

# **Free Television and Digital Television: Food Advertising to Children in Thailand**

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**Food and Nutrition Policy for Health Promotion [FHP]**

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## **1. Introduction**

### **1.1 Situation**

Advertising is a marketing activity and plays an important role in most businesses, especially in for-profit businesses [1]. It also is a marketing tool used by businesses to affect sales growth and stimulate demand. Today, snack and beverage firms compete with one another to increase their firms' profit and market shares, thereby fuelling competition. The marketing of these products induce consumption values among teenagers in accordance with the teenagers' preference. For example, food industries try to use promotion techniques, such as exchange purchased packages for toys, including dolls, robots, give-aways, colorful packaging, or popular cartoon characters, to attract children and occasionally use children as a product presenters to further incentivize children's consumption [2].

Euromonitor, the marketing research organization, found that sales are driven by snacks targeting children and adolescents aged 5-24 years old [3]. In addition, Thai clamp-down on snack food ads loom survey in 2004 found that the main factor promoting enormous snack consumption among children was the influence of television advertising as television was the main channel for advertisement. Moreover, the survey found that 67 varieties of snack advertising broadcasted on television were found in the morning programs during the weekend (7:30-10:30) to which children were exposed the most[4].

Thai and international evidence reported that 31.2% of children spend the majority of their time watching television and eating snacks [5]. Children would see food advertisements four times in an hour, which can increase the likelihood of rising demand for snacks advertised to children. Other promotion techniques, including discounts, exchanges, give-aways, and bonus goods, further impacted the child's decision to purchase these snacks [6]. Moreover, children who recalled favorable food brands were more likely to purchase and eat snacks from that preferred brand [7-9]. Therefore, advertising was but one factor that had influence on the eating behaviours of children and impacts on their health. Consequently, sweet-toothed children become obese, leading to increased restlessness, attention deficit hyperactivity disorder (ADHD), failure of heart and lung functions, and metabolic disorders, including diabetes, hyperlipidemia, hypertension, heart disease, and osteoarthritis[10].

In the past, many Thai organizations have studied and researched food marketing and advertising, such as the Health Consumer Protection Program and Media Monitor. However, there is a need for surveillance and monitoring systems on Thai children and youth to continuously track their consumption of food and beverages with high sugar, fat, and sodium content. Hence, our study aimed to determine the form and content of unhealthy food and beverage advertising that influences dietary habits of children and youth; this also has the capacity to partially contribute to improvement of continuous monitoring system of these products and their effects. The results of this study will subsequently be obtained to support an approach to deal with the health impact of unhealthy food and drink marketing and advertising toward children and the youth, and ultimately drive the development and implementation of relevant measures and policies in the future.

### **1.2 Study aims**

The objective of this study was to explore food and beverage advertising on children's television programs, on both Free TV and Digital TV.

## 2. Methods

### 2.1 Sampling

This study nationwide food and beverage advertisements targeting children and youth on Free TV and Digital TV in Thailand (Table1).

**Table 1:** Sampling design and methods

| Approach                      | Recommendations from the INFORMAS paper <sup>1</sup> | Food Watch– Free TV   | Food Watch– Digital TV (commercial)     | Note  |
|-------------------------------|--|---|---|---|
| <b>Sampling frame</b>         |  |   |   |   |
| <b>TV</b>                     | Commercial, cable, satellite                         | Free TV   | Digital TV (commercial)                 |   |
| <b>channel</b>                | Popular channel                                      | All channel of Free TV (4 channels)   | Kids and families channels (3 channels) |   |
| <b>Food and non-food ads.</b> | All  | All   | All                                     |   |
| <b>Food classification</b>    | Healthy and unhealthy                                | Healthy and unhealthy   | Healthy and unhealthy                   | Nutrient Profiling  |
| <b>Viewing times</b>          | Peak view  | Specific time<br>[weekday: 5 hours]<br>[weekend: 9 hours]<br>[total 86 hours] | 24 hours<br>[total 168 hours]           | Free TV: The Notification of the Office of the National Broadcasting and telecommunications |

<sup>1</sup> Monitoring food and non-alcoholic beverage promotions to children (pages 59–69) *B. Kelly, L. King, L. Baur, M. Rayner, T. Lobstein, C. Monteiro, J. Macmullan, S. Mohan, S. Barquera, S. Friel, C. Hawkes, S. Kumanyika, M. L'Abbé, A. Lee, J. Ma, B. Neal, G. Sacks, D. Sanders, W. Snowdon, B. Swinburn, S. Vandevijvere, C. Walker and INFORMAS*

| Approach                | Recommendations from the INFORMAS paper <sup>1</sup>                                | Food Watch– Free TV  | Food Watch– Digital TV (commercial)  | Note   |
|-------------------------|---|--|--|--|
|                         |   |  |  | Commission; NBTC   |
| <b>Time</b>             | 7.00-21.00 daily  | Weekday: 3.00-8.00 pm daily<br>Weekend: 06.00-10.00 am and 3.00-8.00 pm daily  | 0.00-24.00 daily or all day  | Free TV: The Notification of the Office of the National Broadcasting and telecommunications Commission; NBTC             |
| <b>Period or length</b> | Min: 4 days or 2 weekdays and 2 weekends  | 2 weeks (everyday)<br>[March 24-April 6, 2014]   | 1 week (everyday)<br>[October 7-13, 2014]  |  |
| <b>Target group</b>     | Children  | Children [<15 years] and youth [<18 years]   | Children [<15 years] and youth [<18 years]   | Free and Digital TV: The Notification of the Office of the National Broadcasting and telecommunications Commission; NBTC |
| <b>Activities</b>       | Food promotion, which encompasses advertising, publicity, and some sales promotions | Food promotion, which encompasses advertising, publicity, and some sales promotions.<br>Spot, tie-in, product placement, event | Food promotion, which encompasses advertising, publicity, and some sales promotions.<br>Spot, tie-in, product placement, event |  |

| Approach                      | Recommendations from the INFORMAS paper <sup>1</sup>   | Food Watch– Free TV  | Food Watch– Digital TV (commercial)   | Note |
|-------------------------------|--|--|---|------|
|                               |  | marketing, and sponsorships  | marketing, and sponsorships   |      |
| <b>Approach</b>               | Recommendations from the INFORMAS paper  | Recommendations from the INFORMAS paper  | Recommendations from the INFORMAS paper   |      |
| <b>Data collection</b>        |  |  |   |      |
| <b>Detail</b>                 | Brand, products, channel, showtime, nature of product (food or not), food type   | Brand, company, products, channel, program, showtime, food type, and content of ad and speech of MC or presenter | Brand, company, products, channel, program, showtime, nature of product (food or not), food type, and content of ad and speech of MC or presenter |      |
| <b>Record</b>                 | Video file by using a personal video recorder (PVR) or by using Windows Media Centre together with a TV tuner to record live TV. | Video file by using a MM's video recorder (DVD)  | Video file by using a MM's video recorder (DVD)   |      |
| <b>Measurement indicators</b> |  |  |   |      |

| Approach            | Recommendations from the INFORMAS paper <sup>1</sup>  | Food Watch– Free TV  | Food Watch– Digital TV (commercial)   | Note |
|---------------------|---|--|---|------|
| <b>Quantitative</b> | <ul style="list-style-type: none"> <li>• Rate of overall ads</li> <li>• Rate of food vs. non-food ads</li> <li>• Rate of unhealthy food ads vs. healthy food ads</li> <li>• Rate of ads for food groups and indicator foods</li> <li>• Rate of food ads with persuasive promotional techniques</li> </ul> | <ul style="list-style-type: none"> <li>• Rate of food vs. non-food ads</li> <li>• Rate of unhealthy food ads vs. healthy food ads</li> <li>• Rate of ads for food groups and indicator foods</li> <li>• Rate of food ads with persuasive promotional techniques</li> </ul> | <ul style="list-style-type: none"> <li>• Rate of overall ads</li> <li>• Rate of food vs. non-food ads</li> <li>• Rate of unhealthy food ads vs. healthy food ads</li> <li>• Rate of ads for food groups and indicator foods</li> <li>• Rate of food ads with persuasive promotional techniques</li> </ul> |      |

## 2.2 Coding

All advertisements were coded by using the first INFORMAS version of the TV protocol.

## 2.3 Data analysis

All analysis was conducted using SPSS 18.0.

### 3. Results

#### 3.1. Overall advertising by channel

On Free TV, 3,240 advertisements were identified over the period of 14 days, of which 41.9% were for food and drinks, and 58.1% were for non-food and non-drink products. The overall rate of advertising was 19.2 advertisements per hour, per channel. Channel 3 had the highest rate of overall advertising, at 30 advertisements per hour, per channel (Table 2).

On Digital TV, 7,838 advertisements were identified, of which 8.9% were for food and drinks, and 91.1% were for non-food and non-drink products. The overall rate of advertising was 15.6 advertisements per hour, per channel. 3 Family had the highest rate of overall advertising, at 17.9 advertisements per hour, per channel (Table 2).

Together, both Free and Digital TV yielded 11,078 advertisements. The overall rate of advertising was 17.4 advertisements per hour, per channel (Table 2).

**Table 2:** Rate of overall advertising by channel

| TV                | Total advertisements | Rate of advertisements (ads/hr/channel) |
|-------------------|----------------------|---|
| <b>Free TV</b>    | <b>3,240</b>         | <b>19.2</b>                             |
| 3                 | 1,313                | 30.0                                    |
| 5                 | 296                  | 7.8                                     |
| 7                 | 1,109                | 25.4                                    |
| MCOT              | 522                  | 13.7                                    |
| <b>Digital TV</b> | <b>7,838</b>         | <b>15.6</b>                             |
| 3 Family          | 3,005                | 17.9                                    |
| LOCA              | 2,343                | 13.9                                    |
| MCOT Family       | 2,490                | 14.8                                    |
| <b>Overall</b>    | <b>11,078</b>        | <b>17.4</b>                             |

Herein, the term ‘food advertisement’ refers to advertisements for food or drink products, food retailers (e.g., Supermarket) carrying food products, food retailer brand (no food products), restaurant/quick service restaurant product advertisements, and restaurant/quick service restaurant brand (no food products). The most frequently advertised products on Free TV were food or drink products (41% of all advertisements), followed by restaurant/quick service restaurant brand (no food products) (0.7%), and food retailer brand (no food products) (0.2%). On the other hand, the most frequently advertised products on Digital TV were food or drink product (8.7% of all advertisements), followed by restaurant/quick service restaurant food product advertisements (0.1%), and restaurant/quick service restaurant brand (no food products) (0.1%) (Table 3).



**Table 3: Food advertisements by channel**

| TV             | Most frequently advertised products [n] |   |  |   |  |                      |
|----------------|---|---|--|---|--|----------------------|
|                | Food or drink product                   | Food retailer (e.g., Supermarket) with food product | Food retailer brand (no food products) | Restaurant / quick service restaurant food product advertisements | Restaurant / quick service restaurant brand (no food products) | Non-food product     |
| <b>Free TV</b> | <b>41% [1,330]</b>                      | <b>0.0% [1]</b>                                     | <b>0.2% [6]</b>                        | <b>[0]</b>  | <b>0.7% [22]</b>   | <b>58.1% [1,881]</b> |
| 3              | 35.7%                                   | 0.1%  | 0.2%                                   | -   | 0.7%   | 63.3%                |
| 5              | 28.4%                                   | 0.0%  | 0.0%                                   | -   | 0.0%   | 71.6%                |
| 7              | 47.1%                                   | 0.0%  | 0.3%                                   | -   | 0.9%   | 51.8%                |
| MCOT           | 48.9%                                   | 0.0%  | 0.0%                                   | -   | 0.6%   | 50.6%                |
| <b>Digital</b> | <b>8.7% [681]</b>                       | <b>0.0% [1]</b>                                     | <b>[0]</b>                             | <b>0.1% [7]</b>   | <b>0.1% [4]</b>  | <b>91.2% [7,145]</b> |
| 3 Family       | 12.5%                                   | 0.0%  | -                                      | 0.2%  | 0.1%   | 87.2%                |
| LOCA           | 5.0%                                    | 0.0%  | -                                      | 0.0%  | 0.0%   | 95.0%                |
| MCOT Family    | 7.5%                                    | 0.0%*   | -                                      | 0.1%  | 0.0%   | 92.4%                |
| <b>Overall</b> | <b>18.2%</b>                            | <b>0.0%</b>   | <b>0.1%</b>                            | <b>0.1%</b>   | <b>0.2%</b>  | <b>81.5%</b>         |

\* n=1

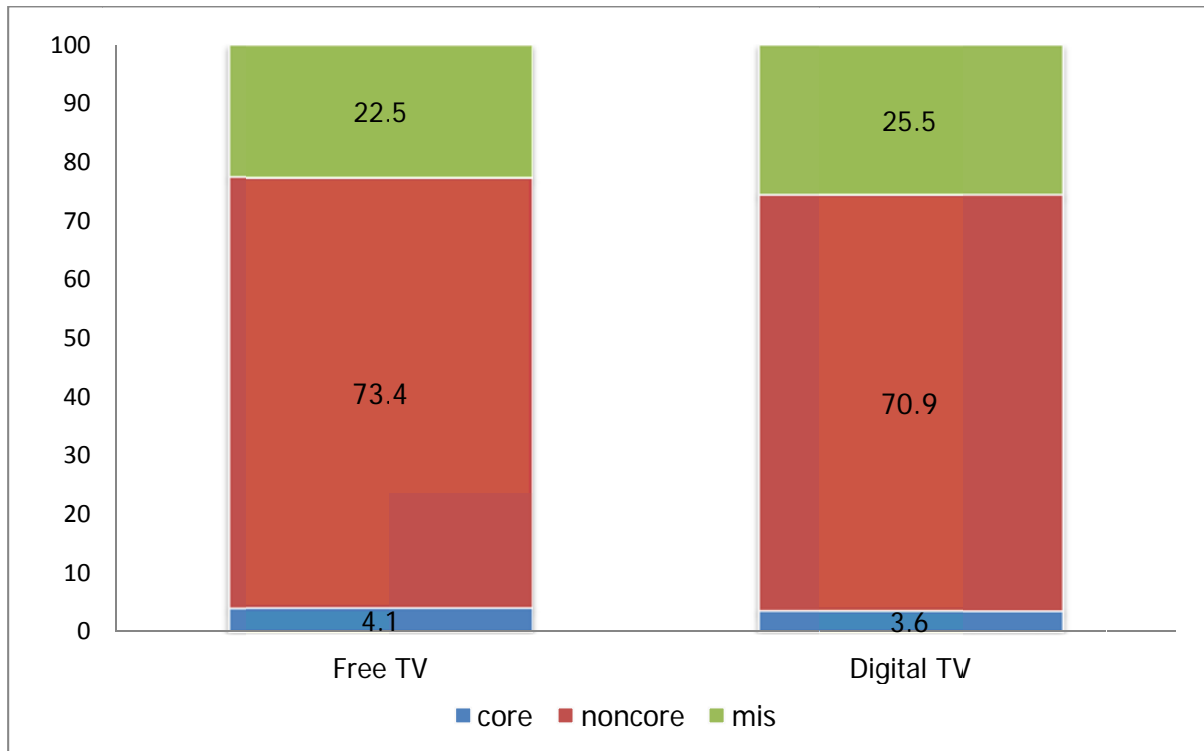
**3.2. Overall food advertising by channel**

Overall, the average rate of food advertising across the sample was 4.8 food advertisements per hour, per channel. Channel 7 had the highest rate of food advertising on Free TV at 12.8 food advertisements per hour, per channel, while the 3 Family had the highest rate of food advertising on Digital TV at 2.3 food advertisements per hour, per channel (Table 4).

**Table 4: Rate of overall food advertising by TV**

| TV             | Total food advertisements | Rate of food advertisements (Food ads/hr/channel) |
|----------------|---------------------------|---|
| <b>Free TV</b> | <b>1,359</b>              | <b>8.2</b>  |
| 3              | 482                       | 11.0  |
| 5              | 84                        | 2.3   |
| 7              | 535                       | 12.8  |
| MCOT           | 258                       | 6.8   |
| <b>Digital</b> | <b>693</b>                | <b>1.4</b>  |
| 3 Family       | 386                       | 2.3   |
| LOCA           | 117                       | 0.7   |
| MCOT Family    | 190                       | 1.1   |
| <b>Overall</b> | <b>2,052</b>              | <b>4.8</b>  |

The difference in proportion of food groups advertised between Free TV and Digital TV was not much. The largest proportion of food advertisements broadcasted across all TV was for non-core foods, contributing approximately 70% of all food advertisements across the sample. Additionally, Free and Digital TV had the lowest proportion of core food advertisements (approximately 4%) (Figure 1).



**Figure 1:** Proportion of major food groups advertised by TV

Overall, the most frequently advertised food product types on Free TV were sweetened drinks (7.4%), full cream milks and yoghurts (5.3%), sweet snack foods (4.8), and savoury snack foods (3.9%). The highest rate of sugar-sweetened drinks was recorded at 5.7 food advertisements per hour, per channel (Table 5).

**Table 5:** Frequency of advertisements for food and beverage types, by TV

| food and beverage types  | Rate of advertisements (ads/h/channel) [n] |                  |
|--|--|------------------|
|  | Free TV                                    | Digital TV       |
| <b>Non-core and unhealthy food</b>   | <b>24.3 [997]</b>                          | <b>2.9 [491]</b> |
| High sugar and/or low fibre breakfast cereals (>20g sugars /100g or<5g dietary fibre /100g)  | 0.6  | 0.0              |
| Flavoured/fried instant rice and noodle products   | 1.6  | 0.0              |
| Sweet breads, cakes, muffins, sweet buns (e.g. lotus seed, custard, red bean), sweet biscuits (include egg rolls), sweet glutinous rice balls or cakes, high fat savoury biscuits, pies and pastries, sweet sticky rice or rice pudding. | 1.1  | 0.1              |
| Meat and meat alternatives processed or preserved in salt – include frankfurts, seafood sticks, jellyfish salad, tinned meats, and all preserved ready to eat meats, poultry, fish, tofu and egg products.                               | 0.1  | 0.2              |

| food and beverage types   | Rate of advertisements (ads/h/channel) [n] |                 |
|---|--|-----------------|
|   | Free TV                                    | Digital TV      |
| Sweet snack foods - include jelly, sugar-coated dried fruits or nuts, nut or seed based bars and slices, sweet rice bars, and tinned fruit in syrup   | 4.1  | 0.1             |
| Savoury snack foods (added salt or fat) - includes chips, dried spicy peas, fruit chips, savoury crisps, extruded snacks, popcorn (exclude plain), salted or coated nuts, other fried snacks (e.g. shrimp crackers) | 3.0  | 0.5             |
| Fruit juice/drinks (<98% fruit)   | 1.0  | 0.1             |
| Full cream milks and yoghurts (> 3g fat /100g) and cheese (>15g fat /100g, and high salt cheeses, including haloumi and feta) and their alternatives e.g. Soy   | 4.1  | 0.5             |
| Ice cream, iced confection and desserts   | 0.9  | 0.3             |
| Chocolate and candy - includes marshmallows, sugar (all types), and chewing gums (exclude sugar free varieties)   | 0.0  | 0.4             |
| Fast food ( <b>not only</b> healthier options advertised), e.g. burgers, fries, soft drinks<br><i>Include if some but not all the foods/drinks advertised are healthier options</i>                                 | 1.3  | 0.1             |
| High fat/salt meals - frozen or packaged meals (>6g saturated fat /serve, >900mg sodium /serve). Also include steamed buns (exclude sweet buns), wontons and dumplings <i>usually fried before consumption.</i>     | 0.2  | 0.0             |
| Other high fat/salt products– include meat/fish/bean pastes, XO sauce, butter and animal fats, high fat savoury sauces (>10g fat /100), soups (>2g fat /100g and all dehydrated).                                   | 0.7  | 0.1             |
| Sugar sweetened drinks - include soft drinks, sweetened tea drinks, sports/electrolyte drinks, powdered flavour additions (e.g. Nesquik, sweetened tea or coffee powders).  | 5.7  | 0.6             |
| Alcohol   | 0.0  | 0.0             |
| <b>Core and healthy food</b>  | <b>1.3 [56]</b>                            | <b>0.1 [25]</b> |
| Breads, rice and rice products without added fat, sugar or salt, noodles (exclude fried), plain starch products (e.g. starch balls), plain biscuits and crackers  | 0.1  | 0.0             |
| Low sugar and high fibre breakfast cereals (<20g sugar /100g and >5g dietary fibre /100g)   | 0.0  | 0.0             |
| Fruits and fruit products without added fats, sugars or salt (include fresh, tinned in natural juice, and dried), include fruit juices containing ≥98% fruit  | 0.0  | 0.0             |
| Vegetables and vegetable products without added fats, sugars or salt (include fresh, tinned, and dried), including plain seaweed  | 0.0  | 0.02            |
| Milks and yoghurts (≤3g fat /100g), cheese (≤15g fat /100g) and their alternatives e.g. Soy (include probiotic drinks).   | 0.7  | 0.0             |
| Meat and meat alternatives - include meat, poultry, fish, legumes, tofu, eggs and raw unsalted nuts   | 0.0  | 0.0             |
| Oils high in mono- or polyunsaturated fats, (olive oil, sunflower oil, soybean oil, plant based margarines and spreads), and low  | 0.0  | 0.0             |

| food and beverage types  | Rate of advertisements (ads/h/channel) [n] |                  |
|--|--|------------------|
|  | Free TV                                    | Digital TV       |
| fat savoury sauces (<10g fat /100g).   |  |                  |
| Low fat/salt meals - include frozen or packaged meals (≤6g saturated fat /serve, ≤900mg sodium /serve), soups (<2g fat /100g, exclude dehydrated), sandwiches, mixed salads. Also include steamed buns (exclude sweet buns), wontons and dumplings <i>not usually fried before consumption</i> . | 0.0  | 0.0              |
| Healthy Snacks – must be based on <b>core foods</b> (i.e. fruit, vegetables, grains, dairy, soy, meats or alternatives) <b>and contain</b> < 600kJ / serve, <3g saturated fat /serve and <200mg sodium /serve  | 0.0  | 0.0              |
| Baby foods (exclude milk formulae)   | 0.0  | 0.0              |
| Bottled water (include unflavoured mineral and soda waters)  | 0.6  | 0.1              |
| <b>Miscellaneous food/ food-related</b>  | <b>7.2 [306]</b>                           | <b>1.1 [177]</b> |
| Recipe additions (including soup cubes, oils, dried herbs and seasonings)<br><i>Note: these foods are not usually consumed alone. They are added to flavour meals.</i>   | 0.6  | 0.1              |
| Vitamin/mineral or other dietary supplements, and sugar-free chewing gum   | 1.6  | 0.1              |
| Tea and coffee (excluding sweetened powder-based teas or coffees)  | 0.8  | 0.1              |
| Baby and toddler milk formulae   | 1.6  | 0.6              |
| Fast food ( <b>only</b> healthier options advertised), e.g. grilled chicken wrap, water, fruit slices  | 0.7  | 0.0              |
| Fast food ( <b>only</b> healthier options advertised), e.g. burgers, fries, soft drinks  | 1.3  | 0.0              |
| Fast-food restaurant ( <b>NO</b> foods or drinks advertised)   | 0.5  | 0.1              |
| Local restaurant   | 0.0  | 0.0              |
| Supermarkets ( <b>only</b> core and healthy foods advertised)  | 0.0  | 0.0              |
| Supermarkets ( <b>not only</b> core and healthy foods advertised)  | 0.0  | 0.0              |
| Supermarkets ( <b>NO</b> foods or drinks advertised)   | 0.0  | 0.0              |

Free TV had the highest rate of non-core advertisements, with almost 24.3 non-core food advertisements per hour, compared to Digital TV, which had only 2.9 non-core food advertisements per hour (Table 6).

**Table 6:** Rate of advertising for major food groups by TV

| TV                | Rate of advertisements<br>(Food ads/hr/channel) |            |                     |
|-------------------|---|------------|---------------------|
|                   | Non-core foods                                  | Core foods | Miscellaneous foods |
| <b>Free TV</b>    | <b>24.3</b>                                     | <b>1.3</b> | <b>7.2</b>          |
| 3                 | 7.1   | 0.7        | 3.2                 |
| 5                 | 1.5   | 0.3        | 0.5                 |
| 7                 | 9.8   | 0.2        | 2.7                 |
| MCOT              | 5.9   | 0.1        | 0.8                 |
| <b>Digital TV</b> | <b>2.9</b>                                      | <b>0.1</b> | <b>1.1</b>          |
| 3 Family          | 1.5   | 0.1        | 0.7                 |
| LOCA              | 0.4   | 0.0        | 0.3                 |
| MCOT Family       | 1.0   | 0.0        | 0.1                 |
| <b>Overall</b>    | <b>13.6</b>                                     | <b>6.6</b> | <b>4.2</b>          |

Sugary drinks were the most frequently advertised food/drink type, contributing 17.7% of all food advertisements on Free TV. This was followed by advertisements for full cream milks and yoghurts (12.6%), sweet snacks (11.5%), savoury snacks (9.3%), and baby formula (5.1%). For Digital TV, baby formula was the most frequently advertised food/drink type, contributing 15.7% of all food advertisements. This was followed by advertisements for sugary drinks (13.7%), savoury snacks (11.7%), full cream milks and yoghurts (11.4%), and chocolate and candy (9.5%) (Table 7).

**Table 7:** Top five food groups advertised by TV

| TV             | Most frequently advertised products    |  |  |                                      |  |
|----------------|--|--|--|--------------------------------------|--|
|                | 1st                                    | 2nd  | 3rd                                    | 4th                                  | 5th  |
| <b>Free TV</b> | <b>17.7%</b><br><b>Sugary drinks</b>   | <b>12.6%</b><br><b>Full cream milks and yoghurts</b> | <b>11.5%</b><br><b>Sweet snacks</b>    | <b>9.3%</b><br><b>Savoury snacks</b> | <b>5.1%</b><br><b>Baby formula and Vitamin/Supplements</b> |
| 3              | 20.9%<br>Sugary drinks                 | 13.7%<br>Full cream milks and yoghurts               | 7%<br>Vitamin/Supplements              | 6.8%<br>Fast food restaurant         | 6.6%<br>Baby formula                                       |
| 5              | 19.3%<br>Full cream milks and yoghurts | 18.1%<br>Sugary drinks                               | 8.4%<br>Ice cream and desserts         | 8.4%<br>Fast food (unhealthy)        | 8.4%<br>Water  |
| 7              | 15.7%<br>Sugary drinks                 | 15.5%<br>Sweet snacks                                | 12.9%<br>Full cream milks and yoghurts | 10.3%<br>Savoury snacks              | 6.9%<br>Fried instant noodles                              |
| MCOT           | 22.1%<br>Sweet snacks                  | 15.5%<br>Sugary drinks                               | 15.1%<br>Savoury                       | 12%<br>Sweet                         | 7.8%<br>Full cream milks and                               |

| TV                | Most frequently advertised products  |  |  |  |   |
|-------------------|--------------------------------------|--|--|--|---|
|                   | 1st                                  | 2nd  | 3rd                                    | 4th  | 5th   |
|                   |                                      |  | snacks                                 | bread/cakes  | yoghurts  |
| <b>Digital TV</b> | <b>15.7%</b><br><b>Baby formula</b>  | <b>13.7%</b><br><b>Sugary drinks</b>                 | <b>11.7%</b><br><b>Savoury snacks</b>  | <b>11.4%</b><br><b>Full cream milks and yoghurts</b> | <b>9.5%</b><br><b>Chocolate and candy</b>             |
| 3 Family          | 22.1%<br>Sugary drinks               | 16.6%<br>Baby formula                                | 13.8%<br>Ice cream and desserts        | 7%<br>Chocolate and candy                            | 6.5%<br>Full cream milks and yoghurts                 |
| LOCA              | 38.1%<br>Baby formula                | 28%<br>Meat and meat alternatives processed          | 11.9%<br>Full cream milks and yoghurts | 7.6%<br>Savoury snacks                               | 5.9%<br>Chocolate and candy                           |
| MCOT Family       | 27.9%<br>Savoury snacks              | 21.1%<br>Full cream milks and yoghurts               | 16.8%<br>Chocolate and candy           | 6.3%<br>Sweet snacks                                 | 4.7%<br>Ice cream and desserts and Fruit juice/drinks |
| <b>Overall</b>    | <b>16.3%</b><br><b>Sugary drinks</b> | <b>12.2%</b><br><b>Full cream milks and yoghurts</b> | <b>10.1%</b><br><b>Savoury snacks</b>  | <b>8.7%</b><br><b>Baby formula</b>                   | <b>8.4%</b><br><b>Sweet snacks</b>                    |

### 3.3. Food advertising by program category

Free TV had the highest percentage of food advertisements, with almost 73.4% non-core food advertisements, compared to Digital TV, which had only 71% non-core food advertisements (Table 8).

**Table 8:** Percentage of food advertisements on Free TV and Digital TV by program categories

| TV                    | Percentage of food advertisements |                  |                     |
|-----------------------|-----------------------------------|------------------|---------------------|
|                       | Non-core foods                    | Core foods       | Miscellaneous foods |
| <b>Free TV</b>        | <b>73.4% [997]</b>                | <b>4.1% [56]</b> | <b>22.5 [306]</b>   |
| Comedy                | 70.6%                             | 6.2%             | 23.2%               |
| Soap opera            | 64.7%                             | 4.6%             | 30.7%               |
| Reality               | 60.4%                             | 7.5%             | 32.1%               |
| Entertainment/variety | 66.7%                             | 9.5%             | 23.8%               |
| Game                  | 75.0%                             | 6.6%             | 18.4%               |
| <b>Children's</b>     | <b>82.0%</b>                      | <b>1.6%</b>      | <b>16.4%</b>        |
| Infomercial           | 100.0%                            | 0.0%             | 0.0%                |
| Other [cooking]       | 83.4%                             | 0.0%             | 16.6%               |
| <b>Digital TV</b>     | <b>70.9% [491]</b>                | <b>3.6% [23]</b> | <b>25.5% [177]</b>  |
| Drama                 | 57.9%                             | 0.0%             | 42.1%               |
| Movie                 | 10.3%                             | 0.0%             | 89.7%               |
| Soap opera            | 52.2%                             | 6.7%             | 41.1%               |
| Music/music video     | 0.0%                              | 0.0%             | 100.0%              |
| News/commentary       | 64.5%                             | 5.1%             | 30.4%               |

| TV                    | Percentage of food advertisements |             |                     |
|-----------------------|-----------------------------------|-------------|---------------------|
|                       | Non-core foods                    | Core foods  | Miscellaneous foods |
| Talk shows            | 56.3%                             | 1.4%        | 42.3%               |
| Reality               | 68.0%                             | 0.0%        | 32%                 |
| Sports                | 100.0%                            | 0.0%        | 0.0%                |
| Entertainment/variety | 70.0%                             | 6.7%        | 23.3%               |
| Documentary           | 100.0%                            | 0.0%        | 0.0%                |
| <b>Children's</b>     | <b>89.8%</b>                      | <b>0.7%</b> | <b>9.5%</b>         |
| Infomercial           | 100.0%                            | 0.0%        | 0.0%                |
| Other [cooking]       | 53.4%                             | 13.7%       | 32.9%               |
| <b>Overall</b>        | <b>72.6%</b>                      | <b>3.9%</b> | <b>23.5%</b>        |

The program categories that contained the highest proportion of food advertisements on Free TV overall were children's programs (36.7% of all advertisements during these programs were for food), soap operas (24%), comedy (15.9%), reality shows (10.2%), and game shows (6.2%). Overall, the program categories that contained the highest proportion of food advertisements on Digital TV were children's programs (26.5% of all advertisements during these programs were for food), other (15.8%), news (13.1%), talk shows (8.7%) and movies (7.9%)(Table 9).

**Table 9:** Top five program categories with the highest proportion of food advertisements by TV

| TV                | Top five program categories        |                                   |                                   |                                  |                                  |
|-------------------|------------------------------------|-----------------------------------|-----------------------------------|----------------------------------|----------------------------------|
| <b>Free TV</b>    | <b>36.7%</b><br><b>Children's</b>  | <b>24.8%</b><br><b>Soap opera</b> | <b>15.9%</b><br><b>Comedy</b>     | <b>10.2%</b><br><b>Reality</b>   | <b>6.2%</b><br><b>Game</b>       |
| 3                 | 34.6%<br>Soap opera                | 27.1%<br>Comedy                   | 15.1%<br>Reality                  | 11.5%<br>Game                    | <b>7.6%</b><br><b>Children's</b> |
| 5                 | 36.1%<br>Entertainment<br>/variety | <b>20.6%</b><br><b>Children's</b> | 18.2%<br>Comedy                   | 15.9%<br>Reality                 | 5.1%<br>Other                    |
| 7                 | <b>68.6%</b><br><b>Children's</b>  | 31.4%<br>Soap opera               | -                                 | -                                | -                                |
| MCOT              | <b>51%</b><br><b>Children's</b>    | 20.3%<br>Comedy                   | 16.7%<br>Reality                  | 9.4%<br>Game                     | 2.7%<br>Infomercial              |
| <b>Digital TV</b> | <b>26.5%</b><br><b>Children's</b>  | <b>15.8%</b><br><b>Others</b>     | <b>13.1%</b><br><b>News</b>       | <b>8.7%</b><br><b>Talk shows</b> | <b>7.9%</b><br><b>Movie</b>      |
| 3 Family          | 15.6%<br>Talk shows                | 15.2%<br>Other                    | <b>13.6%</b><br><b>Children's</b> | 13%<br>News                      | 11.9%<br>Drama                   |
| LOCA              | <b>22.4%</b><br><b>Children's</b>  | 20.2%<br>Movie                    | 20%<br>News                       | 13.4%<br>Other                   | 6.3%<br>Soap opera               |
| MCOT Family       | <b>46%</b><br><b>Children's</b>    | 18.7%<br>Other                    | 9.4%<br>Documentary               | 6.8%<br>News                     | 5.8%<br>Reality                  |
| <b>Overall</b>    | <b>29.5%</b><br><b>Children's</b>  | <b>11.4%</b><br><b>Soap opera</b> | <b>11.3%</b><br><b>Other</b>      | <b>9.3%</b><br><b>News</b>       | <b>6.2%</b><br><b>Talk shows</b> |

### 3.4. Food advertising during weekdays versus weekends

The overall rate of food advertising was 2 food advertisements per hour, per channel on weekdays, and 2.9 on weekends. For Free TV, with the exception of Channel 3, the rate of food advertising was highest on weekends. There was no difference in the rate of food advertising on Digital TV between weekdays and weekends (Table 10).

**Table 10:** Rate of food advertising on weekdays and weekends by TV

| TV                | Weekdays<br>(Food ads/hr/channel) | Weekends<br>(Food ads/hr/channel) |
|-------------------|-----------------------------------|-----------------------------------|
| <b>Free TV</b>    | <b>3.2</b>                        | <b>5.0</b>                        |
| 3                 | 6.1                               | 4.9                               |
| 5                 | 0.1                               | 2.1                               |
| 7                 | 5.4                               | 7.4                               |
| MCOT              | 1.1                               | 5.7                               |
| <b>Digital TV</b> | <b>0.7</b>                        | <b>0.7</b>                        |
| 3 Family          | 1.4                               | 0.9                               |
| LOCA              | 0.5                               | 0.2                               |
| MCOT Family       | 0.3                               | 0.9                               |
| <b>Overall</b>    | <b>2.0</b>                        | <b>2.9</b>                        |

Overall, the rate of non-core food advertising was higher on weekends compared to weekdays (2.7 vs. 1.5 ads per hour, per channel, respectively) (Table 11).

**Table 11:** Rate of advertising of major food groups on weekdays and weekends by TV

| TV                | Weekdays (ads/hr) |                 |                  | Weekends (ads/hr) |                 |                  |
|-------------------|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
|                   | Non-core          | Core            | Miscellaneous    | Non-core          | Core            | Miscellaneous    |
| <b>Free TV</b>    | <b>2.2 [442]</b>  | <b>5.4 [27]</b> | <b>0.8 [163]</b> | <b>3.9 [555]</b>  | <b>3.0 [27]</b> | <b>1.0 [143]</b> |
| 3                 | 4.0               | 2.8             | 1.9              | 3.2               | 1.7             | 1.4              |
| 5                 | 0.1               | 0.6             | 0.0              | 1.4               | 0.7             | 0.5              |
| 7                 | 3.9               | 1.8             | 1.3              | 5.9               | 0.2             | 1.4              |
| MCOT              | 0.9               | 0.2             | 0.1              | 4.9               | 0.4             | 0.7              |
| <b>Digital TV</b> | <b>0.8 [270]</b>  | <b>0.01 [3]</b> | <b>0.2 [82]</b>  | <b>1.5 [221]</b>  | <b>0.2 [22]</b> | <b>0.7 [95]</b>  |
| 3 Family          | 1.4               | 0.03            | 0.5              | 1.7               | 0.4             | 1.1              |
| LOCA              | 0.5               | 0.0             | 0.2              | 0.2               | 0.0             | 0.6              |
| MCOT Family       | 0.4               | 0.0             | 0.0              | 2.7               | 0.1             | 0.2              |
| <b>Overall</b>    | <b>1.5</b>        | <b>2.7</b>      | <b>0.5</b>       | <b>2.7</b>        | <b>1.6</b>      | <b>0.9</b>       |



### 3.5. Time slot of food advertisement

Free TV had the highest food advertisements, with almost 489 non-core food advertisements from 18.00 to 18.59, compared to Digital TV, which had 68 non-core food advertisements. Additionally, Digital TV had the highest food advertisements, with almost 95 non-core food advertisements from 7.00 to 7.59 (Table 12).

**Table 12:** Percentage of food advertisements on Free TV and Digital TV by time slot

| TV                | Total of food advertising | Percentage of food advertisements |             |                     |
|-------------------|---------------------------|-----------------------------------|-------------|---------------------|
|                   |                           | Non-core foods                    | Core foods  | Miscellaneous foods |
| <b>Free TV</b>    | <b>1,359</b>              | <b>73.4%</b>                      | <b>4.1%</b> | <b>22.5%</b>        |
| 6:00-6:59         | 141                       | 87.9%                             | 0.0%        | 12.0%               |
| 7:00-7:59         | 61                        | 87.1%                             | 3.2%        | 9.8%                |
| 8:00-8:59         | 252                       | 78.9%                             | 2.0%        | 19.2%               |
| 9:00-9:59         | 33                        | 57.7%                             | 6.0%        | 36.4%               |
| 15:00-15:59       | 117                       | 66.0%                             | 5.1%        | 29.1%               |
| 16:00-16:59       | 72                        | 76.5%                             | 7.0%        | 16.8%               |
| 17:00-17:59       | 194                       | 69.1%                             | 6.2%        | 24.6%               |
| 18:00-18:59       | 489                       | 68.8%                             | 4.9%        | 26.4%               |
| <b>Digital TV</b> | <b>693</b>                | <b>70.9%</b>                      | <b>3.6%</b> | <b>25.5%</b>        |
| 6:00-6:59         | 55                        | 59.9%                             | 14.5%       | 25.4%               |
| 7:00-7:59         | 95                        | 90.6%                             | 4.2%        | 5.3%                |
| 8:00-8:59         | 48                        | 68.9%                             | 8.4%        | 23.0%               |
| 9:00-9:59         | 86                        | 81.5%                             | 2.3%        | 16.3%               |
| 10:00-10:59       | 19                        | 52.7%                             | 0.0%        | 47.5%               |
| 11:00-11:59       | 42                        | 69.1%                             | 9.5%        | 21.4%               |
| 12:00-12:59       | 8                         | 75.0%                             | 0.0%        | 25.0%               |
| 13:00-13:59       | 13                        | 92.3%                             | 0.0%        | 7.7%                |
| 14:00-14:59       | 14                        | 42.9%                             | 0.0%        | 57.1%               |
| 15:00-15:59       | 26                        | 50.0%                             | 0.0%        | 50.0%               |
| 16:00-16:59       | 72                        | 70.8%                             | 1.4%        | 27.8%               |
| 17:00-17:59       | 29                        | 65.3%                             | 3.4%        | 31.0%               |
| 18:00-18:59       | 68                        | 85.2%                             | 0.0%        | 14.7%               |
| 19:00-19:59       | 43                        | 67.5%                             | 2.3%        | 30.3%               |
| 20:00-20:59       | 46                        | 43.3%                             | 0.0%        | 56.5%               |
| 21:00-21:59       | 22                        | 72.7%                             | 0.0%        | 27.2%               |
| 22:00-22:59       | 3                         | 0.0%                              | 0.0%        | 100.0%              |
| 23:00-24:00       | 3                         | 0.0%                              | 0.0%        | 100.0%              |
| 0.01-5.59         | 1                         | 0.0%                              | 0.0%        | 100.0%              |
| <b>Overall</b>    | <b>2,052</b>              | <b>72.5%</b>                      | <b>4.0%</b> | <b>23.5%</b>        |

### 3.6. Use of persuasive marketing techniques in food advertisements by channel

#### 3.6.1. Promotional characters

For all TV, 34% of food advertisements contained promotional characters. The overall rate of food advertisements containing promotional characters was 1.6 advertisements per hour, per channel (Table 13).

**Table 13:** Proportion and rate of food advertisements containing promotional characters

| TV                | Total promotional characters<br>n (% food ads) | Rate of promotional<br>characters<br>(Food ads/hr/channel) |
|-------------------|--|--|
| <b>Free TV</b>    | <b>468 (34.4%)</b>                             | <b>2.7</b>   |
| 3                 | 184 (38.1%)                                    | 4.2  |
| 5                 | 38(45.8%)                                      | 1.0  |
| 7                 | 196 (36.6%)                                    | 4.4  |
| MCOT              | 50(19.4%)                                      | 1.3  |
| <b>Digital TV</b> | <b>223 (33.1%)</b>                             | <b>0.4</b>   |
| 3 Family          | 144 (39.1%)                                    | 0.9  |
| LOCA              | 15 (12.8%)                                     | 0.1  |
| MCOT Family       | 64 (34.0%)                                     | 0.4  |
| <b>Overall</b>    | <b>691 (34.0%)</b>                             | <b>1.6</b>   |

Most advertisements containing promotional characters were for non-core foods and drinks. Across all TV, the rate of non-core food advertisements containing promotional characters was approximately 1.4, and higher than for core and miscellaneous foods (Table 14).

**Table 14:** Rate of food advertising containing promotional characters for major food groups

| TV                | Rate of advertisements with promotional characters<br>(Food ads/hr/channel) |             |                     |
|-------------------|---|-------------|---------------------|
|                   | Non-core foods  | Core foods  | Miscellaneous foods |
| <b>Free TV</b>    | <b>2.37</b>   | <b>0.05</b> | <b>0.32</b>         |
| 3                 | 3.39  | 0.15        | 0.68                |
| 5                 | 0.85  | 0.04        | 0.14                |
| 7                 | 3.97  | 0.00        | 0.44                |
| MCOT              | 1.25  | 0.03        | 0.03                |
| <b>Digital TV</b> | <b>0.39</b>   | <b>0.01</b> | <b>0.04</b>         |
| 3 Family          | 0.73  | 0.02        | 0.11                |
| LOCA              | 0.09  | 0.00        | 0.00                |
| MCOT Family       | 0.36  | 0.00        | 0.02                |
| <b>Overall</b>    | <b>1.38</b>   | <b>0.03</b> | <b>0.18</b>         |

### 3.6.2. Premium offers

Overall, 18.7% of food advertisements contained premium offers, with a range of 21.2% on Free TV to 13.6% on Digital TV. The overall rate of advertisements containing premium offers was almost one advertisement per hour, per channel (Table 15).

**Table 15:** Proportion and rate of food advertisements containing premium offers

| TV                | Total premium offers<br>n (% food ads) | Rate of premium offers<br>(Food ads/hr/channel) |
|-------------------|--|---|
| <b>Free TV</b>    | <b>288 (21.2%)</b>                     | <b>1.7</b>                                      |
| 3                 | 117 (40.6%)                            | 2.7   |
| 5                 | 23 (8.0%)                              | 0.6   |
| 7                 | 110 (38.2%)                            | 2.5   |
| MCOT              | 38 (13.2%)                             | 1.0   |
| <b>Digital TV</b> | <b>91 (13.6%)</b>                      | <b>0.18</b>                                     |
| 3 Family          | 42 (46.2%)                             | 0.25  |
| LOCA              | 1 (1.1%)                               | 0.01  |
| MCOT Family       | 48 (52.7%)                             | 0.29  |
| <b>Overall</b>    | <b>379 (18.7%)</b>                     | <b>0.94</b>                                     |

The rate of advertisements containing premium offers was highest for non-core foods and drinks. Across all TV, children were exposed to between 1.27 (Free TV) and 0.16 (Digital TV) non-core food advertisements containing premium offers each hour (Table 16).

**Table 16:** Rate of food advertising containing premium offers for major food groups

| TV                | Rate of advertisements with premiums<br>(Food ads/hr/channel) |              |                     |
|-------------------|---|--------------|---------------------|
|                   | Non-core foods  | Core foods   | Miscellaneous foods |
| <b>Free TV</b>    | <b>1.27</b>   | <b>0.01</b>  | <b>0.44</b>         |
| 3                 | 1.73  | 0.00         | 0.98                |
| 5                 | 0.44  | 0.03         | 0.17                |
| 7                 | 2.04  | 0.02         | 0.45                |
| MCOT              | 0.87  | 0.00         | 0.14                |
| <b>Digital TV</b> | <b>0.16</b>   | <b>0.00</b>  | <b>0.02</b>         |
| 3 Family          | 0.21  | 0.00         | 0.04                |
| LOCA              | 0.01  | 0.00         | 0.00                |
| MCOT Family       | 0.28  | 0.00         | 0.01                |
| <b>Overall</b>    | <b>0.72</b>   | <b>0.005</b> | <b>0.23</b>         |

## **4. Conclusion**

### **4.1 Free TV**

On Free TV, 3,240 advertisements were identified, of which 41.9% were for food and drinks, and 58.1% were for non-food and non-drink products. The rate of food advertising on Free TV was 4.8 food advertisements per hour, per channel. Free TV had the highest rate of non-core advertisements, with almost 24.3 non-core food advertisements per hour. The most frequently advertised food product types on Free TV were sugar-sweetened drinks. The program categories that contained the highest proportion of food advertisements on Free TV overall were children's programs. The rate of food advertising was highest on weekends.

### **4.2 Digital TV**

On Digital TV, 7,838 advertisements were identified, of which 8.9% were for food and drink, and 91.1% were for non-food and non-drink products. The rate of food advertising on Digital TV was 1.4 food advertisements per hour, per channel. Digital TV had the highest rate of non-core advertisements, with almost 2.9 non-core food advertisements per hour. The most frequently advertised food product type on Digital TV was baby formula. The program categories that contained the highest proportion of food advertisements on Digital TV overall were children's programs. The rate of food advertising was highest on weekends.

### **4.3 Overall**

Results from this study indicate that unhealthy food and drink dominate television advertising. While the rates of non-core food advertising were higher than core and miscellaneous food advertising, unhealthy food advertising during children's programs was clear and evident.

## **5. Strengths and Limitations**

### **5.1 Strengths**

All channels of Free TV were included in the data collection; therefore, channels were not chosen on the basis of representative data. So, channels selected are national level. For period or length, Free TV was recorded 2 weeks (ten weekdays and four weekend days). Hence, length of time for television monitor was to capture exposure to advertisements across all programs. For time, Digital TV was recorded a week of television broadcasting from 0:01-24:00 daily or 24 hours per day. Therefore, this study has been used to identify every program [not focused on prime-time] and covered all of advertisement.

### **5.2 Limitations**

One limitation inherent in the design of this study is that channels of Free TV and Digital TV were not chosen to maximize the percentage coverage of peak viewing times since this information is not easily available, nor affordable. In addition, the budget of this study was limited. However, this study was conducted based on Thailand's regulations [The Notification of the Office of the National Broadcasting and telecommunications Commission; NBTC] on

programs and advertising to children.

## **6. Recommendations**

Free TV and Digital TV had non-core food [unhealthy food] advertisements, which were higher than for core and miscellaneous foods. Thailand possesses laws related to marketing and advertising, which can be deployed to control the marketing and advertising of foods and non-alcoholic beverages that are high in saturated fats, transfatty acids, sugars, or salt to children. However, Thailand has no specific regulations to control food and non-alcoholic beverage marketing and advertising to children on television. Therefore, it is recommended that the government and related agencies develop policies to address this issue, as well as strengthen enforcement of the existing laws; additionally, current regulations or guidelines should be updated according to new evidence to control unhealthy food advertising and marketing so as to protect the health of Thai children.

## **7. Acknowledgements**

This study was funded by a grant from the Food and Nutrition Policy for Health Promotion, Thailand. The researchers would like to thank Media Monitor, Thailand and Mr.Putthipanya Rueangsom for facilitating the data collection process. Most importantly, we would like to commend all respondents who believed in our promise of their information benefitting our society by substantiating the development of health interventions and policies aimed at reducing unhealthy food advertising, and subsequent unhealthy food consumption, amongst Thai children.

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## Appendix 1: Channels and dates of television recording [2014]

| Free TV                     |                             |                             |                             |                             |                             |                             |                             |                             |                             |                             |                             |                             |                             |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 24/03<br>(Mon)              | 25/03<br>(Tues)             | 26/03<br>(Wed)              | 27/03<br>(Thurs)            | 28/03<br>(Fri)              | 29/03<br>(Sat)              | 30/03<br>(Sun)              | 31/03<br>(Mon)              | 01/04<br>(Tues)             | 02/04<br>(Wed)              | 03/04<br>(Thurs)            | 04/04<br>(Fri)              | 05/04<br>(Sat)              | 06/04<br>(Sun)              |
| TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3, 5,<br>7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3, 5,<br>7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch | TV3,<br>5, 7,<br>MCOT<br>Ch |

| Digital TV                                  |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 07/10<br>(Tues)                             | 08/10<br>(Wed)                                  | 09/10<br>(Thurs)                                | 10/10<br>(Fri)                                  | 11/10<br>(Sat)                                  | 12/10<br>(Sun)                                  | 13/10<br>(Mon)                                  |
| TV3<br>family,<br>MCOT<br>family,<br>LOCACh | TV3<br>family,<br>MCOT<br>family,<br>LOCA<br>Ch | TV3<br>family,<br>MCOT<br>family,<br>LOCA<br>Ch | TV3<br>family,<br>MCOT<br>family,<br>LOCA<br>Ch | TV3<br>family,<br>MCOT<br>family,<br>LOCA<br>Ch | TV3<br>family,<br>MCOT<br>family,<br>LOCA<br>Ch | TV3<br>family,<br>MCOT<br>family,<br>LOCA<br>Ch |