

## The Quality of Public Facilities for the Disabled, Sari, Iran, 2010

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### 1 ABSTRACT

**Purpose:** Providing suitable facilities for persons who has moving disability and have to use wheelchairs, is mandatory by the law, which has been published in 2004. The responsible persons of all community service buildings are obliged to provide minimum standards for convenient access and use for the handicapped. In this study the community service places of Sari, were evaluated.

**M&M:** This was a cross-sectional study done in 2010. Buildings were randomly selected when there were many samples, however, all were assessed if were unique or less than 4. A checklist was developed according to governmental standards. Content validity was obtained by consultation with experts and consumers. Reliability was tested by the "test-re-test" method (using Pearson correlation Coefficient,  $r = 0.77$ ).

Two hundred and twelve buildings in 5 categories (health care, community service, educational, residential, leisure activities) were assessed by 11-20 items regarding the function and services to provide. The included items were: inspection, presence of ramp, sliding door, lift, handicap sign, reserved parking place, washing sink, suitable bathroom, toilet, special mattress, height adjustable bed. Scales for evaluation were as; existed as standard, existed but not as standard, and not existed. The administrative asked if there was routine inspection visits by responsible bodies. Data entered the SpSS (16) software to analyze data.

**Results:** Seventy five health centers (hospital/clinic/physiotherapy/radiology/pharmacy), 82 community service buildings (bank, post office, registry office), 35 educational buildings, 8 residential buildings (hotels, sanatorium), 16 entertaining/leisure places (cinema, park, restaurant, gymnasium) were evaluated. Routine periodic and formal administrative inspections were hardly performed for evaluated facilities.

In most centers there were not any standard slopes. In almost all above-mentioned centers, there were no signs, parking space, and even restrooms dedicated to handicapped. Only 8 % of facilities for community services, 12.5 % of residential buildings and 3 % of health centers had standard slope. There were not suitable beds and bathrooms in hotels.

**Conclusion:** Despite the existence of law in the country and international standards, almost all basic community buildings are unsuitable for the disabled people, yet they are not under routine surveillance. Planning for correct performance of laws is necessary and essential.

### 2 INTRODUCTION

One of the main concerns of wheelchair users are entering to the public buildings/facilities such as; hospitals, clinics, laboratories and so on. Many of these people are not intellectually disabled and like healthy individuals need to participate in social activities. Access to banks, hotels, and leisure places are also important. Frustrations to participate in common activities reduce their self-esteem and aggravate destructive feelings of incompetency and depression, leading to deeper isolation (1). There are international and national legislations and codes for the disabled or persons with special needs, however, new emerging situations and issues need periodic assessment and revision of these codes (2-7). The convention of the rights of persons with disabilities and its optional protocol was adopted on 13 December 2006 at the United Nations. Since March 2007 countries started to sign and join. Islamic Republic of Iran ratified the Convention in 2009 (8). In this study, public buildings in one of the northern cities of Iran were assessed with the latest national code for the disabled.

### 3 MATERIAL & METHODS

This was a cross-sectional study. Governmental and private buildings for public services were selected randomly and assessed by a checklist created by consulting the experts and according to the national codes. The number of items to access was different according to type of services to fulfill. Educational buildings

had 8 items for inspection. Residential places had 10 and leisure places had 8 items to be assessed. Eleven items, which were absolute mandatory to comply, were; appropriate entrance/doors, sloped surfaces, lifts, parking places, signs for disabled, appropriate sanitary facilities, bed and mattresses. Formal and regular inspections were inspected according to standards and scored as "existed as the standard", "existed but not as standard" and "not existed". Reliability of the checklist was examined by retesting the 5 random selected places in 2 weeks time (Pearson Correlation Coefficient,  $r = 0.7$ ). The owners or top administrators of the buildings were informed just before the inspection. Data were processed by Spss(16).

#### 4 RESULTS

Two hundred and twelve places including: 82(39 %) governmental or private buildings for community services (bank, post office...), 75(35 %) health related buildings (hospital, clinic, pharmacy, imaging center, physiotherapy center), 31 (15 %) educational (library, university...), 16(7 %) leisure places (restaurant, cinema, park) and 8(4 %) hotels were assessed. Tables 1- 5 show the data. A vast majority of important and vital to access places had inappropriate entrances. About 95 % of the buildings dedicated to health related services had inappropriate sanitary services for the disabled. Almost none of the places had any kind of inspection for appropriateness of services for the disabled.

Building category Items	Inspection No.(%)		Handicap sign No.(%)			Parking No.(%)		
	No	Yes	Not existed	Not standard	standard	No	Not standard	standard
Existed								
Educational	31(100)	0(0)	31(100)	0(0)	0(0)	31(100)	0(0)	0(0)
Health care related:	71(95)	4(5)	73(98)	1(1.5)	1(1.5)	72(96)	2(2.7)	1(1.3)
1-Hospital	9(100)	0(0)	8(89)	0(0)	1(11)	8(89)	0(0)	1(11)
2-Other health care centers	44(92)	4(8)	47(98)	1(2)	0(0)	46(96)	2(4.2)	0(0)
3-Pharmacy	18(100)	0(0)	18(100)	0(0)	0(0)	18(100)	0(0)	0(0)
Community services: with	82(100)	0(0)	82(100)	0(0)	0(0)	81(99)	1(1)	0(0)
1-Elevator								
2-Washing sink & toilet								
3- Elevator & W.C						25(96)	1(4)	0(0)
4-Other centers								
Residential	8(100)	0(0)	8(100)	0(0)	0(0)	8(100)	0(0)	0(0)
Leisure places	16(100)	0(0)	16(100)	0(0)	0(0)	15(94)	1(6)	0(0)

Table 1: The distribution of public buildings regarding existence of the essential needs for handicapped, Sari, 2010

Building category Items	Ramp No.(%)			Elevator No.(%)			Sliding door No.(%)		
	No	Not standard	Standard	No	Not standard	standard	No	Not standard	standard
Existed									
Educational	20(64.5)	11(35.5)	0(0)	14(54)	12(46)	0(0)	0(0)	27(87)	4(13)
Health care related:	54(72)	19(25)	2(3)	33(61)	19(35)	2(4)	0(0)	73(97)	2(3)
1-Hospital	0(0)	8(89)	1(11)	0(0)	7(87)	2(22)	0(0)	9(100)	0(0)
2-Other health care centers	36(75)	11(23)	1(2)	31(72)	12(28)	0(0)	0(0)	47(98)	1(2)
3-Pharmacy	18(100)	0(0)	0(0)	0(0)	2(100)	0(0)	0(0)	17(94)	1(6)
Community services with:	58(71)	17(21)	7(8)	21(58)	14(39)	1(3)	0(0)	66(80.5)	16(19.5)
1- Elevator	8(73)	1(9)	2(18)	8(80)	2(20)	0(0)	0(0)	9(82)	9(82)
2-Washing sink & toilet	5(84)	1(16)	0(0)	0(0)	0(0)	0(0)	0(0)	5(83)	5(83)
3- Elevator & W.C	4(16)	11(42)	11(42)	13(50)	12(46)	1(4)	0(0)	17(65)	17(65)
4-Other centers									
Residential	1(12.5)	6(75)	1(12.5)	6(86)	1(14)	0(0)	0(0)	7(87.5)	1(12.5)
Leisure places	8(57)	6(43)	0(0)	7(78)	2(22)	0(0)	0(0)	13(93)	13(93)

Table 2: The distribution of public buildings regarding existence of the essential needs for handicapped, Sari, 2010



Building category Items	Washing sink No.(%)			Toilet No.(%)			Bathroom No.(%)		
	No	Not standard	Standard	No	Not standard	standard	No	Not standard	Standard
Existed									
Educational	30(100)	0(0)	0(0)	24(80)	6(20)	0(0)	**	*	*
Health care related:	54(95)	3(5)	0(0)	50(88)	6(10)	1(2)			
1-Hospital	8(89)	1(11)	0(0)	5(56)	3(33)	1(11)	6(67)	3(33)	0(0)
2-Other health care centers	46(96)	12(4)	0(0)	45(94)	3(6)	0(0)	*	*	*
3-Pharmacy	*	*	*	*	*	*	*	*	*
Community services with:									
1- Elevator									
2-Washing sink & toilet	6(100)	0(0)	0(0)	6(100)	0(0)	0(0)	*	*	*
3- Elevator & W.C	25(96)	1(4)	0(0)	24(92)	2(8)	0(0)			
4-Other centers									
Residential	5(62.5)	3(37.5)	0(0)	5(62.5)	3(37.5)	0(0)	5(62.5)	3(37.5)	0(0)
Leisure places	16(100)	0(0)	0(0)	16(100)	0(0)	0(0)	2(100)	0(0)	0(0)

Table 3: The distribution of public buildings regarding existence of the essential needs for handicapped, Sari, 2010

\*Not applicable

Building category Items	bed No.(%)			Special mattress No.(%)		
	No	Not standard	Standard	No	Not standard	standard
Existed						
Educational *	*	*	*	*	*	*
Health care related:	49(86)	6(10.5)	2(3.5)			
1-Hospital	3(33)	5(56)	1(11)	0(0)	0(0)	9(100)
2-Other health care centers	46(96)	1(2)	1(2)	*	*	*
3-Pharmacy	*	*	*	*	*	*
Community services with:	*	*	*	*	*	*
1- elevator						
2-Washing sink & toilet						
3- Elevator & W.C						
4-Other centers						
Residential	0(0)	8(100)	0(0)	*	*	*
*Leisure places	*	*	*	*	*	*

Table 4: The distribution of public buildings regarding existence of the essential needs for handicapped, Sari, 2010

\*Not applicable

Building category Items	Score	
	Ideal	Achieve
Existed		
Educational	15	1- 6
Health care related:		1-8,10 -11,13
1-Hospital	21	
2-Other health care centers	17	
3-Pharmacy	9	
*Community services with:		1-6
1- elevator	11	
2-Washing sink& toilet	13	
3- Elevator & W.C	15	
4-Other centers	9	
Residential	19	2 -3,5 -7
Leisure places	15	0-3

Table5: The distribution of public buildings regarding existence of the essential needs for handicapped, Sari, 2010

## 5 DISCUSSION

The study showed that 10 years after the distribution of regulations of appropriateness of buildings for the disabled, even newly constructed buildings lack the minimum mandatory items (9). Another essential need to move easily from home or other places is suitable public transport vehicles such as buses, subways and similar facilities, which we did not look for them. These people need to access places for treatment and rehabilitation services but it is not their only right. In some developed countries old and vulnerable buildings such as museums and memorial monuments are being changed so everyone could enjoy the benefits of educational or cultural opportunities (10-11). Wheelchair users, blind or deaf handicapped can visit even historical places. It has been recommended that the main entrance should be changed for the use of everybody so the dignity of the disabled is not attacked. If it is not possible the entrance should be in the nearest position, not at the rear of the building (12). Many citizens are not "disabled" by definition but have musculoskeletal disorders or are just old, pregnant or using a stroller." Universal design" is defined as the design of products and environments that are usable by all people (13). It is not hard to imagine how embarrassing is for old people to be carried up several stories to sign a document or for similar matters. Tourism is a very important business in most countries and one of the main reasons to be popular is the degree of feeling safe and comfortable. Istanbul was the "cultural capital of Europe in 2010". Evcil et al in a study in 2009 by using adapted Useh, Moyo and Munyonga questionnaire reported difficulties for the disabled, 79 % of entrances were not suitable for the passage of a wheelchair (14). Bromely et al interviewed 150 handicapped in the UK . More than 60 % expressed that they were not feeling comfortable moving about. Newer shopping centers have standard facilities for wheelchair users and other disabled people but still crowded streets and old pavements have problems (15). Owners of these old buildings do not bother to change the situation, because constructive changes and its maintenance are costly. Providing loans or subsidized services or consultations may help owners to bear the costs. Without a formal inspection and appropriate fines for not complying with the law, there is a state of ignorance. Even in obvious and self-beneficial matters such as personal hygiene and safety. There are soft wares like AMELIA (A Methodology for Enhancing Life by Increasing Accessibility) that are being developed to test the extent to which transport policies can increase social inclusion. (16). In conclusion we recommend to provide the minimum facilities for old/ disabled or people in buildings especially for community services as an emergency need. Also for newer buildings that are to be constructed, all standard measures should be met before the warrant for construction is issued. Furthermore authorities should consider "sport and cultural events" as opportunities to invest in providing these standards for public places.

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