

# Research in Brief



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## Self-management of Chronic Conditions and Unmet Health Care Needs among Hypertensives and Diabetics in a Time of Covid-19

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### Introduction

The covid-19 pandemic has affected people's health and health care use on an increasing scale for over two years since its outbreak in 2020. During the height of the pandemic, health resources were deployed in a concentrated way for the diagnosis and treatment of covid-19 patients. Individuals on their part saw their ability to pay for health care decline as they suffered income loss as a consequence of the restrictions imposed on their economic activities. Fear of covid-19 infection, a psychological factor known to reduce compliance among patients with their health care needs, has led people to forgo receiving services at a health care institution or picking up prescription medications at a pharmacy, as reported in Anderson et al.<sup>1)</sup>(2021) as well as in this study.

People with chronic conditions need to draw on health care on a continuous basis. They are of particular concern, for their conditions are such that it is as unallowable to set aside their health care needs in a time of infectious disease as in normal times. It is essential that hypertensives and

1) Anderson, K. E., McGinty, E. E., Presskreischer, R., & Barry, C. L. (2021). Reports of Forgone Medical Care Among US Adults During the Initial Phase of the COVID-19 Pandemic. *JAMA Netw Open*, 4(1), e2034882. doi:10.1001/jamanetworkopen.2020.34882

diabetics comply to their health care needs and get continued care especially in order to protect themselves from complications like myocardial infarction and stroke.

This brief examines the state of health care use, disease management, and delayed or forgone health care during the covid-19 pandemic as reported by hypertensives and diabetics. The survey on which this study is based was conducted during the period August 3~19 of a total of 1,500 adults aged 19 and older including 500 hypertensives and diabetics. The respondents were asked in the phone survey about the status of their health, unmet health care needs, and disease management.

## Healthcare use among hypertensives and diabetics

Of a total of 406 hypertensives who had been on outpatient treatment for hypertension in 12 months preceding the survey, 8.1 percent reported having delayed or forgone at least one outpatient visit; 5.4 percent of a total of 187 diabetics reported delaying or forgoing at least one outpatient visit in the same period. Eleven of those 33 hypertensives and five of the 10 diabetics who had delayed or forgone outpatient visits attributed their such decisions to fear of covid-19 infection. In an attempt to limit contact between doctors and patients, the government in 2020 had allowed patients to receive telephone consultation and prescription services and to get someone else to collect prescription medications as needed. However, as few as 4.2 percent of the hypertensives and 3.2 percent of the diabetics were found to have received care via telemedicine.

[Table 1] South Korean nongovernmental organizations with their assistance projects approved by the UNSC 1718 Committee (in effect as of June 2021)

		Hypertensives(N=406)		Diabetics (N=187)	
		Number	%	Number	%
<b>Ever delayed or forgone an outpatient visit?</b>	No	373	91.9	177	94.7
	Yes	33	8.1	10	5.4
<b>Reasons for having delayed or forgone outpatient care</b>	To reduce the risk of getting a covid-19 infection	11	33.3	5	50.0
	Because of income loss due to covid-19	3	9.1	-	-
	Because asked to do so by the health institution	2	6.1	1	10.0
	The appointment did not match my schedule	11	33.3	4	40.0
	Other	6	18.2	-	-

<b>Ever had received telemedicine services</b>	No	389	95.8	181	96.8
	Yes	17	4.2	6	3.2
<b>Type of telemedicine</b>	Telephone consultation service	14	82.4	5	83.3
	Other	3	17.7	1	16.7

Source: E.J., Park et al. Medical Service Use and Medication Use During Covid-19 Pandemic: Focused on Unmet Needs (2021). Korea Institute for Health and Social Affairs.

## Use of prescription medications and management of hypertension and diabetes

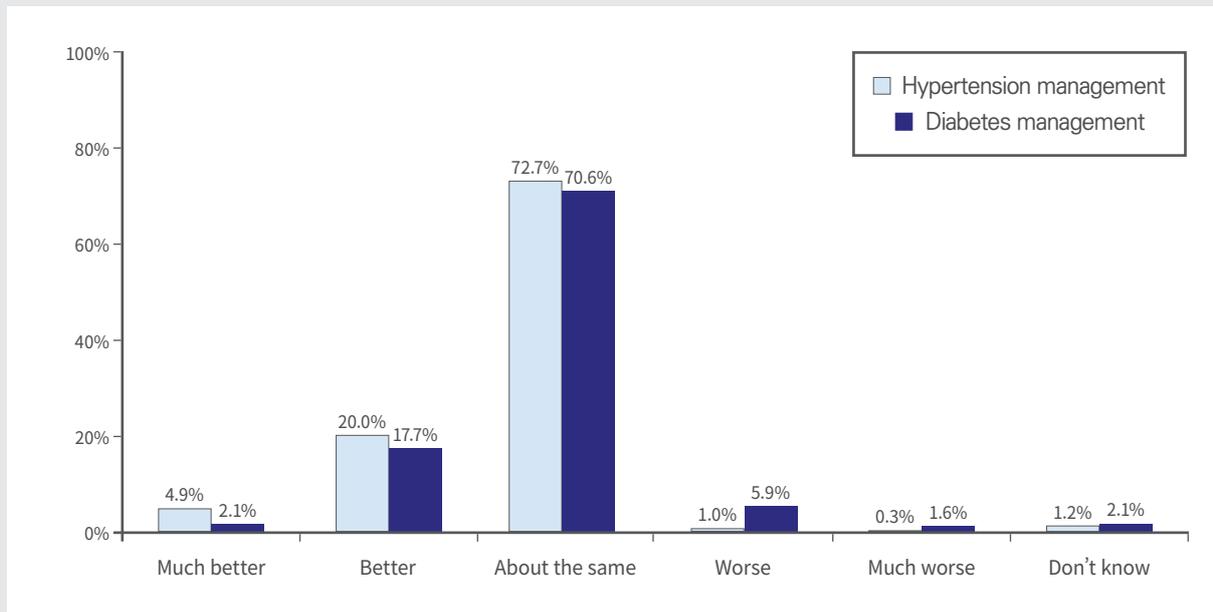
As many as 92.6 percent of the hypertensives and 96.8 percent of the diabetics reported taking their prescription medications during the covid-19 pandemic in the same way they had before the pandemic. As many as 97.6 percent of the hypertensives and 90.4 percent of the diabetics believed that the self-management of their conditions remained the same or turned for the better since the covid-19 pandemic (see Figure 1). Those among the diabetics who reported a worsening of the self-management of their conditions attributed it to reduced amount of physical activity, lack of effective dietary planning, and delay or avoidance of health care use.

[Table 2] Changes since the covid-19 pandemic in the way hypertensives and diabetics take their prescription medications

	<b>Hypertensives(N=406)</b>		<b>Diabetics (N=187)</b>	
	<b>Number</b>	<b>%</b>	<b>Number</b>	<b>%</b>
<b>I take the medications the same way I did before the pandemic.</b>	375	92.6	181	96.8
<b>I have had my prescription duration extended.</b>	22	5.4	8	4.3
<b>I have often missed taking my prescription medications or had reduced doses.</b>	9	2.2	3	1.6
<b>I have had missed picking up prescription medication from a pharmacy.</b>	7	1.7	1	0.5
<b>I don't know.</b>	2	0.5	1	0.5

Source: E.J., Park et al. Medical Service Use and Medication Use During Covid-19 Pandemic: Focused on Unmet Needs (2021). Korea Institute for Health and Social Affairs.

[Figure 1] How would you rate the management of your hypertension or diabetes after covid-19 compared to before the pandemic?



Source: E.J., Park et al. Medical Service Use and Medication Use During Covid-19 Pandemic: Focused on Unmet Needs (2021). Korea Institute for Health and Social Affairs.



## Unmet health care

Over 90 percent of the hypertensives and diabetics received outpatient care continuously as needed. However, one in every six of those patients reported unmet needs for medical or dental care. The prevalence of unmet care needs was significantly higher in hypertensives and diabetics (17.1 percent for medical care and 19.2 percent for dental care) than in people without chronic conditions (12.1 percent for medical care and 15.3 percent for dental care), as shown in Table 3.

[Table 2] Changes since the covid-19 pandemic in the way hypertensives and diabetics take their prescription medications

	Medical care		Dental care			
	Hypertensives and diabetics	Hypertensives, diabetics and those with other chronic conditions	People with no chronic conditions	Hypertensives and diabetics	Hypertensives, diabetics and those with other chronic conditions	People with no chronic conditions
All	17.1	18.9	12.1	19.2	24.4	15.3
Sex						
Men	15.1	13.4	10.6	15.9	20.3	14.0
Women	21.1	23.2	13.7	25.9	27.5	16.6
Age						
19~39	27.8	31.3	12.2	31.3	35.5	14.9
40~64	19.7	20.9	13.6	20.3	26.8	15.9
65~74	16.0	13.0	7.9	17.9	20.6	16.7
75+	6.8	10.0	0.0	15.1	10.0	8.3

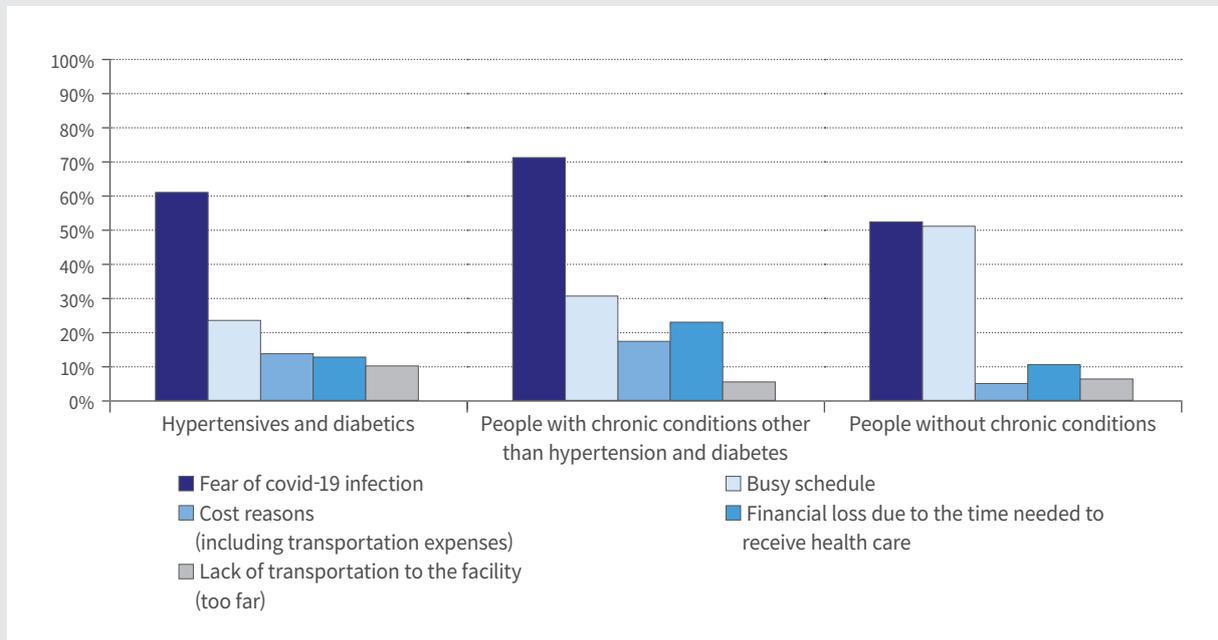
Source: E.J., Park et al. Medical Service Use and Medication Use During Covid-19 Pandemic: Focused on Unmet Needs (2021). Korea Institute for Health and Social Affairs.

The most often cited reason in those with hypertension and diabetes for missing needed health care services was fear of covid-19 infection: 62.7 percent of the respondents with hypertension or diabetes who reported having delayed or forgone medical care services pointed to fear of covid-19 infection as the reason for their missing care; 54.3 percent of the hypertensives and diabetics who reported delaying or forgoing healthcare attributed their missing out care to fear of covid-19 infection. Those without any chronic conditions who reported having delayed or forgone health care attributed their missing outpatient care to “fear of covid-19 infection” (53.4 percent) and to “being unable to take enough time out to receive health care” (52.1 percent).

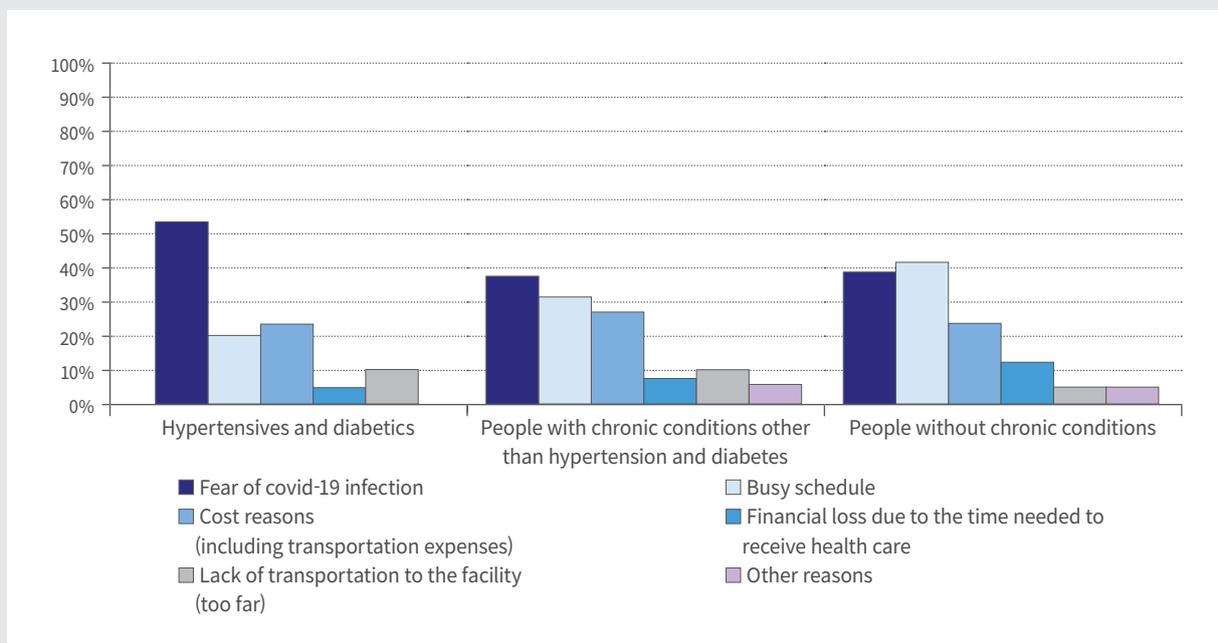
Of those with hypertension and diabetes who reported having unmet medical care needs, 10.8 percent reported unmet needs for hospitalization and surgical services; 9.8 percent of the patients with chronic conditions other than hypertension and diabetes who reported to have had unmet needs for medical care reported that their unmet needs were for hospitalization and surgical services.

[Figure 2] Reasons for unmet health care needs as cited by people with and without chronic conditions

A. Unmet medical care needs



B. Unmet dental care needs



Source: E.J., Park et al. Medical Service Use and Medication Use During Covid-19 Pandemic: Focused on Unmet Needs (2021). Korea Institute for Health and Social Affairs.



## Concluding remarks

It has been reported that health care use at large has decreased since the onset of the covid-19 pandemic. This study found that people with hypertension and diabetes to have taken prescription medications, and received their needed health care services, as steadily during the pandemic as before. As few as 8.1 percent of hypertensives and 5.4 percent of diabetics reported having forgone or delayed outpatient care in the 12 months preceding the survey. However, with 17.1 percent of hypertensives and diabetics reporting unmet medical care needs, and 19.2 percent reporting unmet dental care needs, a substantial share of people with those chronic conditions were presumed to have missed some of the health care services (including medical checkups) they needed to receive to prevent themselves from developing complications. In addition, 13.2 percent of people with hypertension or diabetes reported their health to be worse than it was before the pandemic, with the main reason cited for the declined health level being their deteriorated disease management (including declined physical activity). Also, 62.7 percent of the hypertensives and diabetics who reported having unmet needs for medical and dental care cited fear of covid-19 infection as the reason for their having missed health care services when needed. The effect of the anxiety factor, which has left many patients out of compliance to their health care needs, looms large especially in Korea, where, unlike in the UK and the US, most health institutions kept their outpatient services as much open during the pandemic as in normal times.

When an infectious disease is prevalent, telemedicine can be put to use to keep patients compliant with their health care needs. However, as it turned out, only 4.2 percent of hypertensives and 3.2 percent of diabetics reported having been treated through telemedicine during the covid-19 pandemic.

People with chronic conditions like hypertension and diabetes could run the risk of developing complications such as stroke and of deteriorating health, if their health care needs are unmet. There is a need for policies that support and lead people with chronic conditions to actively manage their conditions, as taking prescription medications does not alone suffice for proper management of chronic illness. Since 2020, chronic illness management programs have been put to a halt in public health centers in a substantial number of municipalities. Consumer use of indoor physical activity facilities has been restricted. Given the current state of the pandemic, the national government and municipalities now need to resume their chronic conditions management programs and flexibly ease the restrictions they had imposed on physical activity facilities. It is necessary for those in health care professions to check the health issues their patients have and provide them with the right information, helping them reduce their fear of covid-19 and use needed health care services. Vulnerable to covid-19, hypertensives and diabetics need increased support in the management of their conditions, as complications in these patients, if they occur, could well put an extra burden of expenditure on society. For example, support may be considered for hemoglobin tests and screening for diabetic ophthalmological complications.