

Friday, 14 September 2012

## Since the new smoking ordinance took effect, residents and visitors report sustained favorable perceptions but message not effectively getting through to all visitors

IFT Tourism Research Centre (ITRC) is announcing today the results of two studies related to the new smoking ordinance adopted in Macao early this year. The first study, conducted by ITRC, was a two-phase survey to collect opinions and perceptions of both residents and visitors on the smoking ordinance and its effects. The second study explored the key factors affecting the smoking behaviors of tourists in Macao and was conducted by IFT academics Mr. Samson Leong and Dr. Cindia Lam.

### Background

The Macao SAR government implemented new tobacco control measures to establish a new era of smoke-free Macao with the aim of protecting public health from the harm of both direct and indirect tobacco usage. The smoking ordinance took into effect since 1 January 2012.

### THE FIRST STUDY: Assessing the Impacts of the Macao 2012 Smoking Ordinance

The first study involved carrying out two extensive surveys of residents and visitors and was carried out by ITRC researchers Ms. Wendy Tang and Mr. Patrick Lo. The surveys sought to capture respondents' (1) awareness and general opinions towards smoking ordinance, (2) perception of air quality due to people's smoking, and (3) behaviors after the smoking ordinance. The two rounds of surveys were conducted via street interviews and were carried out in early- and mid-2012. Data were collected at various locations, including busy downtown, custom entry points and tourist attractions. A total of 2,040 individuals responded to the survey, among which 1,022 were residents and 1,018 were visitors.

### Highlights of results

- Of the total respondents 23% were smokers while 77% were non-smokers. Residents and visitors shared similar smoking behavior in the survey sample.
- Awareness of the new smoking ordinance was remarkably high among residents (97.9%). Though not as greatly aware as residents, majority of surveyed visitors (69.6%) also knew about the ordinance. Repeat visitors showed a higher degree of awareness (72.5%) than first-time visitors (63.9%). See Figure 1.
- Residents (75.8%) and visitors (76.7%) generally agreed to legislate against smoking. See Figure 2.
- Residents perceived the air quality in the following sectors listed below (and shown in Figure 3) to be notably better:

<i>2-months after the ordinance took into effect (% of residents)</i>		<i>6-months after the ordinance took into effect (% of residents)</i>	
1. Restaurants and F&B outlets	83.1%	1. Restaurants and F&B outlets	85.4%
2. General indoor area	72.9%	2. General indoor area	66.8%
3. Hotels (public area)	64.1%	3. Public services and facilities	64.2%
4. Workplace	62.1%	4. Parks	62.1%
5. Public services and facilities	59.6%	5. Hotels (public area)	61.5%

Sectors like restaurants and F&B outlets showed sustained improvements in air quality, even after 6-months. Improvements in workplaces, however, were rather short lived.

- Compared with their last visit to Macao before the ordinance took effect, repeat visitors report notable improvements in the air quality of several areas. (See table below.) Improvements in the air quality of transport hubs and bus stops were short lived while improvements in the air quality of entertainment venues took some time to be noticed. See also Figure 4.

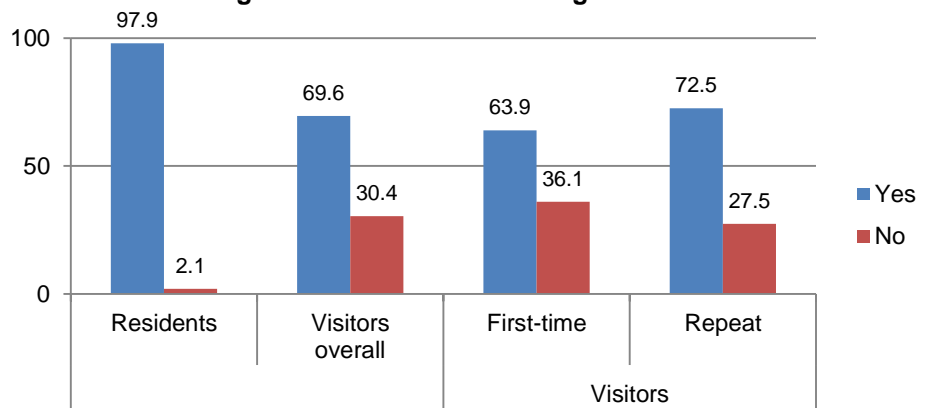
2-month after (% of repeat visitors)		6-month after (% of repeat visitors)	
1. Restaurants and F&B outlets	71.2%	1. Restaurants and F&B outlets	72.3%
2. General indoor area	69.9%	2. General indoor area	63.0%
3. Hotels (public area)	63.3%	3. Hotels (public area)	52.8%
4. Parks	58.7%	4. Entertainments (e.g. cinemas, Karaoke etc.)	52.0%
5. Transportation hub and bus stop	56.1%	5. Parks	51.5%

- The table below and Figure 5 shows that first-time visitors found air quality in various areas in Macao to be notably better than their expectation.

2-month after (% of first-time visitors)		6-month after (% of first-time visitors)	
1. Restaurants and F&B outlets	74.3%	1. Restaurants and F&B outlets	79.5%
2. General indoor area	69.7%	2. General indoor area	76.2%
3. Transportation hub and bus stop	64.0%	3. Hotels (public area)	66.9%
4. Hotels (public area)	63.5%	4. Public services and facilities	63.1%
5. Parks	61.9%	5. Transportation hub and bus stop	61.6%

Half of residents surveyed claimed they smoked less often as a result of the ordinance.

**Fig. 1: Awareness of smoking ordinance**

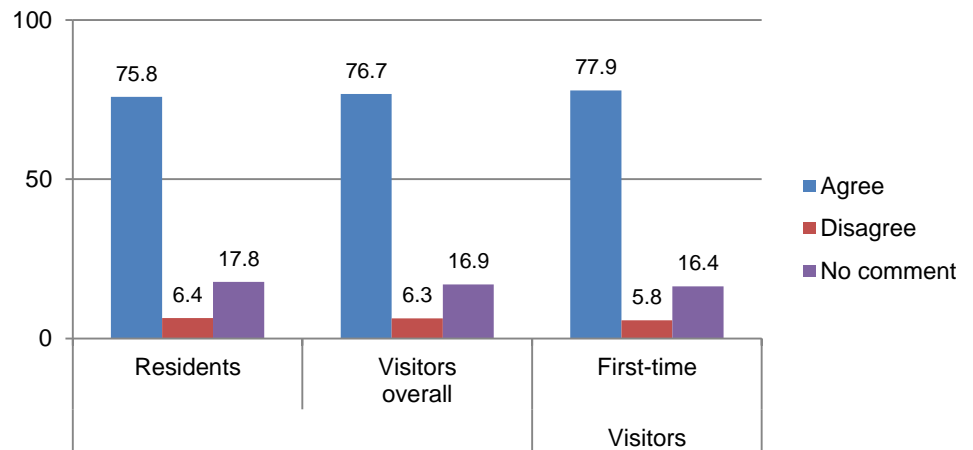


- Overall, respondents perceived notably better air quality in restaurants and F&B outlets and general indoor areas, respectively, when compared to the pre-ordinance period (residents), their last visit (repeat visitors) and their expectation (first-time visitors).
- Fewer residents and visitors thought casinos, compared to other sectors, had better air quality despite the new ordinance. This is to be expected given that the ordinance has not been fully implemented in casinos. Nevertheless, the percentage of respondents who evaluated the air quality in casinos to be better increased significantly after 6 months (among residents and visitors). This suggests that while there is some degree of improvement in the air quality of casinos, more needs to be done overall for this sector.
- The smoking ordinance positively affected the behaviors of residents. About half of the residents who were smokers claimed that they have smoked less often after the ordinance. In addition more than half of them became more concerned about their own as well as others' health. See Figures 6 and 7.

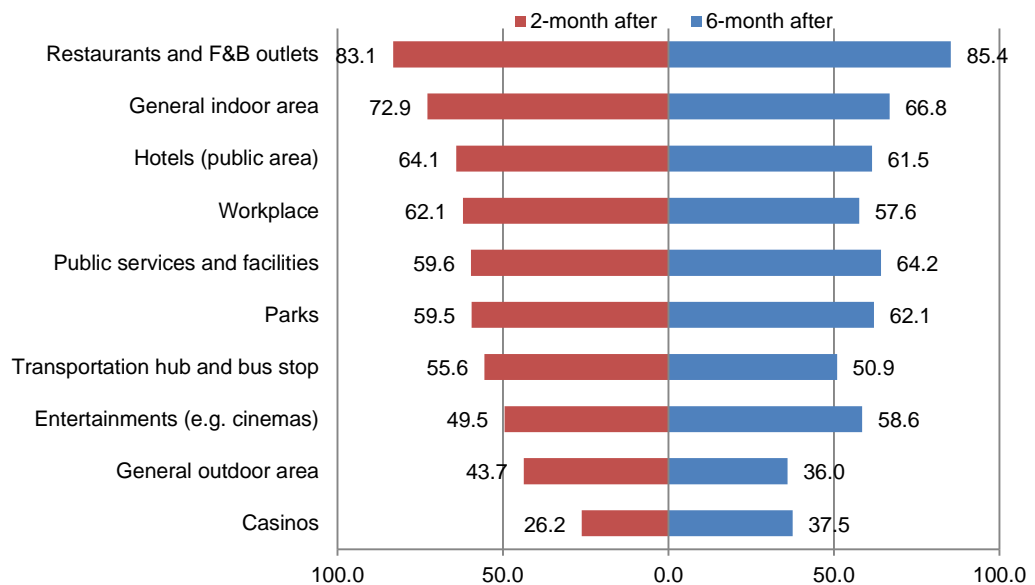
- Regarding effects of the ordinance on dining behaviors, about 25% of residents reported dining out more after the ordinance. At the same time, the ordinance seems to be successful in opening up more venues for dining to choose from among local residents. See Figures 8 and 9.
- On the other hand, Figure 10 shows that the smoking ordinance would also benefit the tourism industry as 33% of surveyed visitors indicated a larger likelihood of revisiting Macao.

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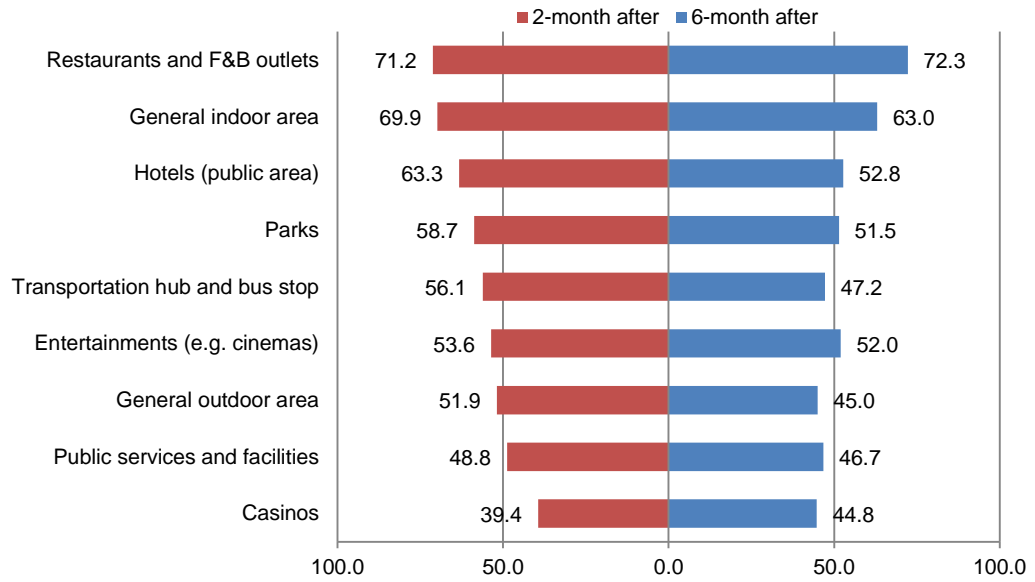
**Fig.2: Do you agree to legislate against smoking?**



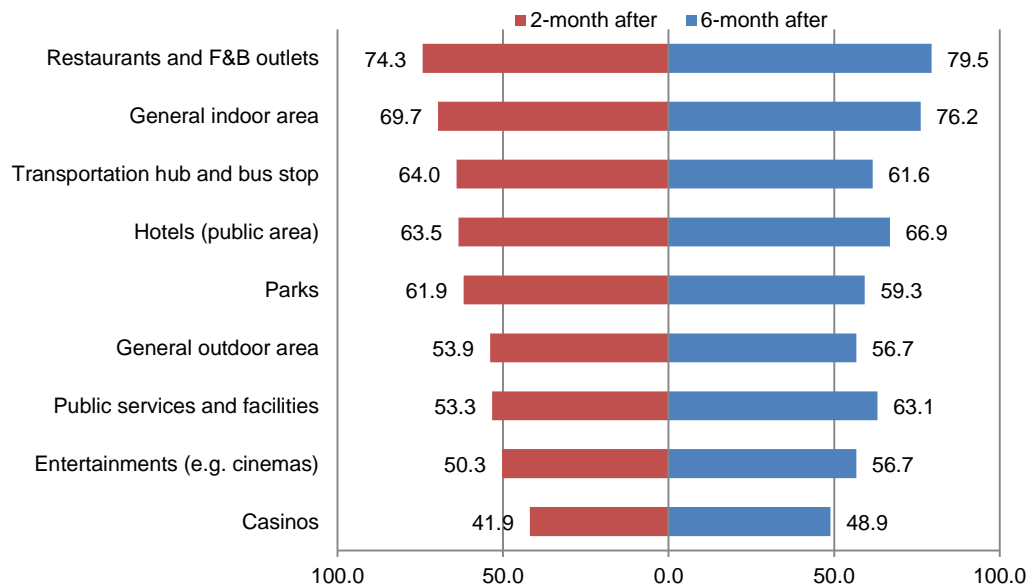
**Fig. 3: Percentage of residents reporting better air quality**



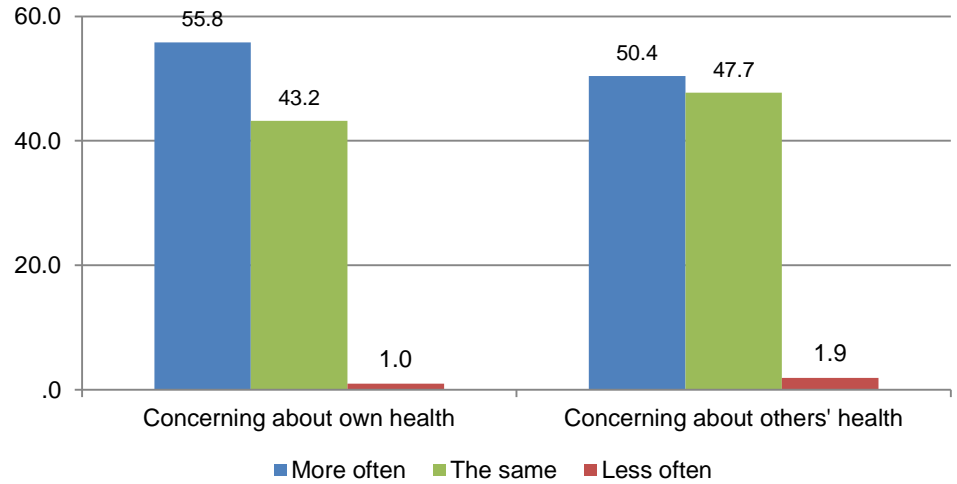
**Fig. 4: Percentage of repeat visitors reporting better air quality**



**Fig. 5: Percentage of first-time visitors reporting better air quality (compared to expectations)**

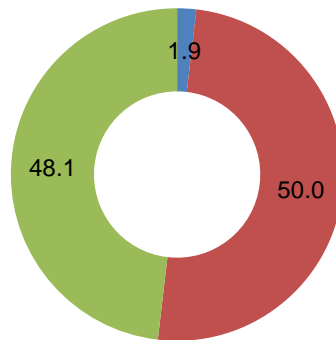


**Fig. 6: Health concern**



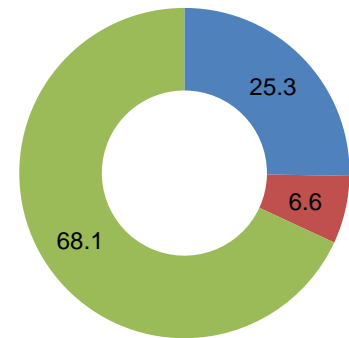
Latest statistics from the Macao Health Bureau show that visitors accounted for 34.6% of ordinance violations.

**Fig. 7: Smoking behavior**



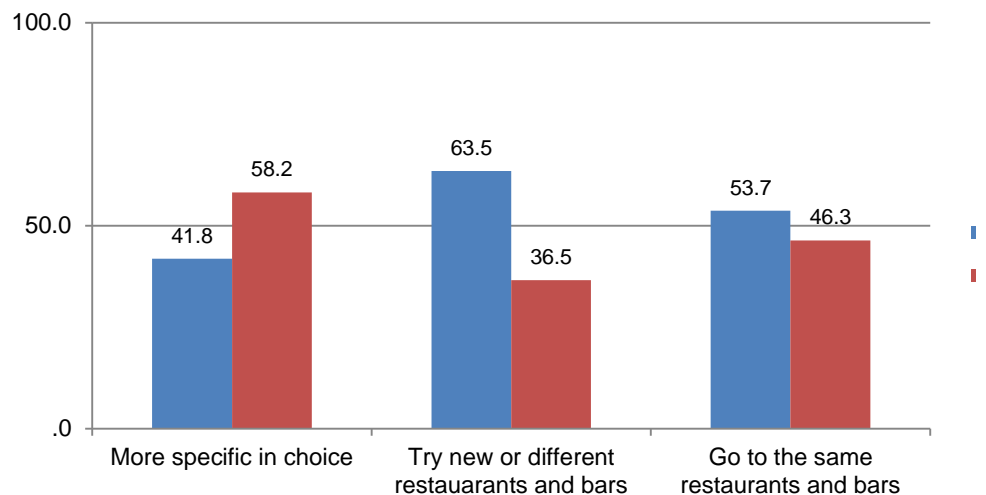
More often Less often The same

**Fig. 8: Dining out**

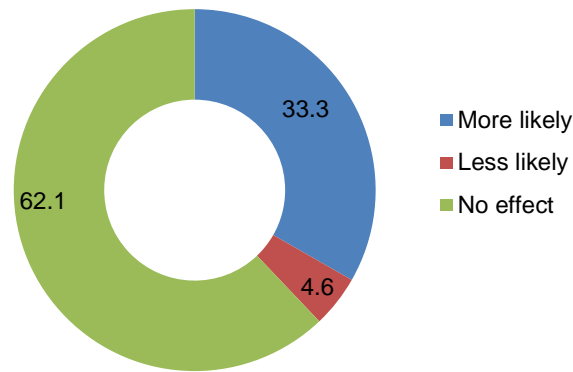


More often Less often The same

**Fig. 9: Percentage of residents reporting their choice of dining:**



**Fig. 10: Intention to revisit Macao, among visitors**



**THE SECOND STUDY: Factors Affecting the Smoking Behavior of Tourists**

In a recent study, Mr. Samson Leong, Lecturer, and Dr. Cindia Lam, Assistant Professor of IFT, applied the well-known theory of planned behavior (TPB) to investigate the factors that affected the smoking behavior of tourists in Macao. Using a questionnaire that measured respondents' behavior, intention, attitude, subjective norm and perceived behavioral control, they surveyed 1,009 visitors in Macao above the age of 18 who were smokers.

Their findings showed that the smoking behavior of visitors was significantly and positively correlated with their intention and perceived behavioral control but that intention has a stronger correlation to smoking behavior than perceived behavioral control. Furthermore, visitors' intention to smoke was significantly and positively correlated with their attitude towards smoking, subjective norm (or their perceived social expectation on whether or not to perform the behavior) and their perceived behavioral control (that is, the perceived ease or difficulty of performing the behavior). Among these factors, visitors' attitude toward smoking has the strongest correlation with their behavioral intention to smoke followed by subjective norm and perceived behavioral control. (See Figure 3.1 in the supplementary document.)

The above findings underscore the need to reinforce the new smoking ban ordinance toward visitors. This can be effectively accomplished by raising tourists' awareness about the ordinance in the following ways:

- Reinforce the message of the new smoking ordinance especially at the point of tourist arrivals such as the border crossing, airport, and ferry terminal.
- Tour guides can remind travellers where smoking is allowed and the consequences of violation.
- Strategically place posters about the new smoking law in multiple languages such as simplified Chinese, Japanese and Korean, etc.

Findings of the above study is opportune as Mr. Leong and Dr. Lam cite latest statistics from the Health Bureau of the Macao SAR (August 2012) that shows 34.6% of violations of the new ordinance were accounted for by visitors, which is quite high compared to the normal proportion of visitors to residents which is 11%.

**The study and its authors**

The above results of their study were recently presented at the 18<sup>th</sup> Asia Pacific Tourism

IFT academics Mr. Leong and Dr. Lam's study shows that discouraging visitors from smoking must start by nipping at the bud—targeting their intention to smoke.

# For general release

Association (APTA) Conference, held in June 2012.

Mr. Samson Leong is Lecturer at IFT teaching Economics. His research interests include tourist behavior and labor productivity in the service sector. Dr. Cindia Lam is Assistant Professor at IFT. Her research interests range from tourist behavior, service quality management and quality of life to corporate practice and accounting. Recently, her research has focused on impact studies, medical tourism, forecasting models and accounting education. Dr. Lam is also a member of the research team (IFT) on the study of transforming Macao into a Livable and Leisure City.

## END OF RELEASE.

Additional supplementary charts on detailed frequency counts and demographic variables for the two studies above are available at ITRC's official website: [www.ift.edu.mo/itrc](http://www.ift.edu.mo/itrc)

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