



# COVID-19: Infection Control Strategy and Public Health Awareness for Disabled Individuals in Turkey

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As the COVID-19 pandemic is about to complete its first year, more than 70 million people have been diagnosed with the disease, and more than 1.5 million have died (1). The pandemic has had profound impacts not only on the health systems of numerous countries but also on their economies and social structures. Over time, it was observed that the course of the disease was more severe and the mortality rate higher in some risk groups; outcomes were especially worse among the elderly and among persons with comorbidities.

It was also revealed that the adverse effects of the epidemic were more intense in areas characterized by poor markers for social determinants of health (2). Outcomes have been worse for persons of low socioeconomic status living under conditions such as homelessness, crowded communities, limited access to food, and poor sanitation. Additionally, ongoing research is revealing that disabled individuals are a risk group, more affected by COVID-19 than the general population (3, 4).

## COVID-19 Risks for Disabled Populations

On a global scale, more than one billion people –roughly 15% of the world’s population–have at least one type of disability, including 40% of the elderly population ( $\geq 65$ ). One of every five women has a disability, and one of every ten children is disabled. One hundred ninety million (3.8%) persons aged 15 and over have difficulty performing any bodily function and require health care services, and 80% of this population lives in developing and under-developed countries. This fact magnifies the social and economic dimensions of the problem. In particular, the numbers of disabled persons worldwide have increased significantly owing to accidents, disasters, wars, environmental pollution, and demographic trends in chronic health conditions. In response to the increased impacts of COVID-19 among the disabled, Human Rights Watch called for protecting disability rights during the pandemic. Jane Buchanan, deputy director of disability rights, stresses the importance of the issue as follows:

“People with disabilities are among the world’s most marginalized and stigmatized, even under normal circumstances. Without swift action by governments to include people with disabilities in their response to COVID-19, they will remain at serious risk of infection and death as the pandemic spreads” (5).

Today, most of the world’s population is at risk for experiencing some kind of disability in their lives whether temporary or permanent (6). The greater impacts of COVID-19 in the disabled population relate to three major disease-related risks discussed below.

### 1 People with disabilities have a higher risk of contracting COVID-19

Disabled persons can find it difficult to follow basic protection measures such as hand washing, wearing masks, and keeping physical distance. They can face obstacles such as lack of accessible water and sanitation and hygiene facilities exclusively for disabled people as well as simply living in overcrowded and unhealthy institutional environments. In particular, workers in facilities such as nursing homes can easily transmit COVID-19 because providing care often requires close physical contact with patients. Persons living in nursing homes and private institutions can face serious difficulties in taking basic hygiene measures and complying with physical distance recommendations (7, 8).

### 2 People with disabilities have a higher risk of suffering and dying from COVID-19

Although persons with intellectual and developmental disability (IDD) represent a smaller proportion of individuals with disabilities (10.37/1,000), they constitute the group at highest risk for serious health outcomes of COVID-19. In a study of deaths attributed to pneumonia prior to the COVID-19 outbreak, the mortality rate was 2 to 6 times higher in people with IDD than in persons without this disability. In one study, the COVID-19 case

**Cite this article as:**  
Metintaş S. COVID-19:  
Infection Control Strategy  
and Public Health  
Awareness for Disabled  
Individuals in Turkey.  
Erciyes Med J 2021;  
43(4): 315-7.

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**Submitted**  
17.12.2020

**Accepted**  
08.01.2021

**Available Online**  
01.03.2021

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University Faculty of Medicine -  
Available online at  
www.erciyesmedj.com

fatality rates among people with IDD were reported to be 1.6% and 4.5% higher in the 0–17 and 18–74 age groups, respectively, than the rates in the non-mentally disabled group (<0.1% and 2.7%). Among people with IDD, specific comorbidities such as hypertension, heart disease, respiratory disease, and diabetes, which have been identified as risk factors for poor COVID-19 outcomes, have been found with a relatively high frequency (9). Spinal cord injury is another disability that places individuals at higher risk of morbidity related to COVID-19. These injuries frequently entail with respiratory muscle (diaphragm and intercostal muscles) weakness, poikilothermia, and impaired cough reflex in addition to a wide range of other physiological changes depending on the severity of neurological injury (10).

Morbidity and mortality are also higher among people with disabilities because of lack of access to life-saving procedures during the pandemic. In some countries, treatment decisions including triage protocols (e.g. intensive care beds, ventilators) are based on discriminatory criteria such as disability-based quality of life, age, and so on rather than on individual prognoses. Decisions related to health care overall including rehabilitation, and assistive technologies for people with disabilities are being driven by increasing pressures on health systems, including accessibility and pricing (11).

### 3 Disabled individuals face socioeconomic disadvantages related to COVID-19

In a rapidly evolving pandemic, people need to have a good understanding of how to protect themselves and how they can access services during the quarantine, and this has been especially true with COVID-19. The general lack of access to accurate information is compounded in disabled populations by discrimination, less access to social and health services, and lack of education. Giménez et al. (2010) (12) demonstrated that an outbreak of H1N1 infection among institutionalized patients with intellectual disability led to a high mortality rate because a low vaccination rate.

Additionally, policies that require social isolation such as quarantine to prevent the spread of coronavirus are problematic for many people and worrying for people with psychosocial disabilities such as anxiety and depression. Additional mental health support might be required. Some mentally disabled patients with autism or attention deficit hyperactivity disorder who face limitations in their physical environments can show worse symptoms and impacts when they cannot perform their usual routines (13).

Government policies should include practices and rules that will ensure the continuation of community-based services that enable disabled persons to live safely in their environments, including ensuring that crisis counseling programs are accessible to all. Maintaining uninterrupted community-based services can keep disabled and older adults out of institutions where disease risks are so high (14).

In many countries, children with disabilities experience difficulties in accessing high-quality education even during regular times. When governments close schools, most educational institutions implement online education, but this support is not always a possibility for children with disabilities. Without government support, parents and care workers can find it challenging to replace the services that children with disabilities receive in schools.

### COVID-19 and the Disabled in Turkey During the Pandemic

Government institutions in Turkey have provided ambiguous information about the disabled population. In a 2002 Turkish Statistical Institute disability survey, the country's disabled population comprised 8,431,937 persons, 12.29% of the Turkish population. In a 2011 survey, 6.9% of the population aged three and over (4,876,000 people) had at least one disability. The National Disability Data System, which is based on disability health board reports 2,529,701 disabled persons, but the system does not cover all disability groups (14). Since the first case in Turkey related to COVID-19 was reported on March 11, 2020, the Turkish government has taken a number of special measures as follows (15).

- 1 The Ministry of Health prepared guidelines to be followed in nursing homes for the disabled and the elderly within the framework of the rules declared by the WHO, CDC, and E-CDC. The Ministry made the decision that fever and other symptoms among residents of care homes for the disabled and elderly should be monitored four times a day. The guidelines also mandated that live-in nursing home staff switch to a 7–10 shift system on March 26, 2020. As the pace of the pandemic increased, the shift period was extended to 14 days on April 7, with staff members undergoing PCR COVID-19 testing during shift changes. Elderly and disabled patients with complaints were sent to the hospital immediately, and companions accompanied mentally disabled persons to stay with them in the hospital. Isolation institutions were established for these patients where they quarantined for 14 days, with care workers and nursing support provided, before they returned to their institutions.
- 2 The government expanded the availability of COVID-19 information that was accessible to hearing and visually impaired individuals. For instance, the Ministry arranged for sign language translations of 36 information guides that had been prepared by public institutions and organizations from the Ministry of National Education EBA TV curriculum. The Ministry also prepared unique videos on COVID-19.
- 3 Turkey's Ministry of Health also implemented the VEFA Social Support Program to provide social support for disabled and older people during the community quarantines. When the government prohibited individuals aged 65 and over and residents with chronic diseases from leaving their homes, VEFA social support groups provided continuing services to any citizens who requested them. The groups met ongoing basic needs in provinces and districts across the country.
- 4 The Ministry determined that disabled employees should be considered on an administrative holiday as the epidemic was reaching its peak.
- 5 Individuals with chronic disease and disability reports were allowed to get their medicines from the pharmacy without seeing doctor.
- 6 The government provided ongoing psychosocial support activities during the quarantine periods.
- 7 A team of volunteers developed a novel mobile application to support children with autism and other special needs and their families during their stay at home: "Even our citizens living abroad have had the opportunity to benefit from the system" (Ministry of Health, General Directorate of Health Information Systems, 2020).

Every emergency requires scientific data to address the needs of high-risk populations, highlight who is at most notable risk, target response strategies, and then monitor the effectiveness of interventions. In cases of infectious diseases, it is reasonable to expect that vulnerable people such as the elderly and disabled will remain isolated, possibly for extended periods, to reduce the spread of infection. Careful policy planning is necessary that emphasizes meaningful social interactions as part of maintaining the best public health and well-being possible.

**Peer-review:** Externally peer-reviewed.

**Conflict of Interest:** The author have no conflict of interest to declare.

**Financial Disclosure:** The author declared that this study has received no financial support.

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