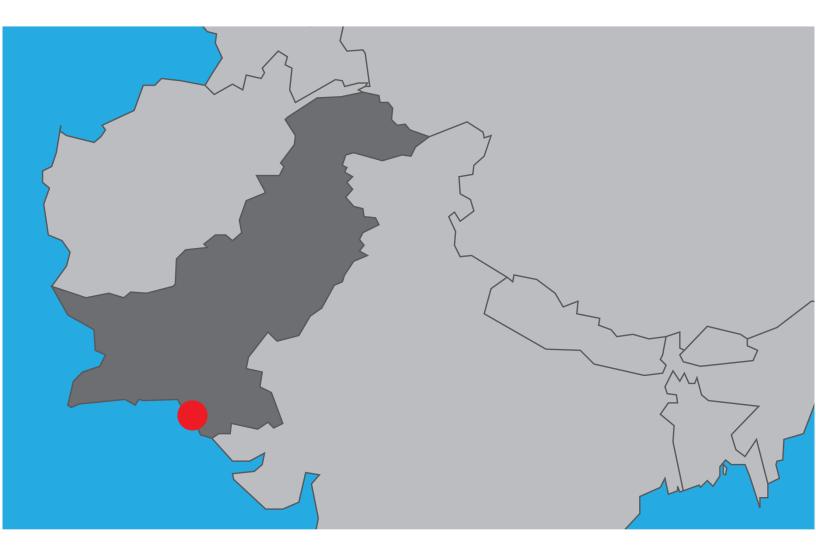


Institute for Global Tobacco Control

Technical Report on Compliance with the Smoke-free Policy in Karachi, Pakistan

Technical Report



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Table of Contents

Exe	cutive Summary
Ι.	Introduction
II.	Methods
III.	Results
	Public service vehicles
	Restaurants19
	Educational institutions22
	Health facilities2
	Government offices
	Amusement centers
	Banks
	Hotels
	Sports facilities42
IV.	Discussion4
v.	Limitations
VI.	Conclusions
Refe	erences

Executive Summary

In 2002, the Government of Pakistan passed the national tobacco control law, "Prohibition of Smoking in Enclosed Places and Protection of Non-smokers Health Ordinance", which bans smoking in all places of public work and use.¹ The Institute for Global Tobacco Control (IGTC) at the Johns Hopkins School of Public Health (JHSPH), in collaboration with the International Union Against Tuberculosis and Lung Disease (The Union), assessed compliance with this ordinance in Karachi, Pakistan. This technical report summarizes the results from the observational study and also includes recommendations on how to improve smoke-free compliance in Karachi.

The East and South districts in Karachi were selected as the study areas. Venues observed included amusement centers, banks, educational institutions, government offices, health facilities, hotels, private offices, public service vehicles, restaurants, and sports facilities. These venue types were chosen based on recommendations from The Union, the Ministry of National Health Services, Regulations and Coordination (MNHSR&C), and previous smoke-free compliance studies conducted in Islamabad and Punjab.

Smoke-free observations: Observations were conducted in Karachi between October and December 2019. Trained data collectors observed 1,704 public venues across the East and South districts of Karachi for evidence of smoking (observed smoking, presence of cigarette litter and presence of ashtrays or similar instruments used to hold cigarette ash/butts) as well as the presence, location and content of no-smoking signage. The composite indicator assessing evidence of smoking is comprised of the following three measures: observed smoking, presence of cigarette butt litter, and presence of ashtrays (or similar instruments). A venue was considered compliant with the composite indicator if: 1) no one was observed smoking, 2) no cigarette butt litter was found, and 3) no ashtrays or other similar instruments were found. Data were analyzed by IGTC staff using descriptive statistics.

Evidence of smoking was found in all venue types observed across both districts. In both districts, compliance with the composite indicator assessing evidence of smoking was lowest among amusement centers, which included amusement parks, cinemas, faculty of arts, shopping centers, and snooker clubs. Among the public service vehicles observed, all taxis (100%) and 70% of buses were compliant. Only 30% of all amusement centers observed, in each district, were compliant. Among amusement centers in the East district, 34% of shopping centers and 15% of snooker clubs were compliant. Among amusement centers in the South district, 30% of shopping centers were compliant.

Compliance with the composite indicator assessing evidence of smoking was also poor in restaurants, which included bakeries, cafes, pan/tea shops, and dine-in restaurants. Less than half of all restaurants in the East (36%) and South (48%) districts were compliant. In the East district, compliance was especially low among cafes (17%) and pan/tea shops (14%); only 26% of pan/tea shops in the South district were compliant.

Less than half of all government offices in the East (49%) and South (45%) districts were compliant. In the East district, none (0%) of the Union Council offices, half (50%) of the district courts and Ministry of Sindh offices, and less than half of all NADRA offices (38%) and post offices (40%) were compliant. In the South district, none (0%) of the district courts, half (50%) of all Government Official and Ministry of Sindh offices, and less than half of all police stations (33%) and post offices (42%) were compliant.

Across both districts, compliance with the composite indicator assessing evidence of smoking was highest among banks and health facilities, at more than 80%, however efforts to make these venues completely smoke-free are still needed. Whilst educational institutions had higher than average compliance, compliance was still poor, with only 67% and 73% of educational institutions complying in the East and South districts, respectively. This finding is of particular concern; measures to enforce strict smoke-free policies at educational institutions are crucial to protect the health of Pakistan's youth.

The display of no-smoking signage varied by venue type and was very low across all venue types. When assessing the display of no-smoking signage at the main entrance, only 6-7% of venues in each district had signage displayed. None (0%) of the educational institutions observed had signage displayed at the main entrance. When assessing the display of no-smoking signage inside the venue, only 10-12% of all venue types in each district had signage displayed. None of the observed public service vehicles had no-smoking signage displayed.

Despite the complete ban on designated smoking areas/rooms,¹ these were still observed. Designated smoking areas were observed in 4-9% of venues in each district, and designated smoking rooms were observed in 1% of venues in each district. Observations were also made as to whether the manager/owner of the venue tried to dissuade individual(s) from smoking if one or more individuals were observed to be smoking. Among the venues where smoking was observed, only 3% (n=13) of observations noted a venue manager dissuading someone from smoking on venue premises. Venues were also observed for any on-site sales of tobacco products; between 13-15% of venues in each district were selling tobacco products.

Recommendations: Enforcement agencies must ensure they are conducting routine inspections and monitoring of smoke-free implementation across all public places in their districts. There is a need to improve enforcement efforts in all venue types observed, particularly amusement centers, restaurants, hotels, and government offices. Enforcement efforts concerning the display of no-smoking signage at all public venues must also be prioritized, particularly educational and health facilities. Clear instructions from enforcement authorities on where to place the signs, and wider distribution of standardized no-smoking signs to venue managers/owners, are needed in order to improve compliance. To support the development of 100% smoke-free public places, enforcement agencies must also ensure the removal of designated smoking areas and designated smoking rooms from all venues. Training workshops, as well as social marketing campaigns, can also complement the enhanced enforcement efforts by improving awareness about the importance of "smoke-free public places" among key stakeholders and the general population.

I. Introduction

Tobacco use is a major public health concern in Pakistan; about 29% of male adults, 2% of female adults, and 16% of the overall population use cigarettes.² In recent years, the government has taken several critical steps to address this epidemic. In 2002, the "Prohibition of Smoking in Enclosed Places and Protection of Non-smokers Health Ordinance" was passed to protect the health of non-smokers¹ and in 2005 the country also became a party to the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC).² According to the most recent Global Adult Tobacco Survey for Pakistan (2014), secondhand smoke exposure remains high; 70% of adults who work indoors are exposed to tobacco smoke at their workplace, and 90% of adults who visit restaurants are exposed to tobacco smoke at these restaurants.³ In this context, compliance with Pakistan's smoke-free policy is crucial to protect the health of the general public.

All subnational jurisdictions are covered by the national tobacco control ordinance.¹ As per Sections 5, 6, and 10, smoking is prohibited in any place of public work or use (this includes but is not limited to health institutions, amusement centers, restaurants, educational institutions, and public service vehicles)¹, and venue managers are responsible for displaying a no-smoking sign at all conspicuous places located in and outside of every place of public work or use.¹

This report summarizes the results from the observational study that was conducted across the East and South districts of Karachi to assess compliance with the 2002 Ordinance. The work was led by the Institute for Global Tobacco Control (IGTC) at the Johns Hopkins School of Public Health (JHSPH) in collaboration with the International Union Against Tuberculosis and Lung Disease (The Union). Data collection was overseen by researchers from Gallup Pakistan, who also hired local data collectors.

II. Methods

Sampling Approach

The East and South districts of Karachi, Pakistan were selected as the study area. Ten types of public venues covered by the ordinance were selected based on recommendations made by The Union in consultation with their local partners.

Comprehensive venue lists in the East and South districts were obtained. If the total number of venues exceeded the predetermined cap, a random sampling approach was used. Otherwise, a census sampling approach was undertaken. The final sample, and the final sampling method by district, is presented in Appendix A (Tables 1 and 2).

Training

Staff and faculty from the Institute for Global Tobacco Control (IGTC), Johns Hopkins Bloomberg School of Public Health (JHSPH), with partners from The Union trained local data collectors hired by Gallup Pakistan to follow data collection protocols and conduct observations in each of the identified public venues.

Training was held between October 23, 2019 to October 25, 2019 for 20 data collectors at Gallup Pakistan's office in Karachi. The first day of the training introduced the data collectors to Pakistan's national smoke-free policy and provided them with an overview of the research study, data collection protocol and observation tool. The subsequent two days were spent practicing using the observation tool in the field. Data collectors used smartphones/tablets equipped with the Survey CTO application, where the observation tool was housed, to practice conducting observations at sample venues using the data collector procedures outlined in the data collector protocol. Subsequently, the data collectors had a chance to meet with the JHSPH team to review and verify any questions or concerns which arose during field practice.

Observations

Data collection took place between October 28, 2019 – December 20, 2019. Data were collected through direct observation in venues using an observation form that had been uploaded to a mobile data collection application. The observation form included questions regarding the presence/absence of smoker(s); presence/absence of cigarette butts, and presence/absence of ashtrays (or other instruments used to hold cigarette ash). In addition, questions regarding the placement of no-smoking signage at the entrance and inside the venues were also included (Appendix B). A separate observation form (Appendix C) was developed for public service vehicles, which included indicators such as whether or not the driver was smoking, evidence of cigarette butts and ashtrays, and the presence of a no-smoking sign inside the vehicle.

Observations were conducted during normal business hours when people were most likely to be present. For restaurants, for example, the data collectors were instructed to visit during lunch or dinner hours. For hospitals, data collectors conducted observations during visitor hours. A backup list of venues was also provided in case the locations to be visited were closed or otherwise unavailable. Where possible, data collectors were paired up in teams that comprised of a male and a female since many venues specified a visit to the washrooms as an observation site. Each team of data collectors received a list of venue types with names and addresses they were to visit during each day of data collection. Once they entered the premises, the data collectors followed the study protocol (Appendix D) which outlined specific areas to observe. The recorded observations included the start and end time of data collectors were instructed to behave like customers or visitors. Due to safety concerns associated with using smartphones/tablets inside vehicles, data collectors observing public service vehicles completed the observational checklist upon reaching their destination.

Data were uploaded daily and sent to IGTC for monitoring and quality assurance.

III. Results

Sample

Observations were conducted at a total of 1,641 venues including amusement centers, banks, educational institutions, government offices, health facilities, hotels, private offices, restaurants, and sports facilities across both districts (Table 1).

Venue	East D	istrict	South District		
venue	n	%	n	%	
Amusement center	107	13	94	11	
Bank	79	10	115	14	
Educational institution	91	11	125	15	
Government office	55	7	31	4	
Health facility	115	14	79	9	
Hotel	42	5	40	5	
Private office	66	8	79	9	
Restaurant	181	22	253	30	
Sports facility	70	9	19	2	
Total	806	100	835	100	

Table	1.	Final	sam	ole b	y venue	type
TUNIC	- .		Juni		y venue	UPC .

Public service vehicles (n=63) were also included in the final sample, however these were not categorized by district. The final sample, including public service vehicles, totaled 1,704 venues.

Results for all venue types

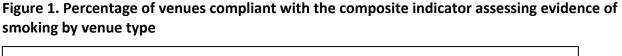
Compliance with the composite indicator assessing evidence of smoking in all venues

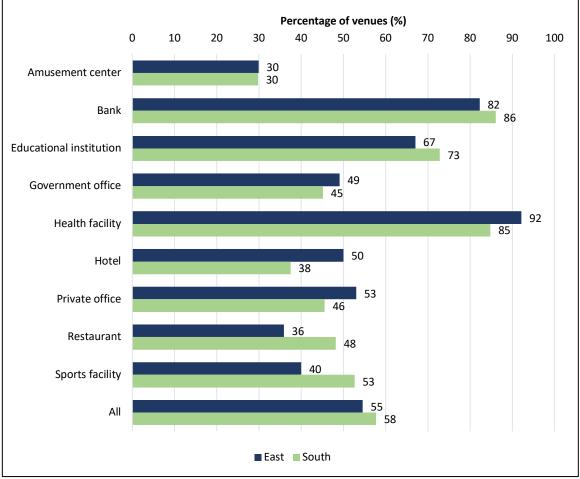
A venue was considered compliant with the composite indicator assessing evidence of smoking if all of the following criteria were met:

- 1) No one was observed smoking
- 2) No cigarette butt litter was found and
- 3) No ashtrays or other instruments used to hold cigarette ash/butts were present on venue premises.

Figure 1 shows that the percentage of venues that were compliant with the composite indicator was 55% and 58% in the East and South districts respectively.

In both districts, compliance was poorest among amusement centers (30%) and highest among health facilities and banks.





Evidence of smoking: Individual indicators

Smoking was most commonly observed at amusement centers; smoking was observed at 47% and 40% of all amusement centers in the East and South districts respectively. Restaurants and government offices also had a high prevalence of observed smoking. In the East district, smoking was observed at 43% of restaurants and 29% of government offices. In the South district, smoking was observed at 30% of restaurants and 29% of government offices. Smoking was also observed at more than one-third (38%) of all private offices in the South district. For more details, refer to Appendix E, Table 1.

Among the instances of observed smoking, the majority was cigarette smoking; only 6 instances of e-cigarette smoking were observed across both districts. Data collectors also observed whether venue managers dissuaded a smoker from smoking in their venue; 9 venue managers in the East District, and 4 venue managers in the South district, were observed asking a smoker to stop smoking.

For results pertaining to the observation of cigarette butt litter and ashtrays, refer to Appendix E, Tables 2-9.

Compliance with no-smoking signage in all venues

Main entrance

The percentage of venues which displayed no-smoking signage at the main entrance is presented in Figure 2.

Approximately 6% and 7% of all venues across the East and South districts respectively had nosmoking signage posted at the main entrance. None (0%) of the educational institutions observed had no-smoking signage posted at the main entrance. Compliance was highest among banks; approximately 20% of banks in each district had no-smoking signage displayed at the main entrance.

No-smoking signage displayed at the main entrance was also assessed for compliance with the signage guidelines outlined in the law. The law requires the following two warnings be displayed on no-smoking signage: 1) "No-smoking Zone", and 2) "Smoking is an offence".¹ More than 70% of no-smoking signs observed at the main entrance of venues in each district included "no-smoking zone", however few signs included the both warnings (see Appendix F, Table 1).

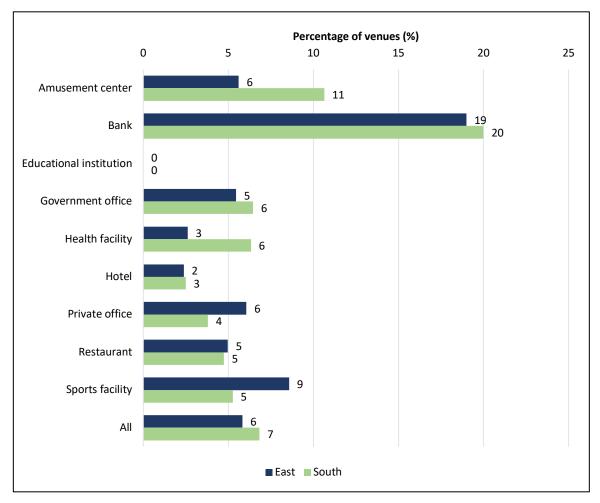


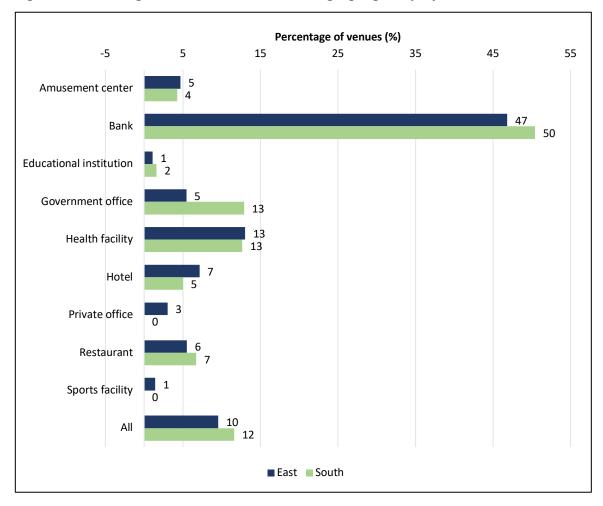
Figure 2: Percentage of venues with no-smoking signage displayed at the main entrance

Inside

The percentage of venues which displayed no-smoking signage inside the venue is presented in Figure 3.

Approximately 10% and 12% of all venues across the East and South districts respectively had no-smoking signage posted inside the venue. Across both districts, less than 10% of all amusement centers, educational institutions, hotels, private offices, restaurants and sports facilities, had no-smoking signage displayed inside. Compliance was highest among banks; approximately half of all banks observed in the East (47%) and South (50%) district had no-smoking signage displayed inside.

For more details pertaining to the exact location of no-smoking signage inside the venue, refer to Appendix F, Tables 2-3.





Compliance with the ban on designated smoking areas (DSAs)

The percentage of venues with a designated smoking area (DSA) is presented in Figure 4.

Approximately 4% and 9% of all venues in the East and South districts respectively had a designated smoking area. None (0%) of the banks observed had a DSA present inside. More than 10% of all amusement centers (16%), government offices (13%), hotels (13%), and restaurants (14%) in the South district had a DSA present inside.

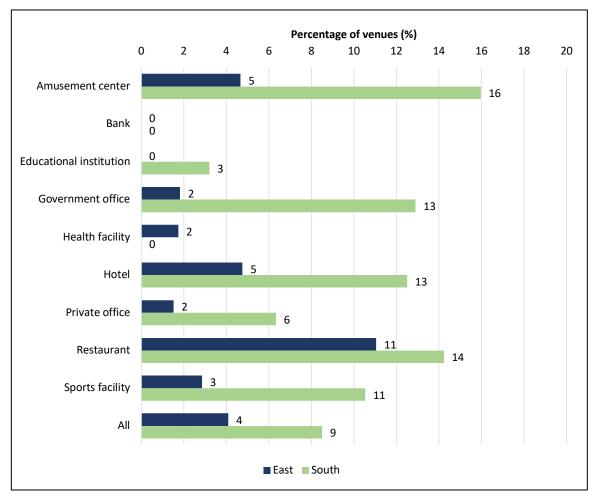
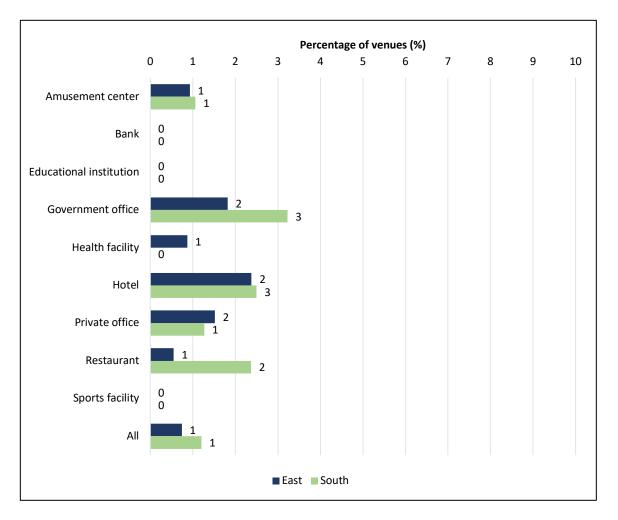


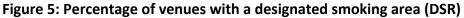
Figure 4: Percentage of venues with a designated smoking area (DSA)

Compliance with the ban on designated smoking rooms (DSRs)

The percentage of venues with a designated smoking room (DSR) is presented in Figure 5.

Designated smoking rooms were less commonly observed than designated smoking areas; 1% of all venues in each district had a DSR present.





Compliance with the ban on tobacco advertisements

The percentage of venues with tobacco advertisements or signs displayed inside is presented in Figure 6.

Approximately 4% and 1% of all venues in the East and South districts respectively had tobacco advertisements or signs displayed inside. Across the East district, 7% of amusement centers and 12% of restaurants had tobacco advertisements displayed inside. Across the South district, 5% of amusement centers had tobacco advertisements displayed inside.

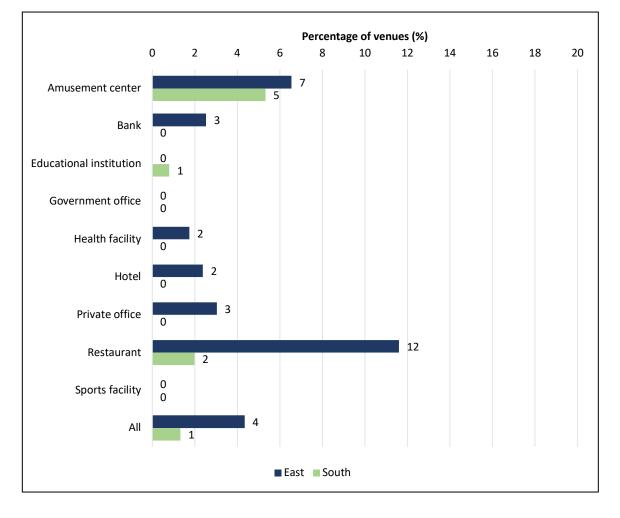


Figure 6: Percentage of venues with tobacco advertisements or signs displayed inside

Presence of the sales of tobacco products

The percentage of venues with on-site sales of tobacco products is displayed in Figure 7.

On-site sales of tobacco products were observed in approximately 15% and 13% of all venues in the East and South districts respectively. Across the East district, on-site sales were highest among amusement centers (36%) and restaurants (27%). Across the South district, on-site sales were also highest among amusement centers (33%) and restaurants (17%). In both districts, between 5-6% of all government offices observed had on-site sales of tobacco products.

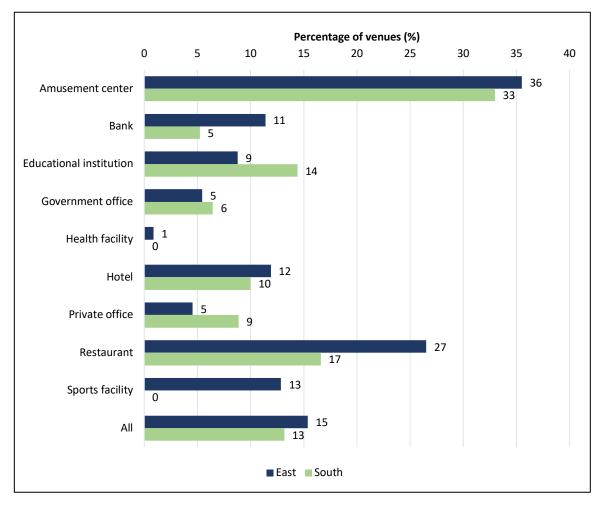


Figure 7: Percentage of venues with on-site sales of tobacco products

Public service vehicles

Sample

The sample included 63 public service vehicles. Public service vehicles sampled were not categorized by district. The number of specific types of public service vehicles observed is presented in Table 2.

Table 2: Sample of public service vehicles observed

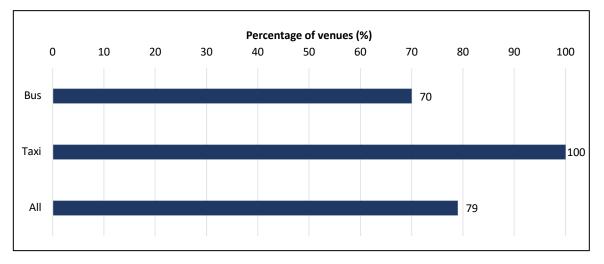
Sub-category	n	%
Bus	43	68
Taxi	20	32
Total	63	100

Compliance with the composite indicator assessing evidence of smoking in public service vehicles

Compliance with the composite indicator across public service vehicles is presented in Figure 8.

Just over three-quarters (79%) of all public service vehicles observed were compliant. All (100%) taxis observed, and 70% of buses were compliant with the composite indicator.

Figure 8: Percentage of public service vehicles compliant with the composite indicator assessing evidence of smoking



Compliance with no-smoking signage in public service vehicles

None (0%) of the public service vehicles observed had no-smoking signage displayed inside the vehicle.

Results by venue type subcategory

The following section presents compliance for each venue type subcategory, by district.

Restaurants

Sample

The sample included 181 and 253 restaurants in the East and South districts, respectively. The number of specific types of restaurants observed is presented in Table 3.

 Table 3: Sample of restaurants observed

Sub-category	East D	istrict	South District		
Sub-category	n	%	n	%	
Bakery	22	12	61	24	
Café	29	16	16	6	
Pan/Tea shop	57	31	31	12	
Dine-in restaurant	73	40	145	57	
Total	181	100	253	100	

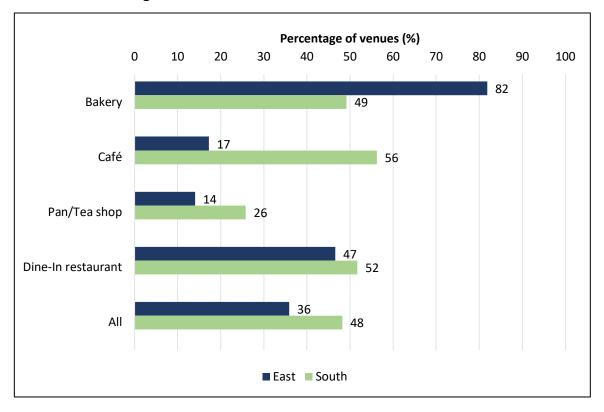
Compliance with the composite indicator assessing evidence of smoking in restaurants

Compliance with the composite indicator across restaurants is presented in Figure 9.

Less than half of all restaurants in the East (36%) and South (48%) districts were compliant. Compliance was highest among bakeries in the East district (82%).

Compliance with the composite indicator was lowest among pan/tea shops (14% in the East district and 26% in the South district). Approximately half of all dine-in restaurants in the East (47%) and South (52%) districts were compliant.

Figure 9: Percentage of restaurants compliant with the composite indicator assessing evidence of smoking



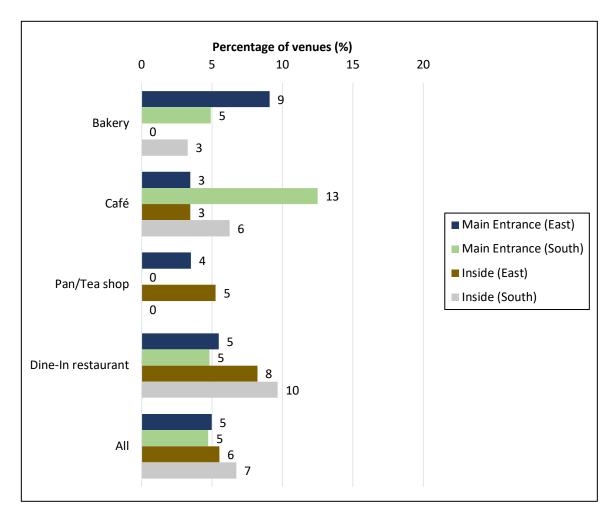
Compliance with no-smoking signage in restaurants

The percentage of restaurants which displayed no-smoking signage at the main entrance and inside the venue is presented in Figure 10.

Approximately 5% of all restaurants in each district had no-smoking signage displayed at the main entrance. Across both districts, compliance with no-smoking signage at the main entrance was poor, with 13% or less of all restaurants displaying signage.

Between 6-7% of all restaurants in each district had no-smoking signage displayed inside. Across both districts, compliance with no-smoking signage inside the venue was poor, with 10% or less of all restaurants displaying signage inside.

Figure 10: Percentage of restaurants with no-smoking signage displayed at the main entrance and inside



Educational institutions

Sample

The sample included 91 and 125 educational institutions in the East and South districts, respectively. The number of specific types of educational institutions observed is presented in Table 4. No colleges were observed in the East district.

Sub-category	East	District	South District		
Sub-category	n	%	n	%	
College	0	0	5	4	
School	59	65	95	76	
University	32	35	25	20	
Total	91	100	125	100	

Table 4: Sample of educational institutions observed

Compliance with the composite indicator assessing evidence of smoking in educational institutions

Compliance with the composite indicator across educational institutions is presented in Figure 11.

Two-thirds (67%) of all educational institutions in the East district, and 73% of all educational institutions in the South district, were compliant. Compliance was lowest among universities; 53% and 48% of universities in the East and South districts respectively, were compliant.

Percentage of venues (%) College School University

East South

All

Figure 11: Percentage of educational institutions compliant with the composite indicator assessing evidence of smoking

Compliance with no-smoking signage in educational institutions

None of the educational institutions (0%) observed had no-smoking signage posted at the main entrance. The percentage of educational institutions which displayed no-smoking signage inside is presented in Figure 12.

In the East district, only 2% of schools, and none (0%) of the universities observed had signage displayed inside. In the South district, 20% of colleges, 4% of universities, and none (0%) of the schools observed had signage displayed inside.

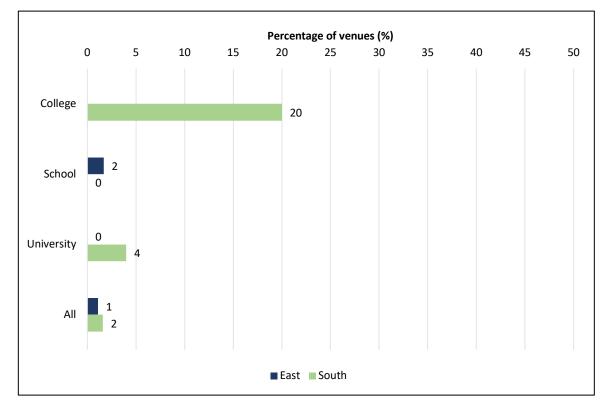


Figure 12: Percentage of educational institutions with no-smoking signage displayed inside

Health facilities

Sample

The sample included 115 and 79 health facilities in the East and South districts, respectively. The number of specific types of health facilities observed is presented in Table 5.

Sub estacen	East D	istrict	South District		
Sub-category	n	%	n	%	
Clinic	63	55	40	51	
Hijama/Homeopathic	9	8	6	8	
Hospital	33	29	28	35	
Laboratory	6	5	2	3	
Medical center	4	3	3	4	
Total	115	100	79	100	

Table 5: Sample of health facilities observed

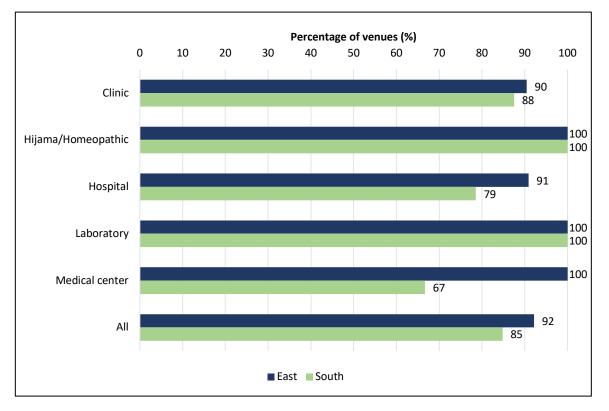
Compliance with the composite indicator assessing evidence of smoking in health facilities

Compliance with the composite indicator across health facilities is presented in Figure 13.

In the East district, compliance with the composite indicator was over 90% for all health facilities. In the South district, overall compliance with the composite indicator was lower (85%), particularly at medical centers (67%) and hospitals (79%).

All hijamas/homeopathics and laboratories (100%) observed across both districts were compliant with the composite indicator.

Figure 13: Percentage of health facilities compliant with the composite indicator assessing evidence of smoking



Compliance with no-smoking signage in health facilities

The percentage of health facilities which displayed no-smoking signage at the main entrance and inside the venue is presented in Figure 14.

Less than 10% of all venues in the East (3%) and South (6%) districts had no-smoking signage displayed at the main entrance. None (0%) of the laboratories or medical centers observed had no-smoking signage displayed at the entrance. In the East district, no-smoking signage was displayed at the main entrance of 2% of clinics, 11% of hijamas/homeopathics, and 3% of hospitals. In the South district, no-smoking signage was displayed at the main entrance of 8% of clinics and 7% of hospitals. None (0%) of the hijamas/homeopathics in the South district had no-smoking signage displayed at the main entrance.

Overall, the display of no-smoking signage was higher inside health facilities compared to at the main entrance. Approximately 13% of health facilities observed in each district had no-smoking signage displayed inside. In the East district, approximately one-third of all hospitals (30%) and laboratories (33%) had no-smoking signage displayed inside. In the South district, one-quarter (25%) of all hospitals, and all (100%) medical centers (n=3) had no-smoking signage displayed inside. None (0%) of the hijamas/homeopathics observed had no-smoking signage displayed inside.

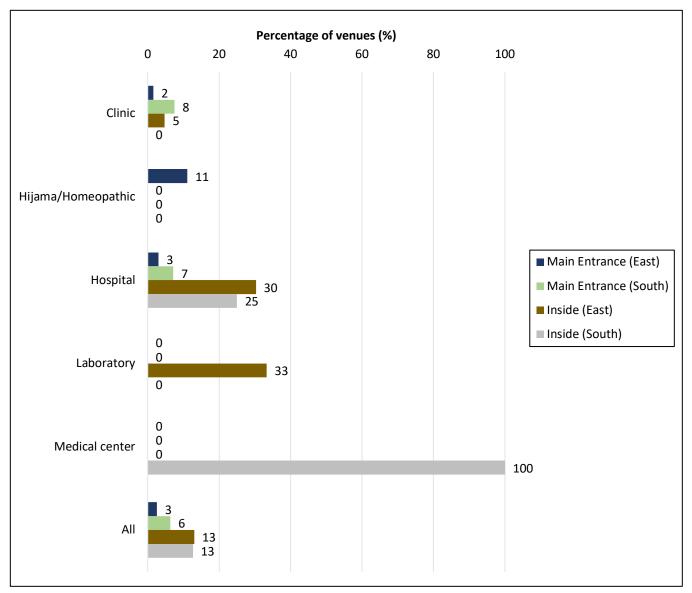


Figure 14: Percentage of health facilities with no-smoking signage displayed at the main entrance and inside

Government offices

Sample

The sample included 55 and 31 government offices in the East and South districts, respectively.

The number of specific types of government offices observed is presented in Table 6. No Union Council offices were observed in the South district, and no Water & Sewerage offices were observed in the East district.

Sub estagon	East District		South District	
Sub-category	n	%	n	%
District court	4	7	3	10
Government Official office	3	5	2	6
Ministry of Sindh office	8	15	6	19
NADRA* office	8	15	2	6
Police station	10	18	3	10
Post office	5	9	12	39
Union Council office	7	13	0	0
Water & Sewerage office	0	0	1	3
Other	10	18	2	6
Total	55	100	31	100

Table 6: Sample of government offices observed

*NADRA offices refer to the National Database and Registration Authority, an independent agency under the Ministry of Interior, Government of Pakistan

Compliance with the composite indicator assessing evidence of smoking in government offices

Compliance with the composite indicator across government offices is presented in Figure 15.

Approximately half of all government offices in the East (49%) and South (45%) districts were compliant. For the majority of government offices observed across both districts, compliance was less than 50%. In the East district, compliance was highest among police stations (80%) and government official offices (67%). In the South district, both NADRA offices (100%), and the single water & sewerage office (100%) observed were compliant.

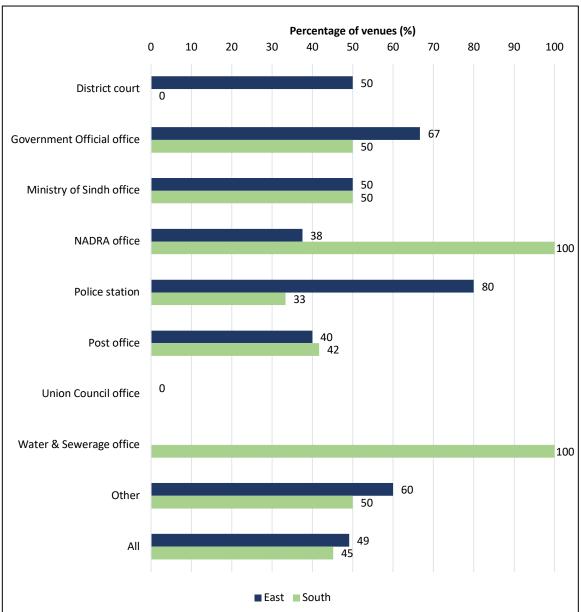


Figure 15: Percentage of government offices compliant with the composite indicator assessing evidence of smoking

Compliance with no-smoking signage in government offices

The percentage of government offices which displayed no-smoking signage at the main entrance and inside is presented in Figure 16.

The majority of government offices observed did not have no-smoking displayed at the main entrance. In the East district, compliance was highest among post offices (20%). In the South district, compliance was highest among police stations (33%) and Ministry of Sindh offices (17%).

The majority of government offices observed did not have no-smoking signage displayed inside. In the East district, compliance was highest among post offices (20%), Ministry of Sindh offices (13%), and NADRA offices (13%). In the South district, compliance was highest among Ministry of Sindh offices (33%) and post offices (17%).

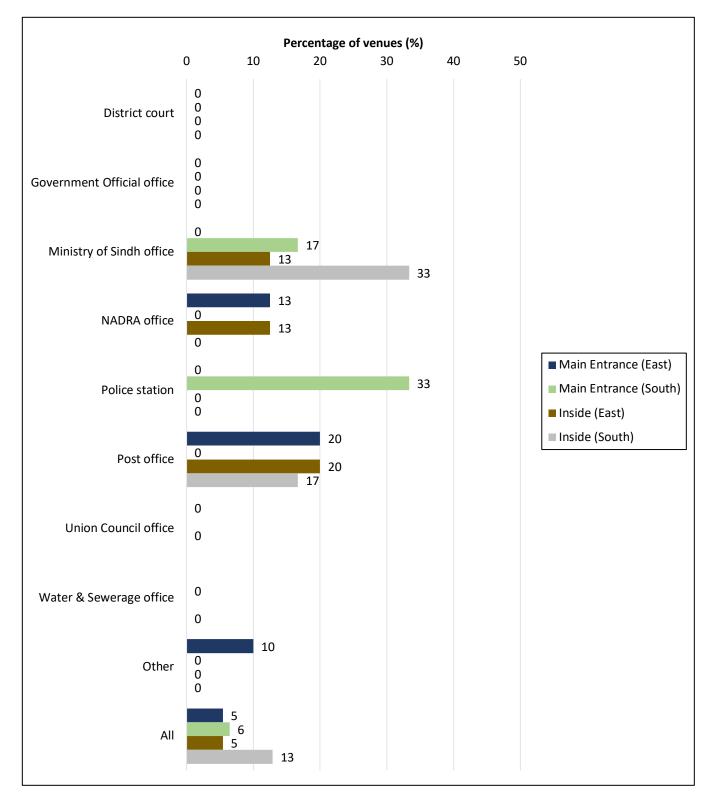


Figure 16: Percentage of government offices with no-smoking signage displayed at the main entrance and inside

Amusement centers

Sample

The sample included 107 and 94 amusement centers in the East and South districts, respectively. The number of specific types of amusement centers observed is presented in Table 7. No Faculty of Arts venue was observed in the East district, and no cinemas or snooker clubs were observed in the South district.

Sub-category	East D	istrict	South District		
Sub-category	n	%	n	%	
Amusement park	5	5	3	3	
Cinema	2	2	0	0	
Faculty of Arts	0	0	1	1	
Shopping center	80	75	90	96	
Snooker club	20	19	0	0	
Total	107	100	94	100	

Table 7: Sample of amusement centers observed

Compliance with the composite indicator assessing evidence of smoking in amusement centers

Compliance with the composite indicator across amusement centers is presented in Figure 17.

Approximately 30% of all amusement centers in each district were compliant. Only one (50%) of the cinemas observed in the East district was compliant. Approximately one-third of all shopping centers in the East (34%) and South (30%) districts were compliant.

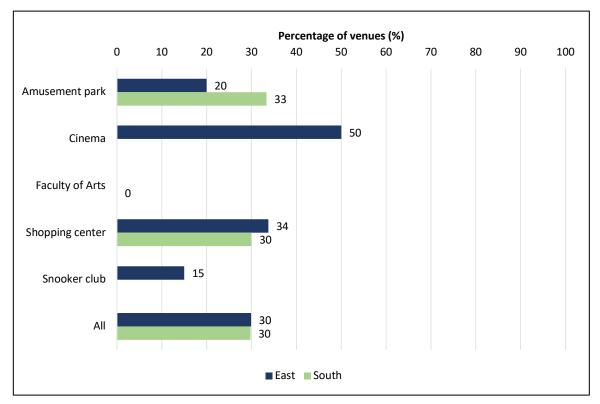


Figure 17: Percentage of amusement centers compliant with the composite indicator assessing evidence of smoking

Compliance with no-smoking signage in amusement centers

The percentage of amusement centers which displayed no-smoking signage at the main entrance and inside the venue is presented in Figure 18.

Approximately 6% and 11% of all amusement centers in the East and South districts, respectively had no-smoking signage displayed at the main entrance. Only one (50%) of the cinemas observed in the East district had no-smoking signage posted at the entrance. Only 5% and 10% of shopping centers in the East and South districts, respectively, had no-smoking signage posted at the main entrance.

Approximately 4-5% of all venues in the East and South districts had no-smoking signage posted inside. Only one (50%) of the cinemas observed in the East district had no-smoking signage posted inside. Among shopping centers, which made up the majority of amusement centers observed, only 4% in the East and 3% in the South had no-smoking signage displayed inside.

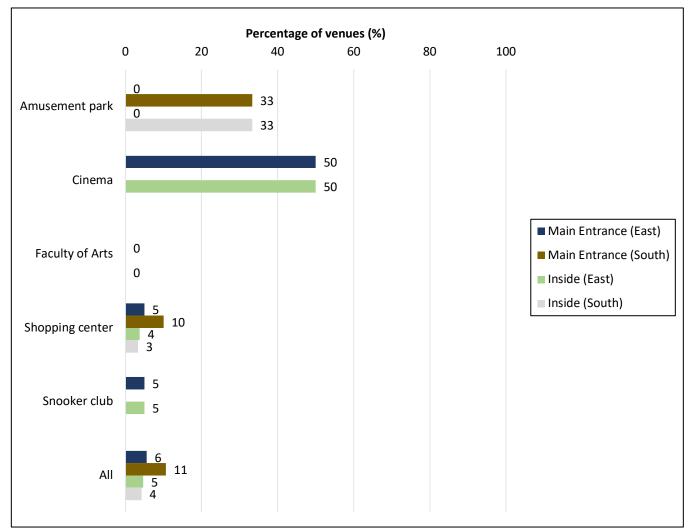


Figure 18: Percentage of amusement centers with no-smoking signage displayed at the main entrance and inside

Banks

Sample

The sample included 79 and 115 banks in the East and South districts, respectively. The number of specific types of banks observed is presented in Table 8.

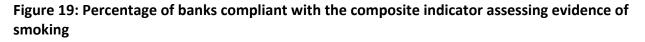
Sub-category	East District		South District	
	n	%	n	%
Private bank	72	91	105	91
Public bank	7	9	10	9
Total	79	100	115	100

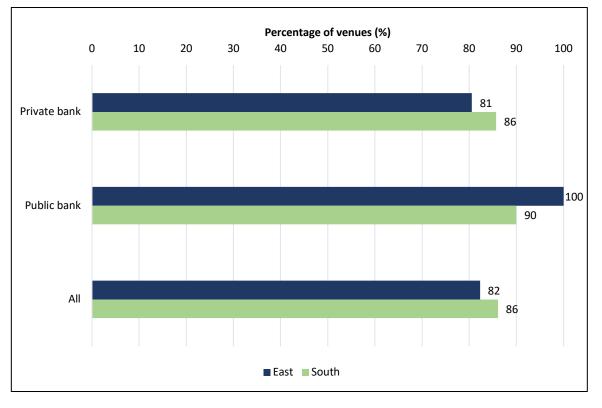
Table 8: Sample of banks observed

Compliance with the composite indicator assessing evidence of smoking in banks

Compliance with the composite indicator across banks is presented in Figure 19.

More than 80% of all banks in the East (82%) and South (86%) districts were compliant. All (100%) of the public banks in the East district were compliant. Compliance was lower among private banks compared to public banks.





Compliance with no-smoking signage in banks

The percentage of banks which displayed no-smoking signage at the main entrance and inside the venue is presented in Figure 20.

Approximately 20% of banks in both districts had no-smoking signage displayed at the main entrance. In the East district, no-smoking signage was displayed at the main entrance of 18% of private banks and 29% of public banks. In the South district, no-smoking signage was displayed at the main entrance of 20% of private banks and 20% of public banks.

Approximately half of all banks in the East (47%) and South (50%) districts had no-smoking signage displayed inside. Compliance was lower in public banks compared to private banks; fewer than half of all public banks in the East (29%) and South (40%) districts had no-smoking signage posted inside.

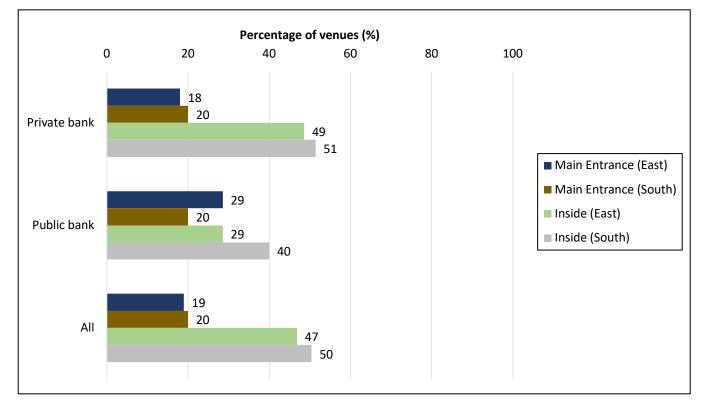


Figure 20: Percentage of banks with no-smoking signage displayed at the main entrance and inside

Hotels

Sample

The sample included 42 and 40 hotels in the East and South districts, respectively. The number of specific types of hotels observed is presented in Table 9.

Sub-category	East District		South District	
	n	%	n	%
Guest house	23	55	19	48
Hotel	19	45	21	53
Total	42	100	40	100

Table 9: Sample of hotels observed

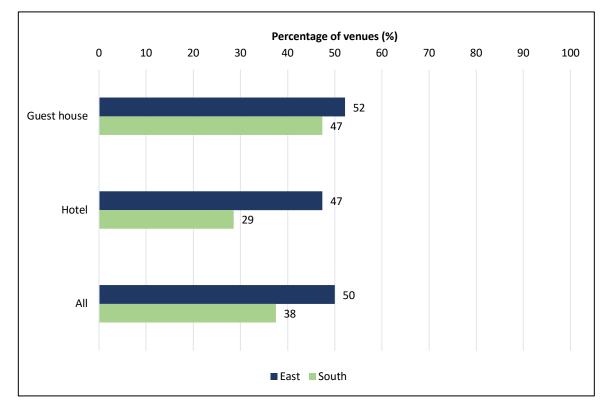
Compliance with the composite indicator assessing evidence of smoking in hotels

Compliance with the composite indicator across hotels is presented in Figure 21.

Half (50%) of all hotels in the East district, and 38% of all hotels in the South district were compliant with the composite indicator.

In the East district, roughly half of all guest houses (52%) and hotels (47%) were compliant. In the South district, fewer than half of all guest house (47%) and hotels (29%) were compliant.

Figure 21: Percentage of hotels compliant with the composite indicator assessing evidence of smoking



Compliance with no-smoking signage in hotels

The percentage of hotels which displayed no-smoking signage at the main entrance and inside the venue is presented in Figure 22.

Approximately 2-3% of all hotels observed across each district had signage displayed at the main entrance. None (0%) of the guest houses observed had signage displayed at the main entrance, and 5% of all hotels in each district had signage displayed at the entrance.

Across hotels, the display of no-smoking signage was higher inside the venue compared to at the main entrance. In the East district, 4% of guest houses and 11% of hotels had no-smoking signage displayed inside. In the South district, none (0%) of the guest houses and 10% of hotels had no-smoking signage displayed inside.

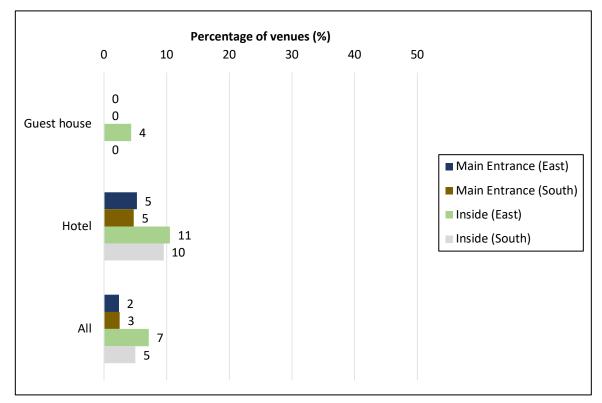


Figure 22: Percentage of hotels with no-smoking signage displayed at the main entrance and inside

Sports facilities

Sample

The sample included 70 and 19 sports facilities in the East and South districts, respectively. The number of specific types of sports facilities observed is presented in Table 10. No sports stadiums were observed in the South district.

Sub-category	East District		South District	
	n	%	n	%
Ground	42	60	14	74
Sports court	10	14	5	26
Sports stadium	18	26	0	0
Total	70	100	19	100

Table 10: Sample of sports facilities observed

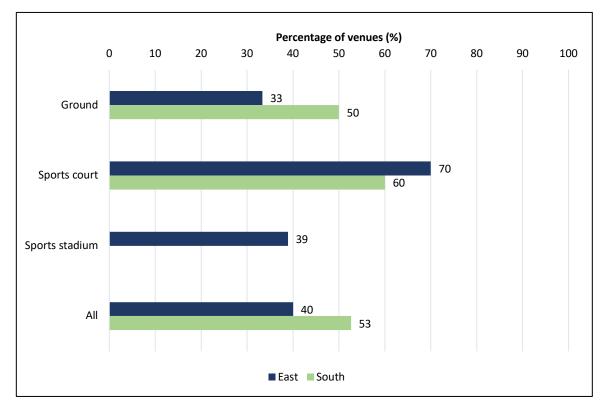
Compliance with the composite indicator assessing evidence of smoking in sports facilities

Compliance with the composite indicator across sports facilities is presented in Figure 23.

Approximately 40% of all sports facilities in the East district, and 53% of all sports facilities in the South district, were compliant with the composite indicator.

In the East district, 33% of all grounds, and 39% of all sports stadiums were compliant. In the South district, 50% of all grounds were compliant. Compliance with the composite indicator was highest among sports courts (70% in the East district and 60% in the South district).

Figure 23: Percentage of sports facilities compliant with the composite indicator assessing evidence of smoking



Compliance with no-smoking signage in sports facilities

The percentage of sports facilities which displayed no-smoking signage at the main entrance and inside the venue is presented in Figure 24.

9% of all sports facilities in the East district, and 5% of all sports facilities in the South district had no-smoking signage displayed at the main entrance. In the East district, 12% of grounds, 6% of sports stadiums, and none (0%) of the sports courts had signage displayed at the main entrance. In the South district, 20% of all sports courts, and none (0%) of the grounds had signage displayed at the main entrance.

Overall, the majority of sports facilities observed did not have no-smoking signage displayed inside the venue. The only sports facilities with no-smoking signage displayed inside was grounds located in the East district (2%).

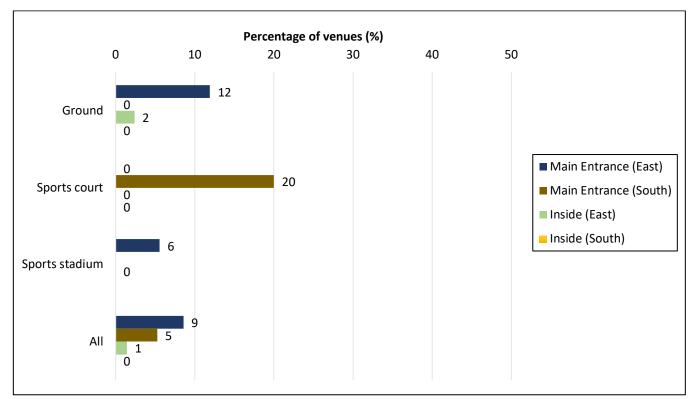


Figure 24: Percentage of sports facilities with no-smoking signage displayed at the main entrance and inside

IV. Discussion

Implementing comprehensive smoke-free public places is necessary to protect the public from exposure to tobacco smoke, and to discourage tobacco consumption as a socially acceptable behavior. Our findings showed that overall compliance with the "Prohibition of Smoking and Protection of Non-smokers Health Ordinance, 2002" was poor across all venue types in the East and South districts of Karachi. While compliance with the composite indicator assessing "evidence of smoking" did not vary greatly across the two districts, it did vary by different venue types; only 30% of amusement centers in both districts were compliant whereas 92% and 85% of health facilities in the East and South districts were compliant.

Likewise, the display of no-smoking signage did not vary greatly across the two districts and was poor across all venues, particularly educational institutions. Compliance with no-smoking signage at the main entrance was 20% or less; compliance with no-smoking signage inside was 50% or less. None of the public service vehicles observed displayed no-smoking signage. These findings are consistent with existing studies which also showed poor smoke-free compliance across public places in Karachi in 2014.⁴

Despite the ban on DSAs and DSRs, our findings also showed the presence of DSAs and DSRs across most venue types in both districts. Banks were the only venue type where no DSAs or DSRs were observed. Designated smoking areas were more prevalent than designated smoking rooms, particularly in amusement centers and restaurants in the South district, where 16% of amusement centers and 14% of restaurants had DSAs present. Similarly, the sale of tobacco products was observed at most venue types and was most commonly observed at amusement centers (33-36% in each district) and restaurants (17%-27% in each district).

There are several recommendations that can be drawn from this study. Enhanced and consistent enforcement efforts by all enforcement agencies across the city are urgently needed and can accelerate the establishment of comprehensive smoke-free public places in Karachi. Standardized guidelines may help these authorities to uniformly enforce the policy across all venue types. Moreover, clear instructions from enforcement authorities on where to place no-smoking signs, and wider distribution of standardized signs, are required in order to improve compliance with the display of no-smoking signage, both at the main entrance and inside of the venues.

As per the 2002 Ordinance, venue managers are also responsible for ensuring that all places of public work or use comply with the smoke-free policy. Sections 5, 6 and 10 of the 2002 Ordinance mandate venue managers/owners to enforce smoking bans, and display appropriate no-smoking signage on their venue premises.¹ We observed whether venue managers/owners tried to dissuade individuals from smoking, and found this to occur at only 3% (n=13) of venues where smoking was observed. The roles and responsibilities of venue managers when they observe violations need to be reinforced through mass media campaigns, capacity building and training workshops, including the issuance of fines as outlined in Article 11 (2002 Ordinance).¹

In 2009, the Ministry of Health issued SRO 51(KE), which prohibits the establishment of designated smoking areas and rooms, and declares that all public places listed in the 2002

Ordinance be 100% smoke-free, thus rescinding a previously issued SRO which permitted owners to establish designated smoking areas or rooms.¹ Despite this, DSAs and DSRs are still present at public venues, indicating that resources need to be directed towards ensuring venue mangers have appropriate knowledge of the smoke-free policy.

Social marketing campaigns can also help complement the aforementioned strategies. In a study assessing medical students' knowledge, attitudes, and practices (KAPS) at a university campus in Karachi, 58% of students either did not know, or were not aware, that the university was declared a smoke-free zone.⁵ Accordingly, social marketing campaigns can be aimed at improving awareness among the general public regarding the importance of "smoke-free public places," as well as the dangers of tobacco smoke.⁶⁻⁷

V. Limitations

This study has some limitations. First, our study only assessed smoke-free compliance in two districts in Karachi. Accordingly, our findings may not be generalizable to all of Karachi. Second, the length of time spent at certain venues were limited. Data collectors were advised to spend between 20-30 minutes at each venue however this was not always possible in banks. Banks in Pakistan have heavily armed security, making it difficult for data collectors to observe the venue for long periods of time without being questioned by security officers. Similarly, data collectors were advised against using tablets/smartphones on public service vehicles due to safety concerns, therefore observations pertaining to public service vehicles were inputted once data collectors reached their destination, thus there may be recall bias.

VI. Conclusions

Compliance with the "Prohibition of Smoking in Enclosed Places and Protection of Non-smokers Health Ordinance" was found to be poor across all venues in the East and South districts of Karachi. This study suggests the need for enhanced enforcement to increase compliance and reduce exposure to second-hand smoke. Developing standardized guidelines will assist enforcement agencies to uniformly enforce the ordinance as findings showed that compliance varied across venue types. Moreover, given that the display of no-smoking signage was poor across both districts and all venue types, clear instructions regarding the placement of these signs and wider distribution of standardized no-smoking signs are also urgently needed. Training workshops for venue owners may also enhance as well as reinforce these stakeholders' understanding of their roles and responsibilities in the implementation of the smoke-free ordinance. Social marketing campaigns may complement these efforts and improve the awareness of the importance of smoke-free public places among the general population. With such a concerted effort, it is possible to establish 100% smoke-free compliant public places in the East and South Districts of Karachi, and help act as a driver for other districts in Karachi to strengthen their compliance with the smoke-free policy.

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