances pay 10% of the third-party insurance premiums; any excess goes directly into the state treasury as outlined in Article 92. Iran's central insurance organization monitors the revenue collection process, which faces the following challenges.

Some interviewees mentioned non-receipt of timely and adequate financial resources; for example:

"...Payments are highly delayed, resulting in financial pressure on hospitals, which is the last chain of the process... thus, this pressure is transmitted to patients..." (P7).

Several experts believed that there is injustice in revenue collection; for example:

"...The revenue collection process is unfair, because low- and high-risk drivers participate equally in financing treatment for victims. Secondly, the government is responsible for treatment, not the victims..." (P8).

"...Third, the role of the passenger in traffic accidents is ignored, as only drivers are at risk for revenue collection..." (I5).

Lack of proper cooperation between organizations involved in the revenue collection process is also an important challenge.

The process of health services financing for traffic victims is complex:

"...It is not a proper cycle in which people pay money to the commercial insurance company, which then pays the government and the Ministry of Health. It is better that people pay 10% of the insurance premium separately and directly to the Ministry of Health..." (I 31).

3.2 Pooling challenges

Lack of legal authority for economic activity is another challenge.

"...The Ministry of Health does not use the accumulated money; thus, there should be an authorized power to do so and provide for people's treatment costs from investment profits. The Ministry of Health of Iran neither invests nor accumulates this money. It is only a distributor..." (P 26).

3.2.1 Instability of financial resources

According to the experts, there is no resource management or accumulation, because the funds are not accumulated in one account.

3.2.2 Unfair distribution of financial resources

"...Money paid to the university by the Ministry of Health is not in line with the costs that were paid to the hospitals..."

3.3 Purchasing

3.3.1 The challenge of applying deductions

"...When examining the financial records of victims, a deduction is applied to the hospital bill due to false records of events or incomplete and unacceptable records. This leads to financial losses for health centers in addition to payment delays..." (I3 0).

3.3.2 Monitoring of the beneficiary of hospital costs

"...There is no strong or effective monitoring, because the Ministry of Health plays controller and service provider roles at the same time..."

3.3.3 Inappropriate payments to medical teams

The interviewees introduced two reasons for the inappropriateness in payments to medical teams: inappropriate fee payment systems and disproportionate pay for services.

"...The FFS system is not suitable; when a patient is dealing with pain, the physician is writing a service report to obtain money..." (11P).

3.3.4 Illogical differences between public and private sector tariffs

"...Patients have to pay the difference between the public and private sector tariffs..." (15R).

3.4. Service provision process challenges

Challenges to the service provision process include the low number of trauma centers, the long process of delivering services to patients, disregard for the patient's right to choose in the treatment process, monitoring of healthcare providing centers, the inability of the Ministry of Health to prevent abuse by some providers.

4. Actors

The fourth aspect of the policy triangle is the main actors involved in the process of enforcing TAVPA, which includes the following.

4.1. Victims

Traffic accident victims are one of the main actors.

4.1.1. Patients' unawareness of their rights

The government does not inform people to the extent required. This lack of knowledge often leads to abuse by the treatment team and losses for patients.

4.1.2. Driving culture

Experts believe that in order to solve traffic accident problems and victims' financial problems for receiving medical services, other accident factors, such as cultural issues, must be reviewed.

"...Insurance centers can participate by highlighting the difference between liable and not liable drivers. The rules should be revised for cultural improvements..."

4.1.3. Information asymmetry

"...The physician is the master of the treatment process, and nobody can force him to only prescribe special equipment..." (P21).

4.2. Service providers

Service providers include the Ministry of Health, Iran's health system and its staff, medical equipment companies, commercial and treatment insurance companies, and Iran's traffic police.

4.2.1 Unlawful agreement (cartel) between providers

"...The Cabriolets Request Act also led to a challenge. For example, the police may take bribes to give the cabriolets..." (P8).

4.2.2. Financial burden out of obligation (on victims or their medical insurance)

"...When victims present false information because they had no driver's license or other problems, the victims are responsible for the cost. The cause of injury is not reported as an accident. This may lead to the loss of the patient and insurer, because the victim has to pay the franchise and the insurer has to pay the costs because they are not free..." (I12).

4.2.3. Physician-induced demand

Requests that exceed the patient's needs are a problem that often occurs in hospitals.

4.2.4. Leading the patient to the private sector

According to the expert treatment staff, in some cases, patients are discharged against medical advice and moved to private hospitals.

4.2.5. Prescribing illogical services (irresponsible)

The Ministry of Health follows a resistive economy due to a lack of funds. According to the ministry's protocols, the treatment team must prescribe Iranian products for the victims' treatment, but this process is not followed.

Discussion

This study investigated the opportunities of, challenges to, and proposed solutions for enforcing TAVPA. Based on the results, opportunities in the Context dimension included the need to pass legislation and a history of service to the injured. The main function and aim of approving the Traffic

Accidents' Victims Protection Act was to minimize the financial burden of medical treatment for traffic accident victims and service providers. Approving this act ensured that all citizens can be referred to hospitals without worry about the cost of services. It also ensures service providers that the costs for emergency services will be paid by the government.

Lack of stakeholder participation in developing the act and policy-making with limited resources were two main challenges related to context. Basic insurance providers are the Ministry of Health's primary partners in universal health service coverage in Iran. Thus, every act that influences the provision of financing for health services should be developed and approved in collaboration with all stakeholders (14). The development and approval of Article 92 did not include enough supporting documents. In cases where there is no possibility for evidence-based policy-making, policy makers can do evidence-informed policy that is suited to situations requiring quick decisions (15, 16).

Ambiguity in the criteria for identifying victims is one of the challenges related to content. The main goal in approving Article 92 was to provide universal health service coverage for accident victims; however, complete service coverage has not yet been achieved by this law. A review of other countries' experiences showed that Thailand is the only country that has a special fund, similar to Iran's, for financing traffic accident victim's health services. Thailand provides two packages of basic and supplementary health services for traffic accident victims which also cover victims who do not have insurance, such as foreign citizens. Moreover, there are minimal criteria for identifying traffic accident victims, which include the hospital bill and confirmation and the victim's ID card for third-party insurance holders (17). The emphasis should be on law enforcement and Article 92, and the allocation of sustainable budgetary resources should continue.

Strategic purchasing identifies the relationships between governments, purchasers, and providers to increase the effectiveness and performance of providers by developing obvious mechanisms for contracts, managing financial incentives, assessing, and prioritizing (18). However, the lack of legal obligations on commercial insurance for making on-time payments for TAVPA and the dual role of the government as a service provider and purchaser are two main obstacles of strategic purchasing in Iran. These multiple roles eliminate the possibility of monitoring the performance of TVAPA's service providers and purchasers and may interfere with patient rights. Thus, patients' needs are addressed in different ways according to the financial power of TAVPA.

Identical contributions from high-risk drivers and others in

accumulating funds imposes the total risk on drivers and does not acknowledge pedestrians' participation, which leads to unfairness in the accumulation process. This was discussed in Iran's parliament, but its relevance was rejected, and most members viewed the current trend as the best solution (19). In Thailand, to prevent imposing the total risk on drivers, in addition to 10% of the third-party insurance premium, a portion of TAVPA is provided through a general tax. Thus, passengers and other people who do not drive participate (20).

The driving culture is a challenge for traffic accident victims. An appropriate insurance plan could provide incentives for changing patients' and service providers' behaviors (21). Fund accumulation mechanisms could also affect the driving behavior of citizens. Furthermore, all members of society should be aware that public hospitals have to admit them without any preconditions, and people can use all health services without having an insurance card or paying a franchise after a traffic accident.

Charging victims for illegally using their insurance cards because of TAVPA fund disabilities for providing health costs, encouraging patients to use private hospitals which is called "skimming", hidden agreements between hospitals and medical equipment companies, and creating an induced demand are only a few of the damaging behaviors of service providers in implementing TAVPA. Many participants believed these challenges are a result of the dual role of the Ministry of Health in service provision and service purchasing.

Today, traffic accidents are the primary cause of mortality in Iran, but basic health insurance organizations in Iran have no role in TAVPA fund accumulation and do not control the way that services are provided (22). Because of the complex process of determining eligibility for TAVPA funds, the delays in repayment of costs and the resulting tendency of hospitals to record victims as non-traffic accidents, people often use their own basic insurance card for services. The challenges described above have led to two points of view about who is responsible for financing the services of Article 92: first, continuing the current trend in which the Ministry of Health provides the financing and delivery of TAVPA services, and second, shifting the financing of TAVPA services to basic health insurance organizations.

Importantly, these points of view had both defenders and detractors among different groups of experts. Defenders of the provision of TAVPA finances by the Ministry of Health believe that if basic insurance was responsible for covering the treatment expenses of traffic accident victims, insurance companies would need to find the liable party in an accident in order to receive compensation, even though the aim of Article 92 is to provide immediate services for victims without any preconditions.

Defenders of other points of view believe that because of poor supervision in the current process of TAVPA implementation, difficulty in proving a patient is a traffic accident victim, delays in the reimbursement of patient costs by the Ministry of Health, and patients' unawareness of their rights under TAVPA, hospitals prefer to use accident victims' insurance cards. Under such conditions, health insurance will lose. Thus, it is better for insurance companies to receive 10% of third-party premiums and finance all traffic accident victims' services.

In applying the results of this study, its limitation should be considered. Most participants have accepted their organizational status, and it is expected that interviewees, especially managers and policy-makers, may answer questions based on their job position. This matter is a part of qualitative studies and is unavoidable. Thus, researchers should be cautious in analyzing the results of each interview.

Conclusions

Based on the findings of the present study, it can be concluded that the insurance umbrella created for traffic victims by the adoption of Article 92 has created good opportunities for them and other stakeholders. Accompanying these opportunities, however, challenges have also been raised which need to be addressed. The following suggestions for ways to face these challenges are made based on the results of the current study:

- continuing the current trend in which the Ministry of Health finances and delivers TAVPA services, or shifting the financing of TAVPA services to basic health insurance organizations;
- substituting hybrid payment systems;
- formulating service packages for Article 92 victims, and
- Applying strong oversight to improve service quality.

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Authors' Contribution

All authors pass the four criteria for authorship contribution based on the International Committee of Medical Journal Editors (ICMJE) recommendations.

Conflict of Interests

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