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Luis Q. Lacar



Barely four months after she became President of the Philippines, Corazon C. Aquino issued Executive Order No. 22 on 25 June 1986. This order increased the taxes on cigars and cigarettes and all alcoholic drinks to approximate world level taxation on these items where the tax component was about 50 percent of the retail price (Aquino 1986). Taxes on alcoholic drinks, for example, were increased to one peso per bottle, up from sixty nine-centavos (P 0.69) under a purely *ad valorem* formula where the tax was about 50 percent of the wholesale selling price without the tax (De Leon 1983; Matic 1973, 2; Yoingco 1985, 50). The taxes collected from alcoholic drinks and tobacco were called "sin taxes," presumably because these items were considered as "sin products."

The manifest and most dominant objective of Executive Order No. 22 was clearly economic. In the rationalization of the imposition of the increased taxes, this objective was paramount. At the time, there was an urgent need to increase revenue collection to help rebuild a plundered economy which was on the brink of collapse when Aquino assumed office as the new President of the country. With the passage of the tax measures on tobacco and alcohol, the government hoped to collect by the end of 1986 an additional P2.9 billion from cigarette factories alone, and another P750 million from the beer and liquor companies (Yoingco 1985, 50).

Although unstated and only vaguely hinted at, it is safe to say that the policy makers anticipated that the subsequent increases on the prices of these "sin products," considered hazardous and non-essential, would also influence the consumption behavior of the public. More specifically, the policy makers thought that with the increase in the prices of tobacco and alcohol, people would be compelled to rechannel expenses from the hazardous practice of smoking and drinking to other more healthful and economically produc-

tive practices such as saving and spending money for essentials as food, medical care, and education of children.

Given the research evidence on the patterns of expenditures of Filipino families, it appears that there was considerable good reason for this tacit social objective of Executive Order No. 22. In a nineteen-year (1957-75) nationwide study of the expenditures of Filipino families, for example, the Fund for Assistance to Private Education (FAPE), found that tobacco and alcoholic drinks ranked as the third highest expense of all Filipino families. Expenses for the education of children, however, consistently ranked as the seventh and last item of expense for all the nineteen-year period of the study (Dumlao and Arcelo 1979, 71-89). Food, clothing and shelter, understandably, were the highest priority items of expense (Dumlao & Arcelo 1979, 71-89).

While the priority allocated for food and clothing is rationally comprehensible, it is extremely difficult to understand why cigarettes and alcohol should be a sizeable portion of the family income (Dumlao & Arcelo 1979, 71-89). For a nation that places a high premium on education, the finding that education is given a rather low priority in the expense allocation of the family seems rather odd and illogical. On a worldwide level, the Philippines ranks as second only to the United States in terms of the proportion of the population of school age who are in school (Hunt 1966). An even more disturbing aspect of the FAPE study was the finding that lower income groups in fact spent proportionately more money for alcohol and tobacco. This pattern was true in all the regions covered by the study (Dumlao & Arcelo 1979, 71-89).

The pattern of expenditure allocation of the Filipino family has not changed much in recent times. In 1985, the National Census and Statistics Office reported that for that year, only 2.1 percent of the income of a Filipino family was spent on medical care such as doctor's fees, medicine and hospitalization, while 3.4 percent were spent for tobacco and alcoholic drinks (Casayuran 1991, 9; Carlos 1987; Alparce 1986, 11). What this means is that for every P100 pesos that a Filipino family earns, only P2.10 are spent for medical care while P3.40 are spent for tobacco and alcohol (Carlos 1987).

The appetite for drinking and smoking among Filipino families may be gleaned from the following statistics. In 1987, the national consumption of beer alone was estimated at eight million hectoliters (Alparce 1986, 11). Eight million hectoliter is equivalent to 2.3 million bottles of beer. Therefore, computed per bottle at the 1987 price

level of beer, the total expense of Filipino families for beer alone translates to about P14,950,000.

In addition to locally distilled alcoholic products, available statistics on volume and amount of imported liquors indicate that the Filipinos' thirst for alcoholic drinks extends to those brewed and distilled in other countries and is just as staggering as their thirst for the local ones. In 1987, for instance, the Philippines imported an average of P3 million worth of liquor (Carlos 1987).

Considerations of the physical health of the smoking and drinking population are also implied in the imposition of higher taxes on tobacco and alcohol. Research evidence all over the world now unequivocally show that smoking is definitely hazardous to one's physical health (Cruz 1987, 7). Dr. Judith McKay of the World Health Organization, for example, estimates that at the end of this century "at least two million Filipinos will eventually be killed by cigarettes." Noting that smoking already poses a major threat to our national health, Dr. McKay recommended the increase in the taxes on tobacco as one of the measures to curb the practice and protect the public (Cruz 1987, 7; Rodriguez 1987, 1, 13).

This article deals with and reports mainly on the social goals and objectives of Executive Order No. 22 on the smoking and drinking patterns of the Filipinos. The data used in the report are extracted from a larger study supported by the National Research Council of the Philippines and the Research Center of Iligan Institute of Technology, Iligan City, from 1987 to 1989.

The main study from which this report is culled covered ten cities in the Visayas and Mindanao and a sample of 2,235 household heads randomly chosen for the interviews. The ten cities included are Cagayan de Oro, Davao City, Iligan City, Zamboanga City, Ozamis City, Dipolog City, Cotabato City, Cebu City, Dumaguete City, and Tacloban City. Data collection began in December 1987, and continued up to February of 1989.

This article asks the question whether there were changes in the consumption of alcohol and tobacco among Filipinos in the cities covered in this study as a consequence of the increase in the taxes of tobacco and alcohol as mandated by Executive Order No. 22. More precisely, the study attempts to discover whether there was a decrease in the number of smokers and drinkers in each household sampled, and in expenditures for cigarettes and alcoholic drinks among Filipino families covered in the study after the implementa-

tion of Executive Order No. 22. Finally, the article studies whether patterns of income allocation among Filipino families have shifted away from cigarettes and alcohol towards savings and capital after the prices of alcoholic drinks and cigarettes were increased by Executive Order No. 22.

The Impact of Law on Behavior

The impact of laws on human behavior has been amply demonstrated in studies done in the United States and Europe (Kelly 1971, 157-69). Although specific studies on the impact of laws on Filipino behavior in general are very few in number, one can make a fair assumption that laws have similar impact on people anywhere in the world. Although they were abnormal because of the climate of fear, the laws/decrees passed during the Martial law regime of President Marcos affected and did change somewhat some of our behavior as a people. Executive Order No. 22 may certainly be considered to have had as one of its assumptions the changing of the behavior patterns of the drinking and smoking population of the country.

The goal of the change desired in such laws is to extinguish those patterns of behavior perceived as socially disapproved and potentially hazardous to the welfare of people, and to encourage those which are defined as more socially desirable and economically beneficial for the individual and for the state. In so far as laws are meant to protect the welfare of individuals without infringing on their basic rights, the state is justified in passing them. The reasons for the law are not necessarily moral. They may be political, social or economic. The assumption seems always to be that laws can and do trigger changes in the behavior of people. These changes are needed for the welfare of the state and the protection of the individuals.

Smoking is an area of social behavior which has received a considerable amount of interest and attention in many countries all over the world during the last three decades, primarily because of the ill effects of the practice on the health of individuals as determined by research evidence. Scientific studies of the effects of smoking unequivocally show that smoking is hazardous to the health, not only of smokers themselves, but even of those who do not smoke, but are constantly exposed to the smokers.

In the United States, cigarette companies are required by law to place a warning label on each pack of cigarettes sold, explicitly stat-

ing that smoking is dangerous to one's health. Some of the laws passed by the US Congress to control smoking include the Cigarette Labeling Act of 1965; the 1969 Smoking Act; and the 1984 Smoking Education Act (Ravenholt 1990, 213-40). In Singapore, smoking in public places and in transportation facilities has been banned since 1986. The Singapore government imposes a stiff penalty on violators of the prohibition of smoking in specified places (Carlos 1987). The goal of the government of Singapore is to have a state of total non-smokers. Stores, however, continue to carry cigarettes among their merchandise and the goal of a totally nonsmoking society for Singapore may be a bit doubtful at the moment. In the Scandinavian countries, smoking and advertisements of cigarettes and liquor have been banned for more than twenty years (Reuters 1988, 7; Carlos 1987).

Here in the Philippines, awareness of the dangers posed by smoking seems to have seeped rather slowly into our national consciousness. Legislation with respect to the control of smoking and drinking in the Philippines appears to be relatively late in coming, compared to other countries even in Asia.

In an attempt to instill greater consciousness of the dangers of smoking, Senator Santanina Rasul filed Senate Bill No. 414 in April 1988 prohibiting the advertisement of cigars and cigarettes without the accompanying warning that "smoking is dangerous to the health." The bill requires that the warning be printed at the lower right corner of the advertisement. Violators were to be fined P20,000, but not more than P50,000. Subsequent violations were to be punished with a fine of not less than P50,000, but not more than P100,000 or with imprisonment of from one to six years, or both. It appears that nothing has happened to that bill since until now cigarette newspaper advertisements still carry no warning message at all.

Quezon City has a rigid no-smoking law which was passed in 1989. This law prohibits smoking on public transportation and in other public places. Public reaction to the law has ranged from lukewarm to indifference and silent rebellion. Doubts that it could be implemented without being used by police officers as another weapon for extracting or mulcting money from hapless violators have been expressed (Ng 1991, 6). More recently, this law seems to have been observed more regularly in its breach than in its compliance, as smoking is still rampant in many areas in Quezon City even in places where large No Smoking signs are found (Ng 1991, 6).

As if indicating that it does not want to be left behind, Manila declared 4 July 1991 as "No Smoking Day" and the start of a No Smoking campaign in all covered places. Stiff penalties for any violation of the No Smoking law in Manila are provided for. However, there are still a number of doubts raised on the implementability of this law (Ng 1991, 6: Carlos 1987).

Given the Filipino trait of "ningas cogon," it is extremely doubtful that these laws against smoking will have any significant long term impact at all in the campaign against smoking. Very likely, the enforcement of these laws will be intermittent at best and selective at worst.

In the United States, advertisements of cigarettes and alcohol on television and radio have been totally banned since the early 1970s. However, an extensive and comprehensive study of smoking among Americans in 1972, immediately after the warning signs of the ill effects of smoking were printed on all packs of cigarettes sold in the markets, showed that sometimes laws can produce very surprising results. The research found that smoking among both the male and female population increased in fact during the years immediately after the warning signs of the definite ill effects of smoking were put on packs of cigarettes (Markle 1972)

The increase was noted not only in terms of the number of people smoking, but also in the number of cigarettes smoked per day per person. More significantly, the biggest increase in smokers was among women and college students who were the most active and vocal segments of the American population in the movement toward the use of organic and health foods (Markle 1972).

Findings of the Study

It is obvious from our data that Executive Order No. 22 reduced neither the volume of consumption of alcohol and tobacco nor the number of drinkers and smokers in the households studied. Sales for both cigarettes and alcoholic drinks increased in volume after the implementation of Executive Order No. 22. In terms of the number of cigarettes smoked per household, Table 1 shows very clearly the lack of effect of Executive Order No. 22. It may be noted from Table 1, for instance, that in 1985-86, the average number of sticks of cigarettes smoked daily in each household was seven. After the

Table 1. Percent Distribution of Number of Cigarettes and Bottles of Alcoholic Drinks Consumed Daily Per Household Unit All Cities (N=2,235)

Estimated Item Consumption Daily	1985-86	1987-88
Cigarettes (a)		
None	6	2
1-2 sticks	8	10
3-4 "	12	12
5-6 "	18	18
7-8	32	34
9-10	17	17
11 or more	7	7
Total	100	100
Average Number of Cigarettes Smoked Daily	7	8
Alcoholic Drinks (b)		
None	10	2
1 bottle/day	2	2
2 bottles/day	4	4
3 "	8	9
4 "	14	14
5 "	11	11
6 "	35	36
7 or more	16	22
Total	100	100
Average Number of Bottles of Alcoholic Drinks Consumed Daily	5	6

(a) All Brands

(b) Includes beer and other hard drinks

Note: All percentage figures have been rounded off to 100s

implementation of Executive Order No. 22 (1987-88), the average number of sticks smoked per household increased to eight sticks daily. While the increase in the average number of cigarettes smoked per household seems slight, it is still significant.

Ravenholt (1990, 213-40) estimates the annual adult per capita consumption of cigarettes in the Philippines at 1,910 sticks. We have no reason to suspect that this estimate is exaggerated. If anything, this estimate may be conservative and biased towards the low end of the statistical spectrum. It is suspected that the actual per capita consumption of cigarettes could be very much higher than Ravenholt's estimate.

The annual per capita consumption of cigarettes among our sample before the implementation of EO No. 22, based on a daily average of seven sticks, comes up to 2,520 sticks. This is slightly higher, but close enough to Ravenholt's estimate. The average annual per capita consumption after EO No. 22, based on the daily average obtained, is 2,880 sticks.

Note carefully from Table 1 that before the implementation of EO No. 22, 6 percent in the households surveyed were reported as non-smokers. After implementation of EO No. 22, the percentage of non-smokers in the households surveyed decreased to 2 percent—a drop of 66.66 percent (two-thirds) from the previous percentage. Actually the drop translates as an increase in the number of smokers, since the average number of sticks smoked per household increased. Presumably, some household members who were not yet smokers because they may have been under age, now joined the smoker group, thus adding to the number of smokers in the household.

This conclusion is supported further by the data on the increases in the percentage distribution beginning with those households who smoked between one to two sticks of cigarettes per day. Only those reporting nine to ten and eleven or more sticks of cigarettes per day remained constant at 17 and 7 percent respectively. All others showed significant increases in percentage distribution.

Again, Table 1 shows the respondents' patterns of consumption of alcoholic drinks in terms of the number of bottles imbibed on a per household per day basis. Once again, data for alcoholic drinks, indicate a lack and/or absence of a decrease in the volume of consumption of alcoholic drinks as a result of the implementation of EO No. 22. Before implementation of EO No. 22, the average number of bottles of alcoholic drinks consumed daily per household was five. After implementation of EO No. 22, the average number of bottles

consumed increased to six. Again the percent increase from the previous average before implementation of EO No. 22 seem slight.

Before EO No. 22, 10 percent of the households surveyed reported having no drinkers. After EO No. 22, the percentage of non-drinkers in the households dropped to 2 percent. In effect this means that 80 percent of the previous figure of non-drinkers now joined the drinkers after implementation of EO No. 22. As in smoking, it may be that household members previously not allowed to drink because they were considered too young, may now have been allowed to indulge in the practice.

Interestingly, we note from Table 1 that the largest increase is in the group which reported drinking seven or more bottles per day. The increase is from 16 percent to 22, or a rise of 6 percentage points from the previous year. The rest of the groups either remained stable or increased slightly.

The pattern of the percentage distribution and average number of smokers and drinkers per household indicates that as in the volume of cigarettes and alcoholic drinks consumed, EO No. 22 did not reduce the number of smokers and drinkers per household as may be anticipated by the implementation of EO No. 22.

Table 2 shows this succinctly. A careful examination of Table 2 reveals that the average number of smokers and drinkers per household actually increased after implementation of EO No. 22. Before implementation of EO No. 22, for instance, the average number of smokers and drinkers per household was 3.78 and 3.69 respectively. After implementation of EO No. 22, the average figures increased to 3.90 and 3.82 respectively. The differences in the averages are statistically significant.

Earlier in this article, the issue of whether families would channel allocation of family funds from smoking and drinking to savings or other family expense items socially viewed as beneficial as a result of the implementation of EO No. 22 was raised. Data in our possession allows us now to assess the realization of that expectation.

Table 3 is a summary of the percent distribution of the households surveyed which reported their savings and the amount of their savings before and after EO No. 22. Half (50 percent), of the household respondents reported having no savings before and after implementation of EO No. 22. Four and five percent reported having savings of less than P100. Only 2 and 1 percent reported having more than P3,000 savings. It is clear that changes in the savings behavior of the

respondents have not been affected, either positively or negatively. The anticipation of increased savings is therefore not supported by our data.

It is, of course, recognized that savings are largely a function of the presence or absence of extra resources which families can allocate for that purpose and for other expense items. In the absence of any excess resource to be saved, it seems irrational and illogical to expect families with no excess funds to strive to save. Rational analysis dictates that in the absence of excess resources, whatever resources people have will be used for the basic necessities of the family. Perhaps, it is because many of our families have only very limited income that they are unable to save.

However, our cross tabulation of data on the amount of family savings and the number of drinkers and smokers per household studied, reveals a disturbing paradox. Table 4 is a detailed presentation of the cross tabulation of the amount of savings/investments per household and the number of drinkers/smokers per household. The data seem amenable to only one conclusion: the lower the amount of savings in the household, the greater the number of drinkers and smokers in the household; the higher the amount of savings, the lesser number of drinkers and smokers.

Note, for instance, that in households reporting no savings at all, the percentage of drinkers/smokers rises sharply with the number of smokers/drinkers. The intersection of no savings and no drinkers, for example, shows a percentage of 2. The intersection of no savings and one to two smokers and drinkers has 8 percent. The percentage in each intersection of the amount of savings and the number of smokers/drinkers increases sharply to 42 percent as the number of smokers/drinkers in the household reaches more than seven.

On the other hand, the percentage distribution for those who reported having more than P3,000 savings/investments drastically decreased at each intersection of the number of drinkers/smokers from 64 percent in the one to two drinkers/smokers household to 2 percent in the more than seven drinkers/smokers with more than P3,000 savings/investment.

An interesting question is posed by this paradox: Where did the households with no or little savings and with more drinkers/smokers in them, get the money to spend for drinking and smoking? If in fact there were more people in these no savings/investment

households who drink/smoke, there must have been money available somewhere to use in buying cigarettes and alcoholic drinks.

It would appear that in these types of households, when funds are available, tobacco and alcoholic drinks get priority allocation, but savings do not. Arguably, it may also be true, of course, that in these categories of households, the funds, when available, are so limited that saving makes little sense. But it seems to make even less sense for more people in a household to spend what little money is available for alcohol and tobacco.

Table 2. Percent Distribution of Households With Members Who Smoke and Drink—All Cities (N = 2,235)

Number of Members in the Household Who	1985-86	1987-88
Smoke (a)		
None	8	3
1-2	18	20
3-4	42	46
5-6	18	20
7 or more	14	11
Total	100	100
Average Number of Smokers	3.78	3.90
Drink (b)		
None	10	6
1-2	15	16
3-4	48	53
5-6	12	21
7 or more	15	4
Total	100	100
Average Number of Drinkers	3.69	3.82

(a) Regardless of cigarette brand

(b) Includes beer and hard drinks such as Rum, Whiskey, Wine, Brandy, etc.

Note: All percentage figures have been rounded off to 100s.

Table 3. Percent Distribution of Amount of Savings/Investments of Household Sample (N = 2,235)

Amount of Savings/Investments	1985-86	1987-88
None	50	50
Less than P100	4	5
100-500	8	9
501-1,000	10	10
1001-1,500	14	14
1501-2,000	6	5
2001-2,500	4	4
2500-3,000	2	2
More than 3,000	2	1
Total	100	100

Note: All percentage figures have been rounded off to 100s.

Table 4. Cross Tabulation of Amount of Savings/Investments Per Household Sample and Number of Drinkers/Smokers (N=2,235)

Amount of Savings/ Investments	Number of Drinkers & Smokers/HH					Total
	None	1-2	3-4	5-6	> 7	
None	2	8	22	26	42	100
Below P100	6	7	22	26	39	100
P100-500	8	11	20	24	37	100
501-1,000	10	14	20	22	26	100
1,001-1,500	12	20	22	22	24	100
1,501-2,000	14	34	24	22	6	100
2,001-2,500	18	40	28	10	4	100
2,501-3,000	20	61	12	4	3	100
More than 3,000	24	64	8	2	2	100

Note: All percentage figures are rounded off to 100s.

An alternative explanation of this paradox is that most of the drinkers/smokers in households with no savings/investments depended upon the generosity of the *barkada* who generally provide cigarettes and alcoholic drinks to friends who are "unfortunate" (*kinakapus* or *walang wala*) because they lack the funds. This social phenomenon in which drinking/smoking sessions of the *barkada* are events of *pagsasamahan* is rather common in the Philippines and is often adroitly exploited by commercial advertisements of beer and liquor companies. The familiar commercial jingles *iba ang may pinagsamahan* (roughly translated as "sharing makes a difference,"), or the *dalawang beer mucho para sa lahat; sarap para sa lahat*, cannot be ignored in trying to explain this paradox.

Conclusion

The notion of increasing taxation on tobacco products to curb the appetite for smoking and protect the people from the ill effects of smoking is not new. As early as the 1600s, the Monarch of the British Isles, James I, imposed high taxes on tobacco and all tobacco products to discourage buying of the products and protect the people from the harmful effects of smoking (Ravenholt 1990, 213-40). However, James I, could not sustain the policy and had to reduce the taxes on tobacco later. It has been noted also that in England, in spite of the high taxes and the known ill effects of smoking on the physical health of people, smoking continued to be practiced unabated. The high taxes imposed on tobacco during the reign of James I in the 1600s only encouraged the smuggling of the item. In fact, smoking in England increased tremendously, especially among the poor during the period when high taxes on the product were imposed by James I (Ravenholt 1990, 213-40).

In the 1860s, America also tried to raise the taxes on tobacco during the civil war years. As in England, Americans continued to smoke in increasing numbers in spite of the high taxes imposed on this product. Smoking is believed to have originated among the American Indians who grew tobacco long before Columbus set foot on that continent in 1492. It was known to be an ancient practice among the native American Indians and associated with many of their ceremonial celebrations and activities. The use of the Peace Pipe is one Indian custom that involved the use of tobacco (Ravenholt 1990, 213-40).

Very soon, tobacco and smoking was transported to England by the English explorers of America. The practice gained a foothold in England and spread throughout France and other European countries because of Queen Elizabeth who considered smoking as a status symbol (Ravenholt 1990, 213–40). Physicians during the sixteenth and seventeenth century were partly responsible for encouraging smoking among the population in Europe and England. During the great plague that ravished Europe in the 1800s, physicians encouraged smoking on the doubtful reasoning that the practice increased the resistance of people to the pestilence (Tabor 30: 396–99). A physician's description of the medicinal value of tobacco in 1716 shows the state of knowledge on tobacco then:

Tobacco resolves, cleanses, purges, vomits, and stupefies the brain; resists poison and is a very great vulnerary. The external application of the leaves (moistened and beat with a little wine) on the head, easeth megrim, and other pains thereof; to the joints, the pains of the gout; to the hips, the sciatic to the teeth; the toothache; to the skin, it remedies all its deformities and beautifies it . . . it cures all manners of tumors, ulcers, old sores, stings of venomous beasts, punctures of the nerves and tendons, though made of poisoned weapons. . . . taken in wine, it is emetic and cures agues and fits of the mother. . . . bathed around the regions of bladder, it breaks the stone, and easeth the pain thereof. (Tabor 396–99)

However, in 1604, James I, questioned tobacco's medicinal value by calling smoking a:

. . . custome lothsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in black stinking fume thereof nearest resembling the horrible stagian smoke of the pit that is bottomless. (Tabor 396–99)

Yet tobacco consumption increased despite evidence of its harmful effects and the imposition of taxes on it. Since 1604, however, medical knowledge and research on the ill effects of smoking and drinking all over the world has grown by leaps and bounds to support the view of James I. Empirical research on the ill effects of tobacco is generally consistent in the findings that smoking is deleterious to the health of consumers and those who are exposed to smoke from smokers. Nonsmokers exposed to the smoke fumes

coming from smokers are in fact in more danger than those who smoke directly, so the research evidence says.

The effects of tobacco on humans is now generally considered even more devastating than the effects of drinking, and have been equated with the most fearsome plagues that have ravished humanity during this century. Ravenholt (1990, 213–40) puts this view more emphatically thus:

To the most fearsome plagues devastating humanity during this millennium—the Black Death, smallpox, malaria, yellow fever, Asiatic cholera, and tuberculosis—is now added the man-made plague: tobacco, the foremost scourge of the twentieth century.

Tobaccosis is a term coined by Ravenholt to denote, collectively, all those diseases resulting from the smoking, chewing, and snuffing of tobacco, and from the breathing of tobacco smoke including cancers of the mouth, nasopharynx, larynx, trachea, bronchi, lungs, esophagus, stomach, liver, pancreas, kidney, bladder, prostate, cervix, and leukemia; atherosclerosis of the cardiovascular system; coronary heart disease, cardiomyopathy, aortic and other aneurysms, cerebrovascular hemorrhages and blockages, renal failure, etc.

It appears, however, that neither the fear of the diseases associated with tobacco and alcohol, nor the high prices imposed by the state on this substance, are sufficient deterrents to prevent people from consuming them in harmful quantities. In the Philippines, even physicians cannot be held up as models. Dr. Tranquilino Elicano (1987, 7; 1991, 7; 1988, 7), a leading figure in the fight against smoking in the Philippines, reports that 63 percent of the male doctors and 37 percent of the female physicians in the country are smokers (Elicano 1987, 7). This finding indicates once again that knowledge and awareness are not necessarily translated into actual behavior.

Data gathered in this study prevent us from being too optimistic that higher taxes can help curb the consumption of tobacco and alcohol in the Philippines. The following quotation about the dangers posed by smoking, seems a fitting conclusion.

Without reductions in early smoking (starts) or smoking persistence, there will probably be over ten million deaths per year during the second quarter (2025–2049) of the next century. . . . This would mean that over 200 million of today's children and teenagers will be killed by tobacco as will a comparable number of today's adults . . . During

the 1990s smoking will kill roughly one million people a year in less developed countries and about two million in the industrialized nations. Probably in 2020 . . . global mortality will begin to exceed 10 million annually This is the greatest human disaster of our time. (Mintz 1991, 7)

There is no evidence that "sin taxes" will reduce or solve the problem in the Philippines.

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