

ANNUAL SURVEY ON INFOCOMM USAGE IN HOUSEHOLDS AND BY INDIVIDUALS FOR 2007

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INTRODUCTION

The 2007 Annual Survey is the twelfth in the series conducted since 1990 with the objective of surveying Singapore households and the resident population to:

- a. gauge their ownership of infocomm appliances and subscriptions to infocomm services;
- b. assess the level of sophistication and extent of their infocomm usage; and
- c. identify the barriers to, and motivations for, their infocomm adoption and usage.

Survey Methodology

The sample was selected from the Household Sampling Frame maintained by the Department of Statistics (DOS), using a two-stage stratified design to maintain a random and representative sample.

The Survey fieldwork was conducted from 4 October 07 to 29 February 08 with 4,400 households and 6,000 individuals successfully interviewed.

Report Structure

This report is organised in the following parts:

- Part A: Chapter A sets out the key findings.
Part B: Chapters B1 to B2 present the findings of household infocomm usage.
Part C: Chapters C1 to C5 present the findings of infocomm usage by individuals

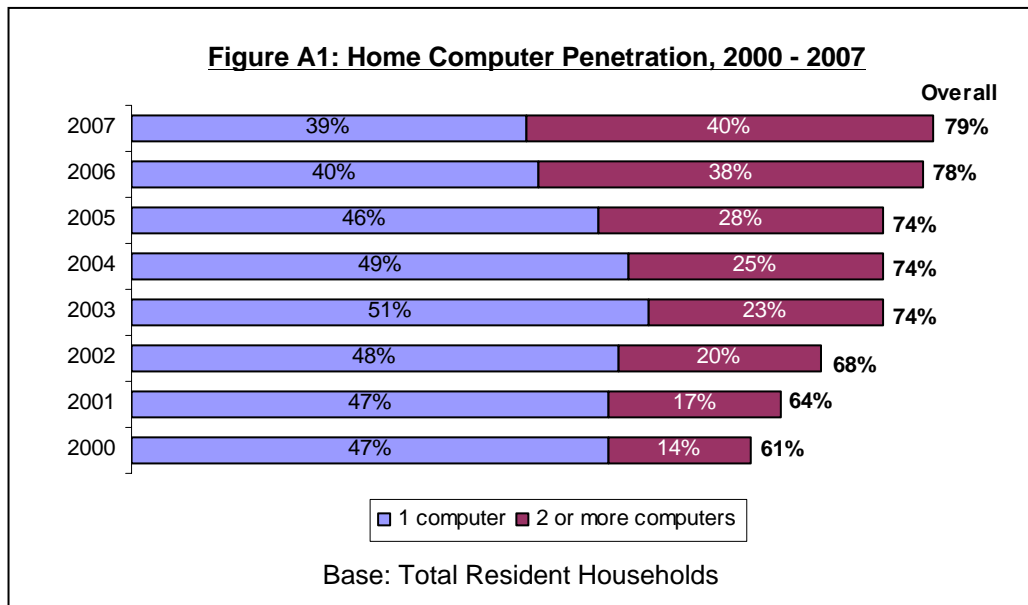
A glossary of terms used in this report can be found in Annex A.

PART A: KEY FINDINGS

Key Findings

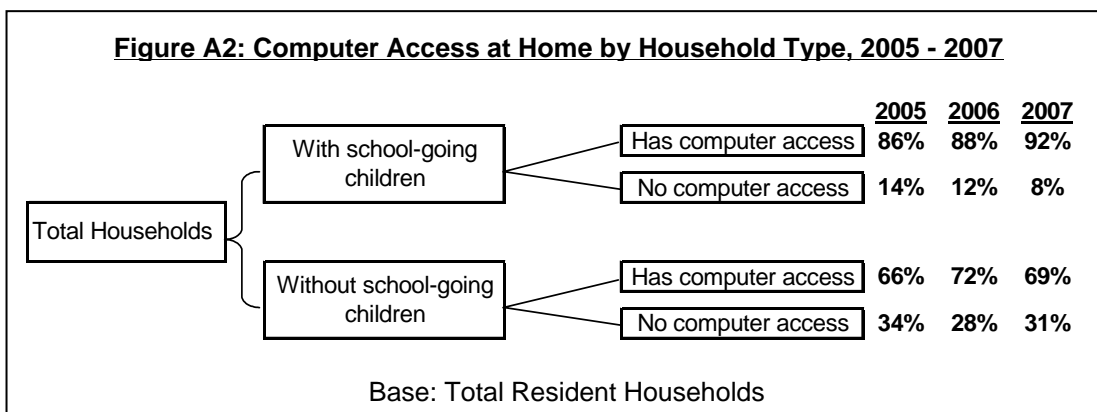
Home Computer Penetration

79% of households in Singapore had access to at least one computer at home in 2007. For the first time since 2000, there were more households with 2 or more computers than households who had only 1 (Figure A1).



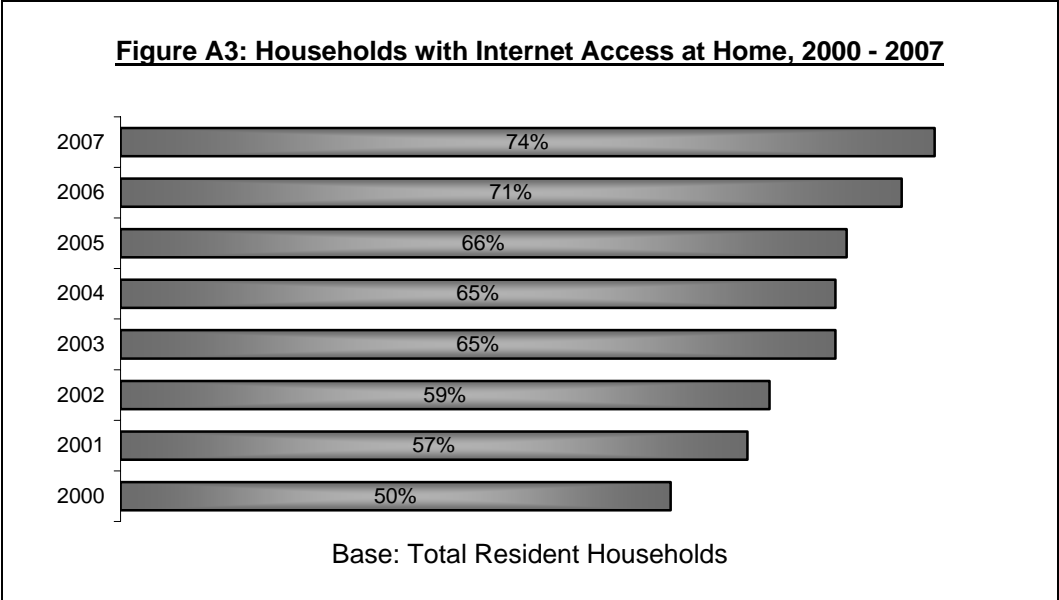
Computer Access in Households with School-going Children

Computer access in households with school-going children increased to 92% in 2007 (Figure A2).



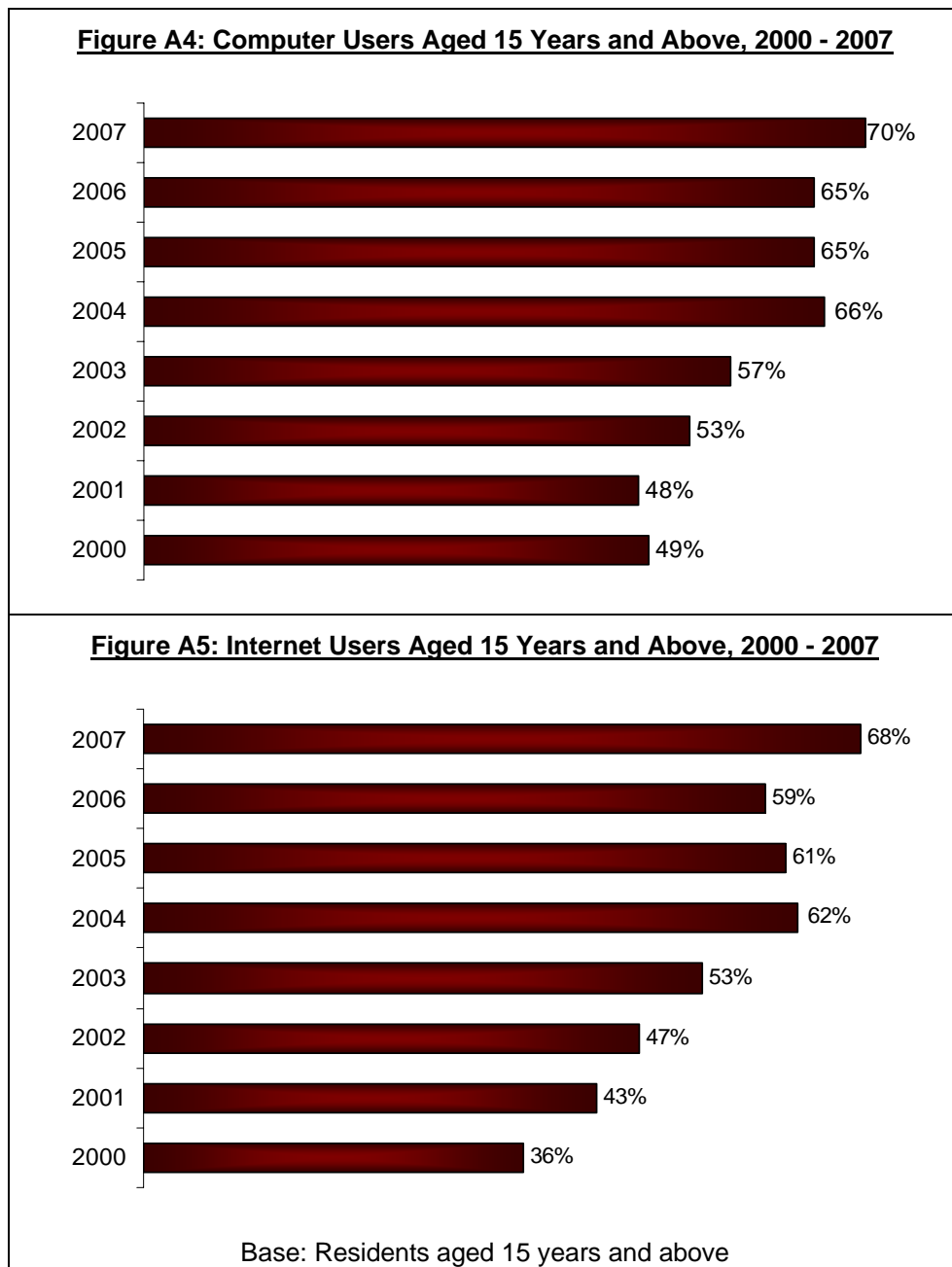
Home Internet Access

The proportion of households with Internet access at home increased from 71% in 2006 to 74% in 2007 (Figure A3).



Computer and Internet Users

The proportion of computer users aged 15 years and above in 2007 increased to 70% in 2007 (Figure A4). Similarly, the proportion of Internet users aged 15 years and above increased to 68% in 2007 (Figure A5).



Internet Activities Engaged in by Users

Table A1 shows the ten most common primary Internet activities engaged in by users.

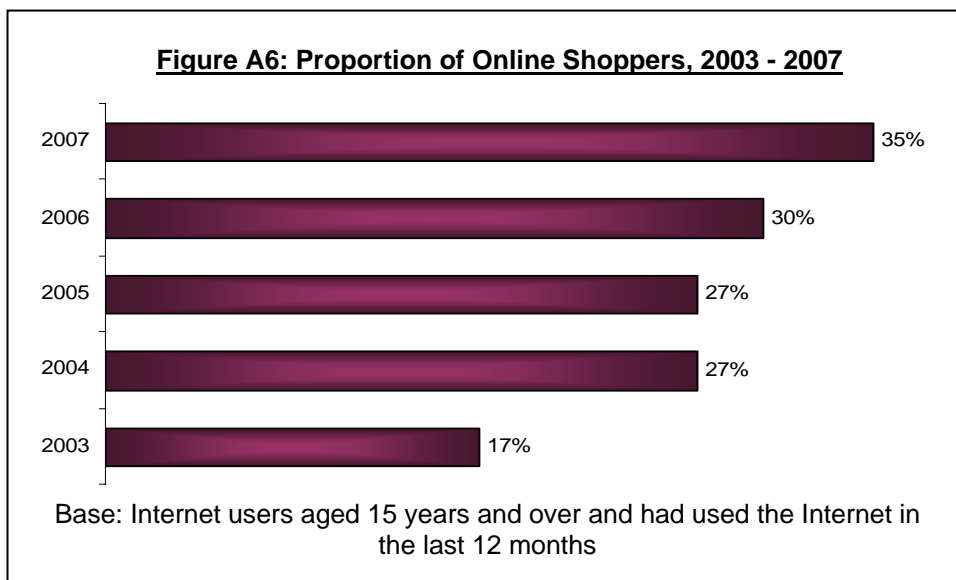
Table A1: Top 10 Primary Internet Activities Engaged in by Users, 2007

No.	Internet Activity	2007
1.	Sending or receiving emails	69%
2.	General web browsing	35%
3.	Instant messaging	22%
4.	Getting information about goods and services	21%
5.	Checking account information	20%
6.	Payment of bills	15%
7.	Education or training activities (e.g. e-learning)	15%
8.	Downloading or listening to online music	15%
9.	Transferring of funds to other bank accounts	13%
10.	Getting information from government organisations / public authorities (from websites or via email)	12%

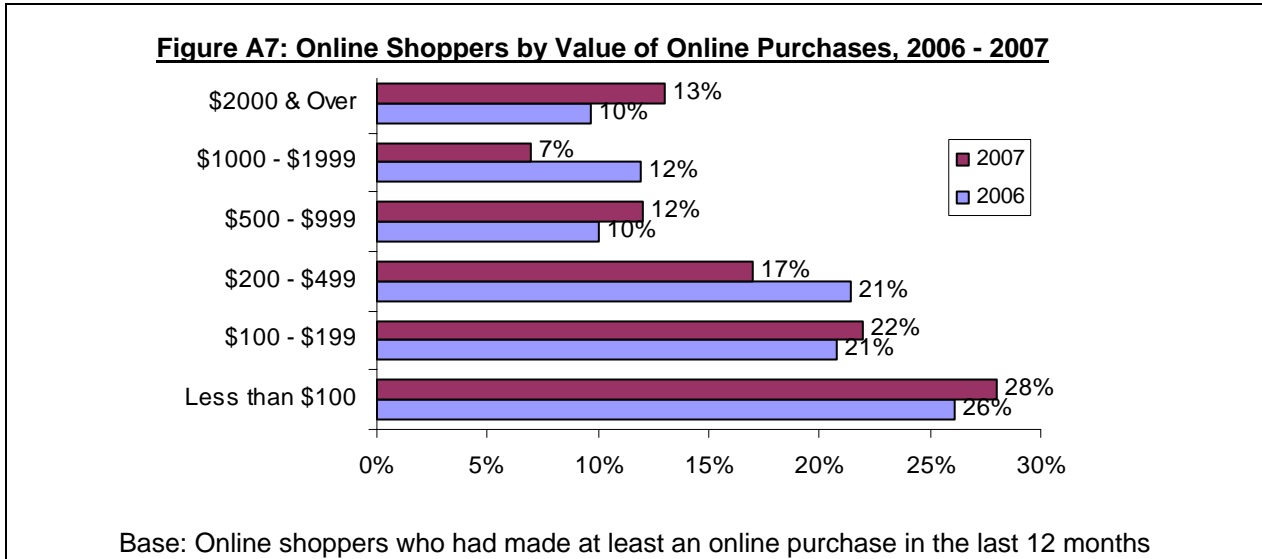
Base: Internet users aged 15 years and over who had used the Internet in the last 12 months

Online Shoppers

Online shopping is gaining in popularity; the proportion of Internet users who had shopped online increased to 35% in 2007 (Figure A6).



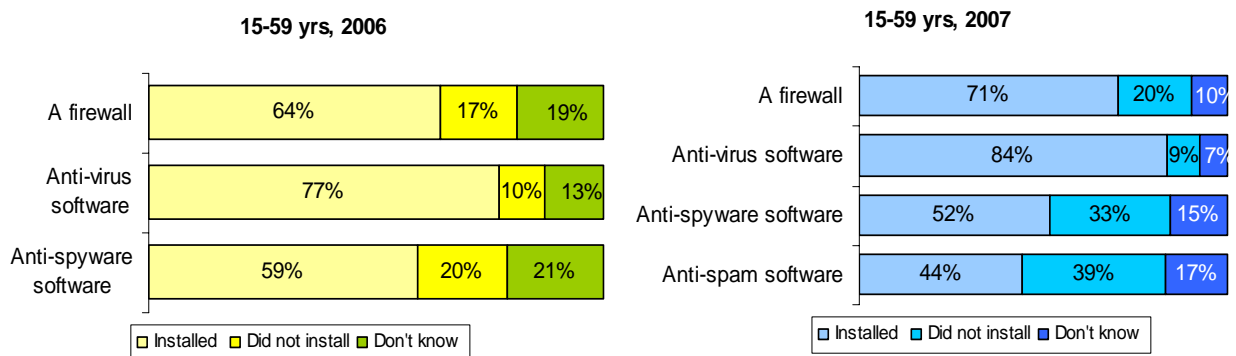
A higher proportion (13%) of online shoppers spent \$2,000 and over on online purchases in 2007 (Figure A7).¹



Home Internet Security

A higher proportion of home Internet users aged 15-59 years installed anti-virus software (84%) and firewall (71%) in their computers in 2007 (Figure A8).

Figure A8: Usage of Internet Security Software, 2006-2007²



Base: Home Internet users aged 15 to 59 years who had used the Internet via a home computer in the last 12 months

¹ Percentages may not add up to 100% due to rounding.

² Percentages may not add up to 100% due to rounding.

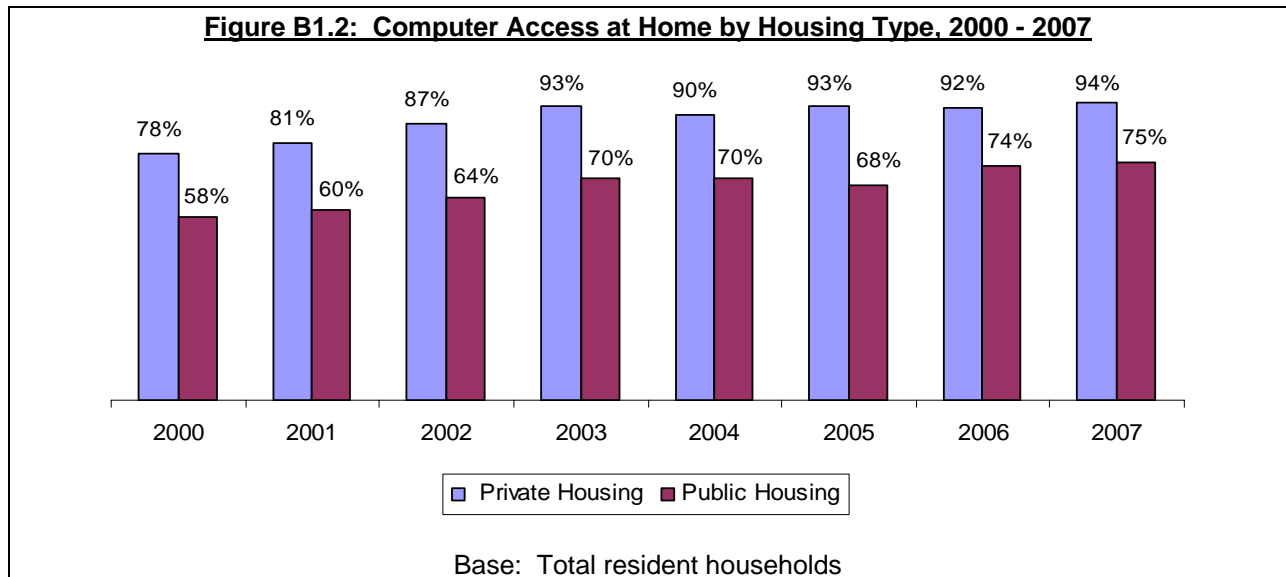
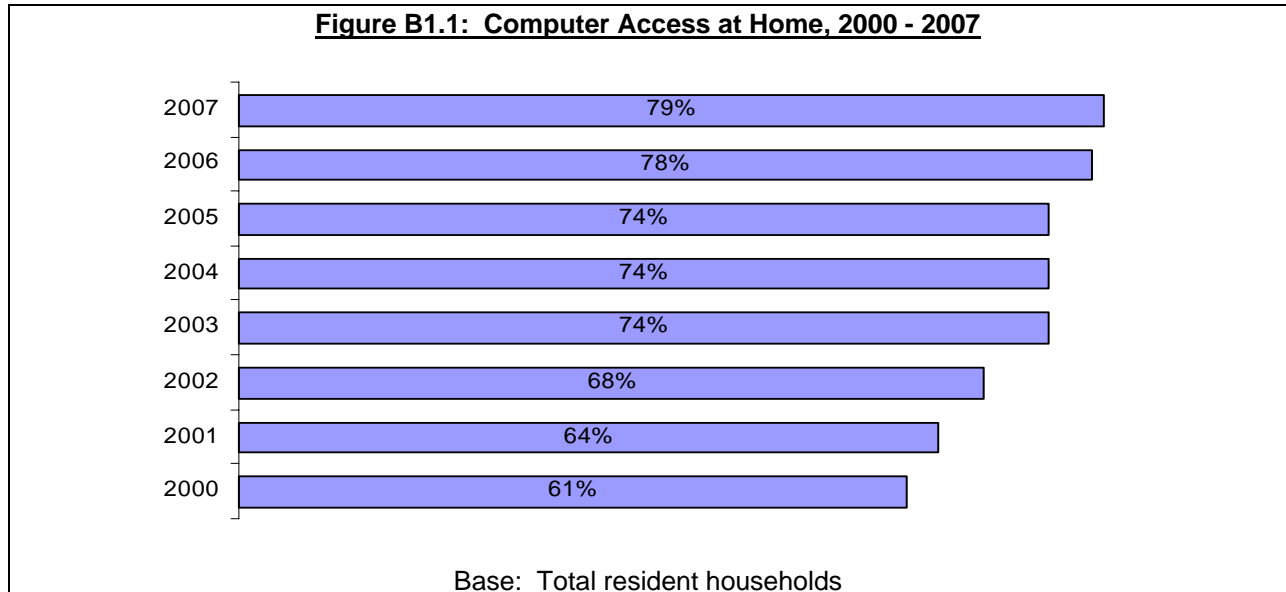
PART B: HOUSEHOLD INFOCOMM USAGE

B1. COMPUTER ACCESS WITHIN HOUSEHOLDS

B1.1 Home Computer Access

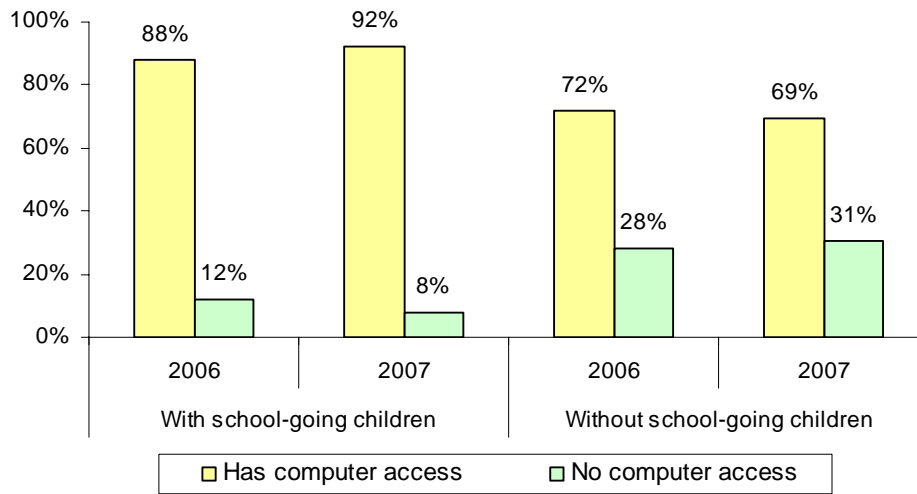
By housing type and in households with school-going children

In 2007, 79% of resident households had access to a computer at home (Figure B1.1). 94% and 75% of households in private and public housing had access to a computer at home (Figure B1.2).



Amongst households with school-going children, 92% of them had access to a computer at home (Figure B1.3).

Figure B1.3: Computer Access at Home by Households with School-going Children, 2006 - 2007



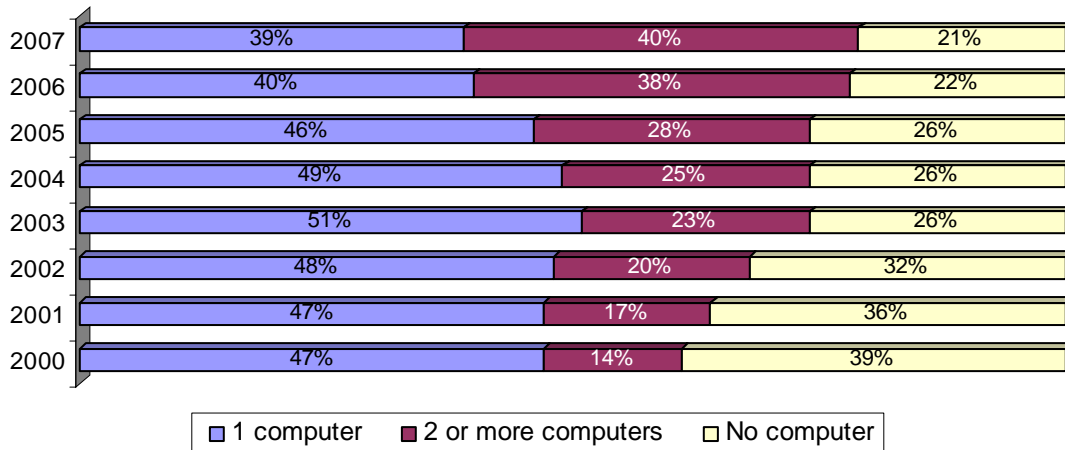
Base: Total resident households

B1.2 Households with Access to Two or More Computers at Home

a. Household access to two or more computers at home

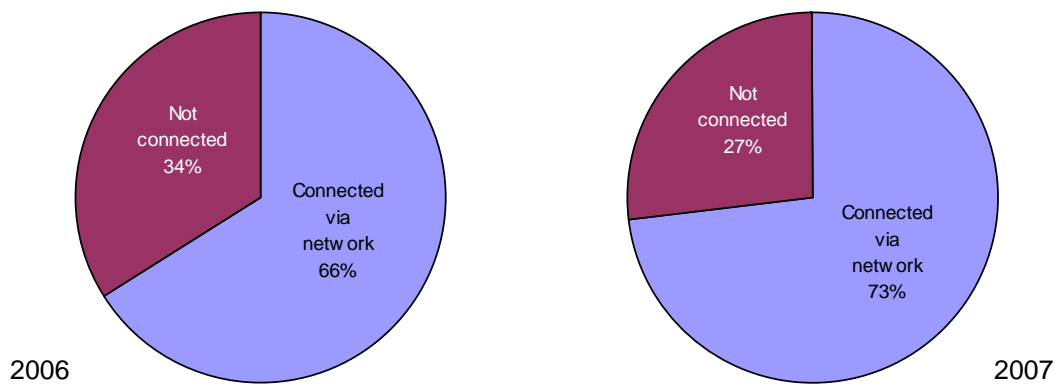
In 2007, 40% of households had access to two or more computers (Figure B1.4); amongst such households, 73% of them connected their computers via a network (Figure B1.5).

Figure B1.4: Number of Computers in the Households, 2000 - 2007



Base: Total resident households

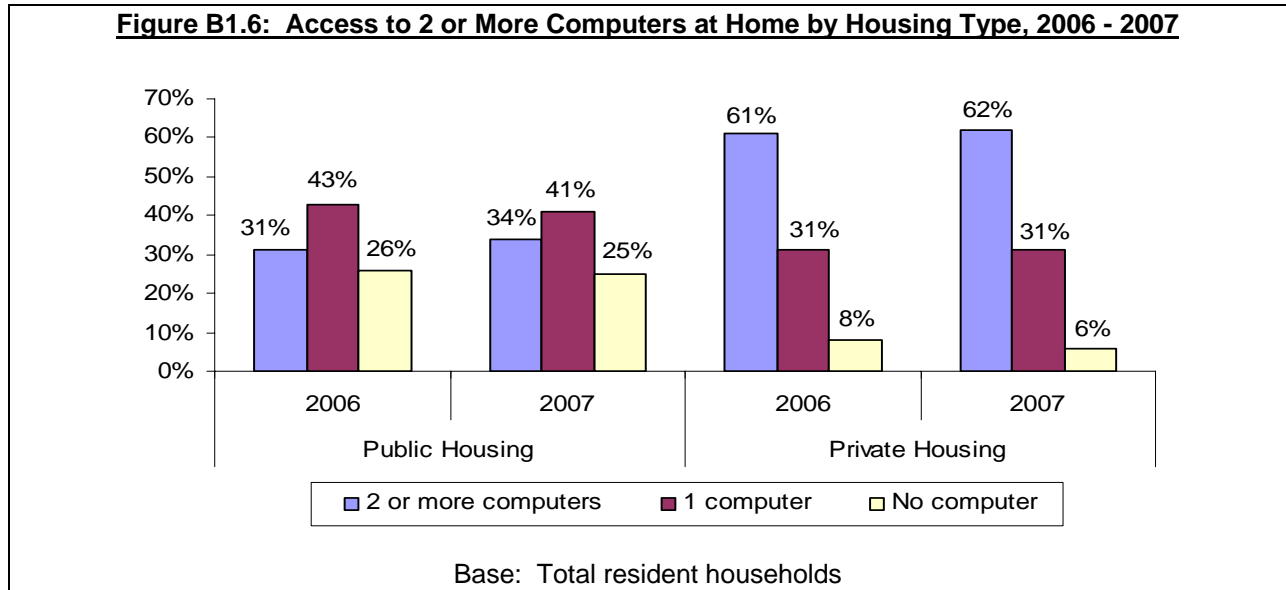
Figure B1.5: Networked Computers or Wireless LAN at Home, 2006 - 2007



Base: Households with access to 2 or more computers

b. Access to 2 or more computers at home by housing type

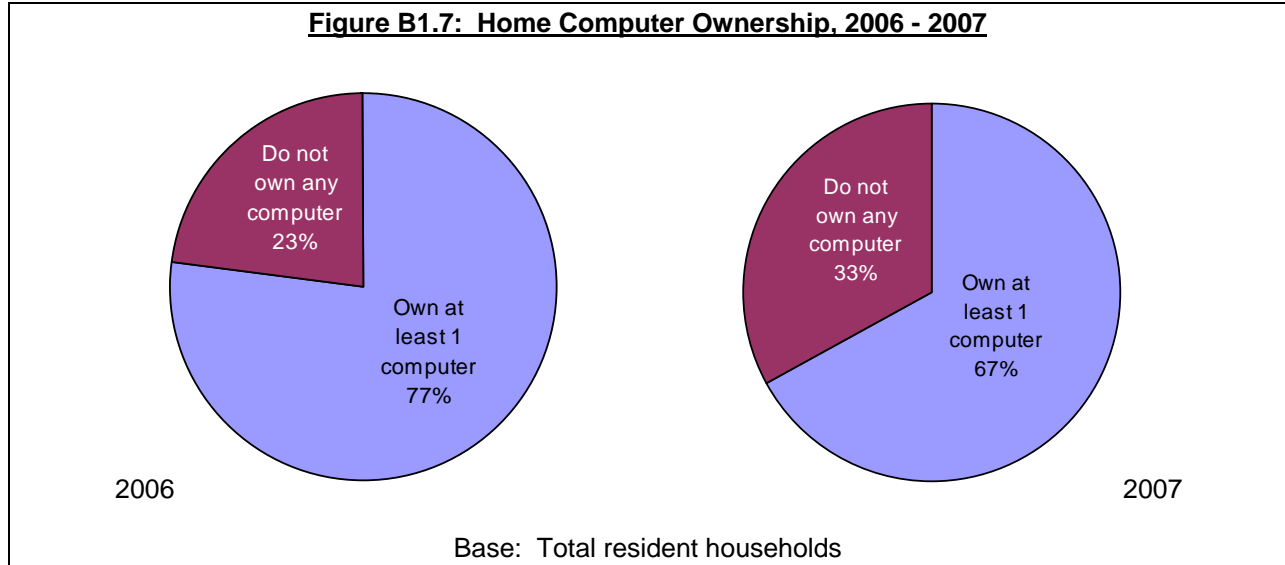
A higher proportion of households in private housing continued to have access to 2 or more computers at home compared to the households in public housing in 2007 ([Figure B1.6](#)).



B1.3 Home Computer Ownership

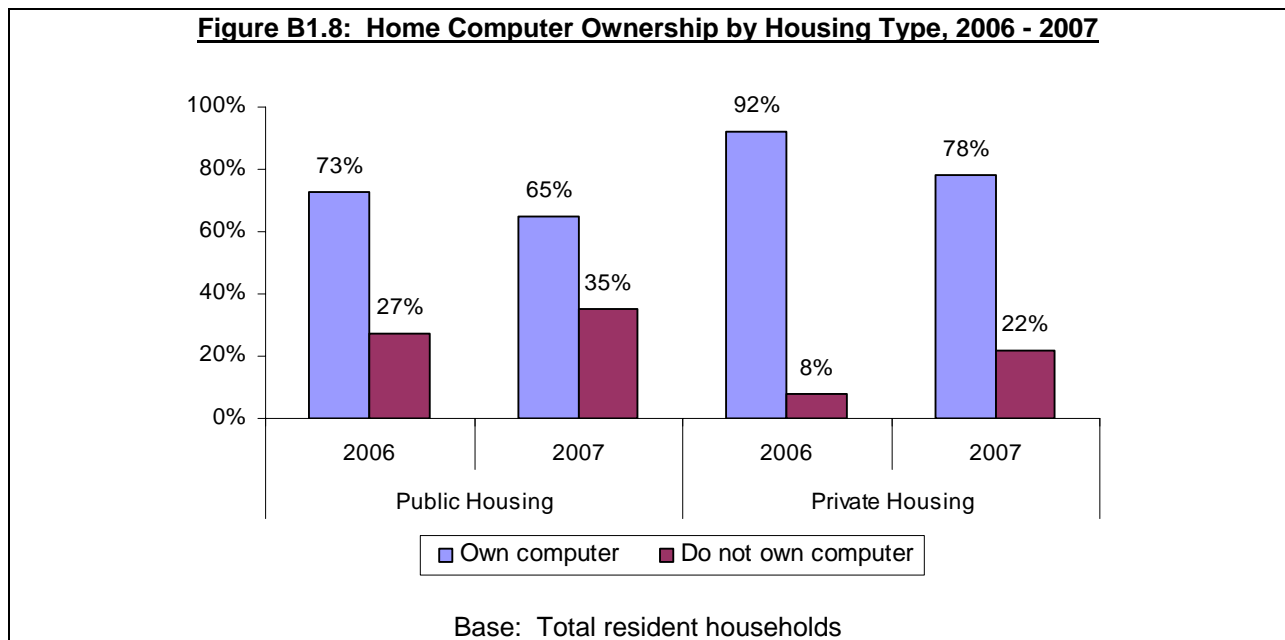
a. Home computer ownership

67% of households owned at least one home computer in 2007 ([Figure B1.7](#)).



b. Home computer ownership by housing types

In 2007, 78% of the households in private housing and 65% of the households in public housing owned at least one computer at home ([Figure B1.8](#)).



B1.4 Main Reason for Not Having Access to a Home Computer

In 2007, the lack of necessity to have a computer (46%), lack of skills to use a computer (29%) and the cost of buying a computer (11%) remained the top three reasons for not having access to a computer at home ([Table B1.1](#)).

Table B1.1: Main Reason for Not Having Access to a Computer at Home, 2006 - 2007

Main reason	2006	2007
No necessary to use	43%	46%
Lack of skills	20%	29%
Too costly to purchase a computer	17%	11%
Others	8%	6%
Old age is a barrier to learn computer skills	8%	7%
Children are too young	4%	2%
Total:	100%	100%

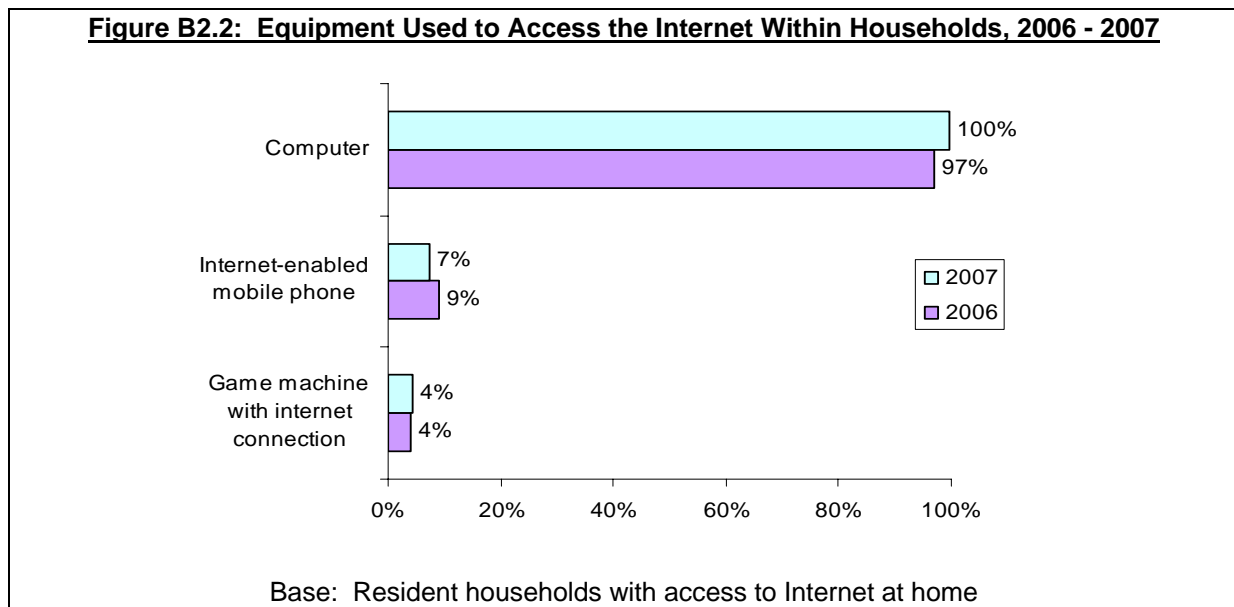
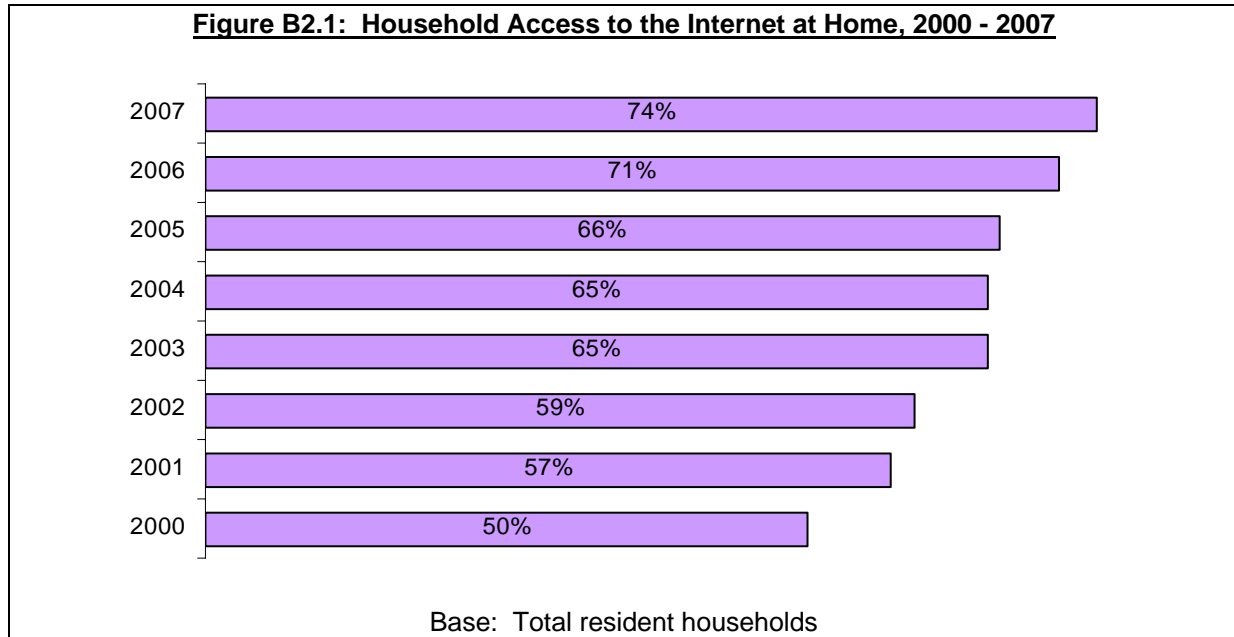
Base: Resident households who did not have access to a computer at home

B2. INTERNET ACCESS WITHIN HOUSEHOLDS

B2.1 Internet Access at Home

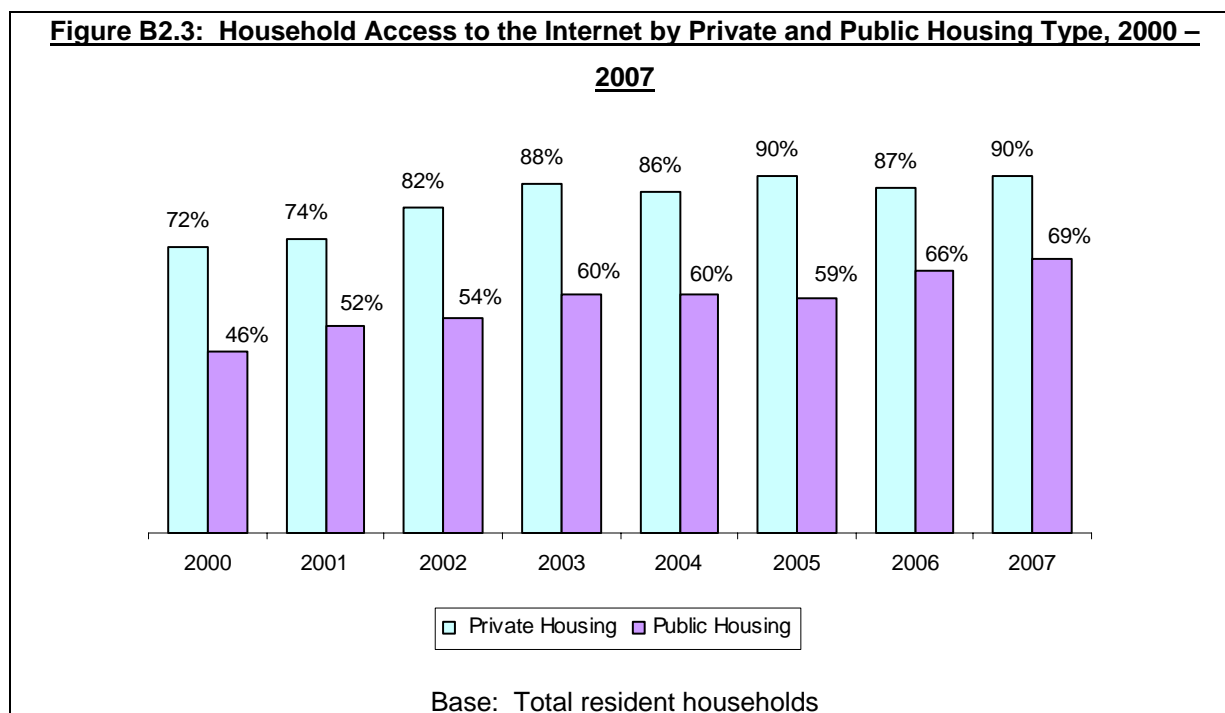
a. Access to the Internet at home

In 2007, 74% of households had access to the Internet at home (Figure B2.1) and all did so using computers (Figure B2.2).



b. Internet access at home by housing types

In 2007, 90% of the households in private housing had access to the Internet compared to 69% of households in public housing (Figure B2.3).



B2.2 Main Reason for Not Having Internet Access at Home

Although lack of interest remained the top main reason cited, there was a decline in the number who cited lack of knowledge or skills to use the Internet as well as those that cited concerns about cost of equipment (Table B2.1).

Table B2.1: Main Reason for Not Having Internet Access at Home, 2006 - 2007

Main reason	2006	2007
Lack of interest/No need to use	43%	55%
Lack of knowledge/skills/confidence	18%	11%
Have access to Internet elsewhere	7%	9%
Others:	13%	14%
- Lack of equipment	-	7%
Costly equipment costs	14%	8%
Subscription to the Internet is too costly	4%	3%
Concern about exposure to inappropriate or harmful content	1%	1%
Total:	100%	100%

Base: Resident households with no access to the Internet at home

B2.3 Internet Connection within Households

Type of Internet connection within households

In 2007, 95% of the households with access to the Internet at home connected to the Internet via broadband (Figure B2.4). Among households with narrowband access to the Internet, the main reason cited for not using broadband access was the household's low usage of the Internet at home (Table B2.2).

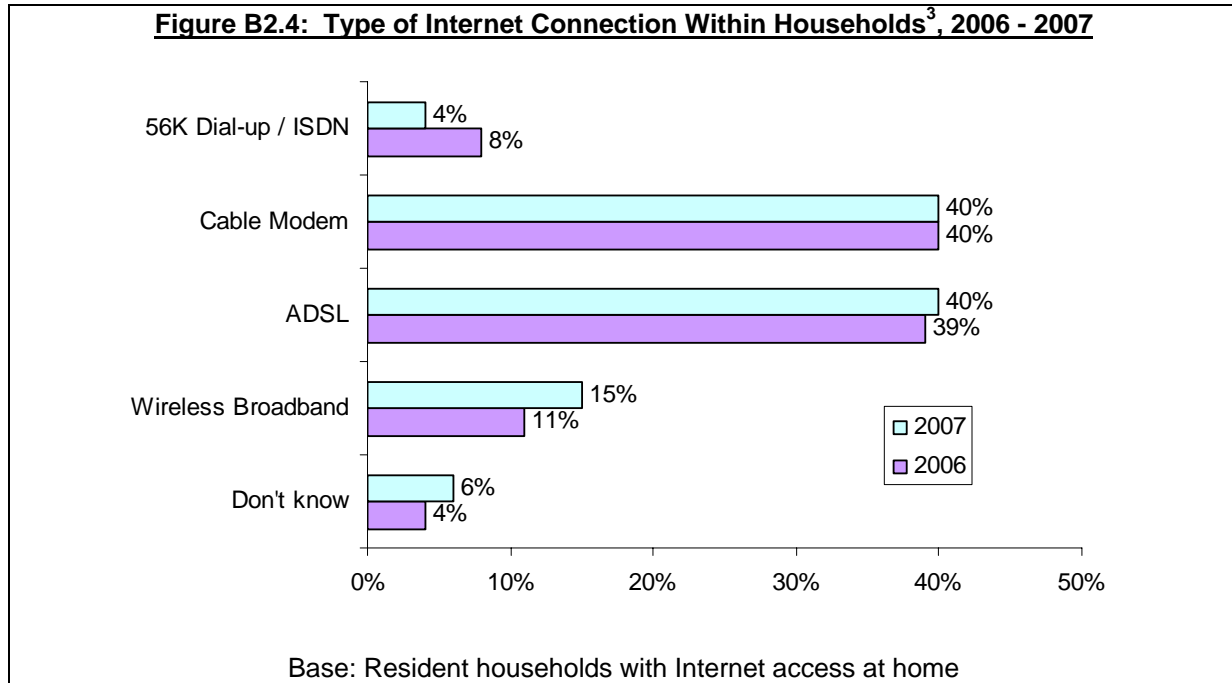


Table B2.2: Main Reason for Not Subscribing to Broadband Access Service, 2006 - 2007

Main reason for not subscribing to broadband	2006	2007
Low usage of the Internet at home	39%	44%
Have access to broadband access service elsewhere	12%	15%
Subscription to broadband access service is too costly	15%	14%
Dial-up is fast enough / No need to use broadband	17%	11%
Others	14%	9%
Cost of upgrading equipment	4%	7%
Total:	100%	100%

Base: Resident households with narrowband access at home only

³ There are households with access to the Internet via both broadband and narrowband. These households had been categorised as households with broadband Internet access.

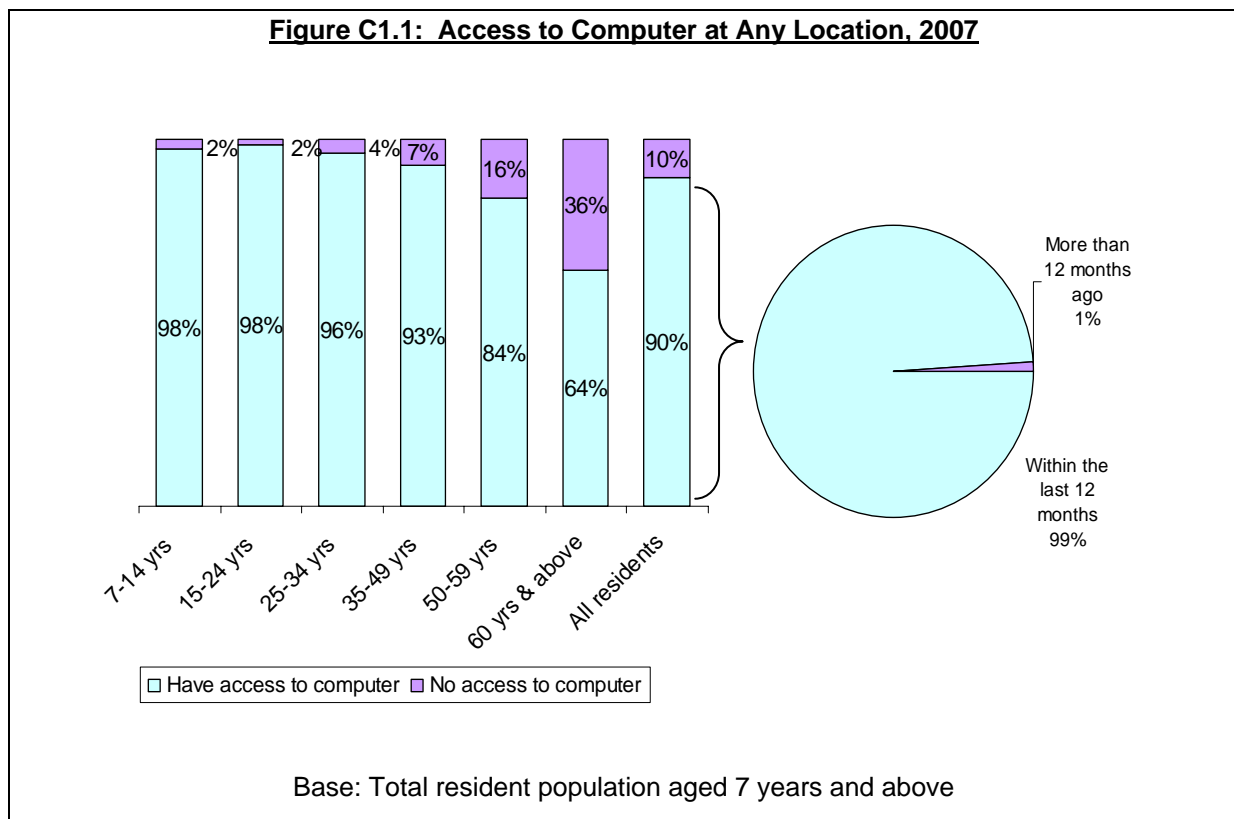
PART C: INFOCOMM USAGE BY INDIVIDUALS

C1. COMPUTER ACCESS AND USAGE BY INDIVIDUALS

C1.1 Computer Access and Usage

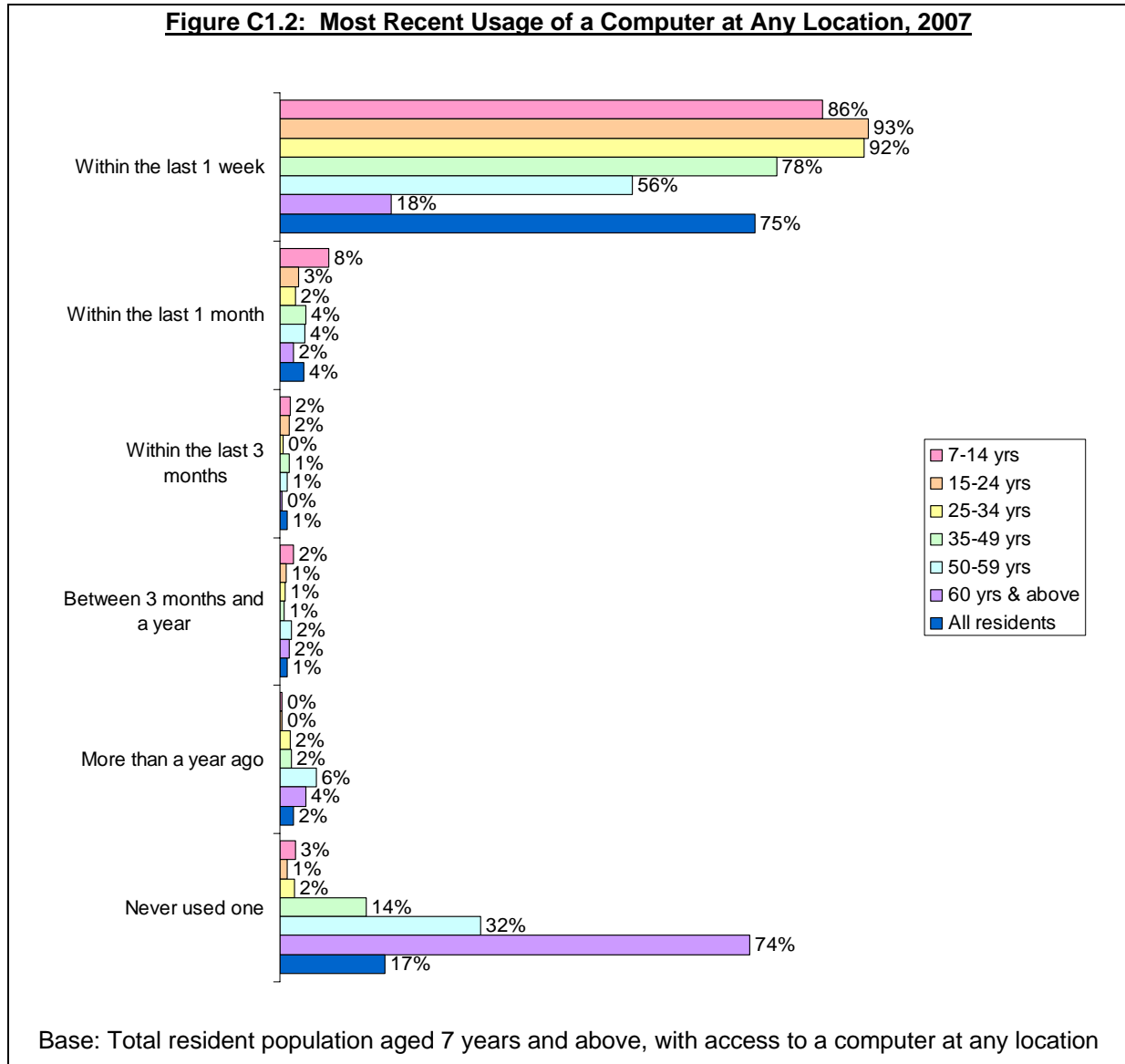
a. Access to a computer

In 2007, 90% of the resident population had access to the computer at any location (Figure C1.1), among which 99% of them had access within the last 12 months. Residents in the age groups 7-14 years and 15-24 years had the highest percentage of computer access (98%) at any location.



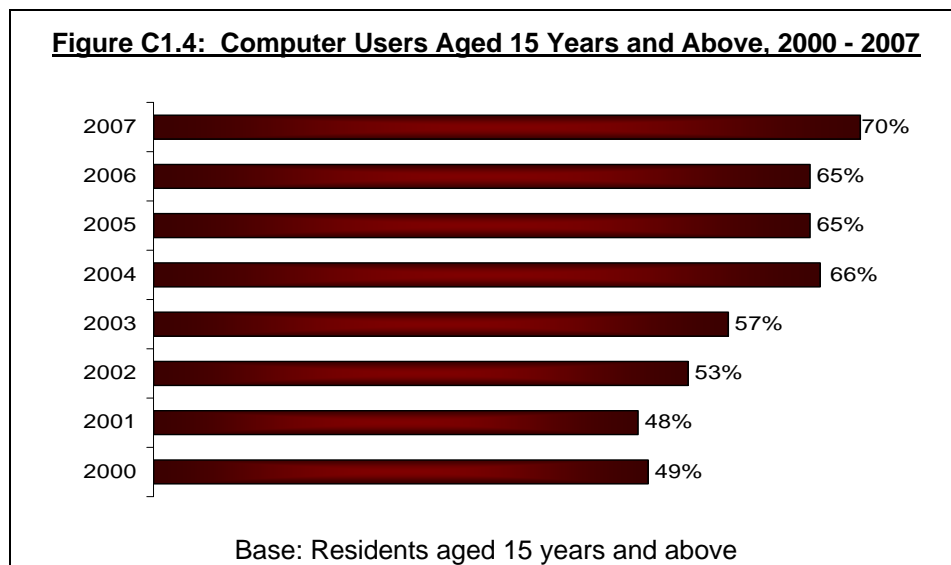
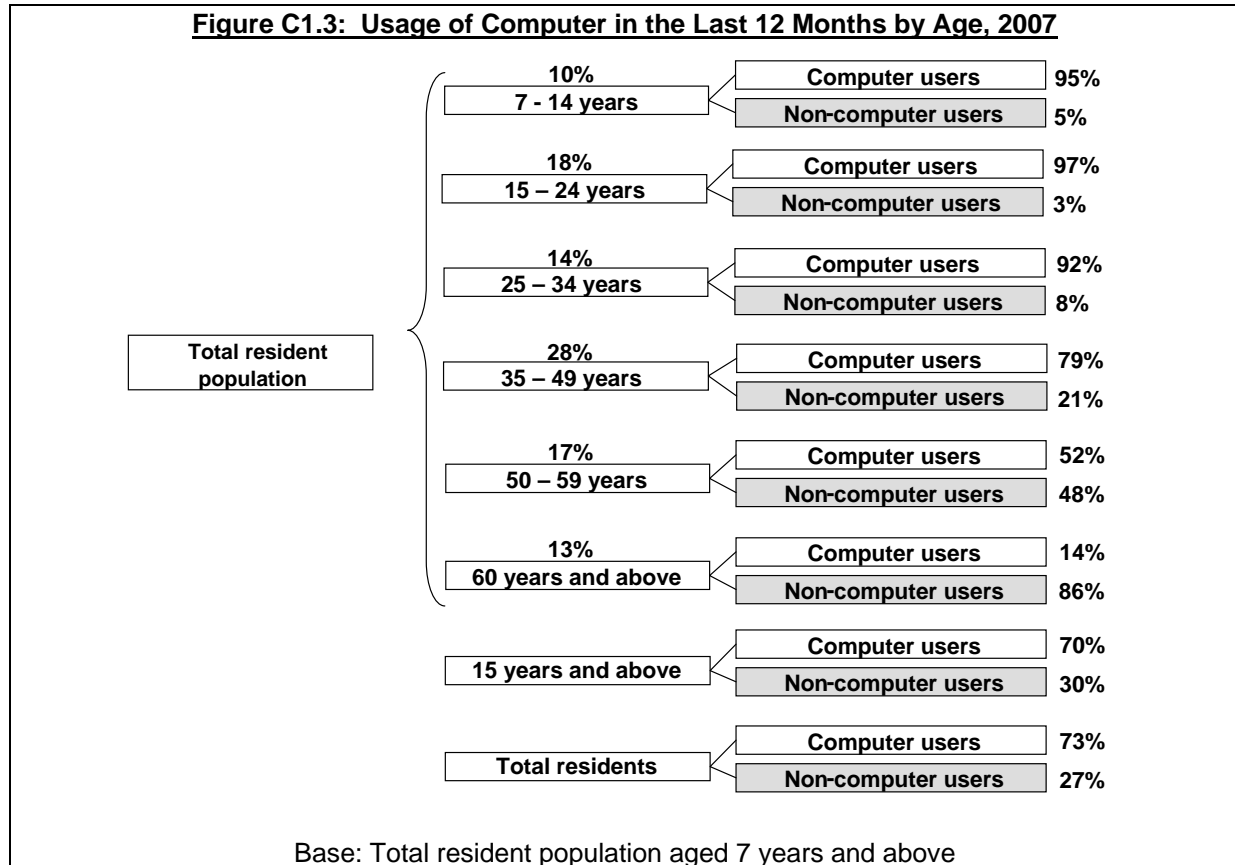
b. Most recent usage of a computer at any location

In 2007, among residents with access to a computer at any location, 75% had used a computer within the last one week. The highest proportion of residents who had used a computer within the last one week were those in the age group 15-24 years (93%) (Figure C1.2).



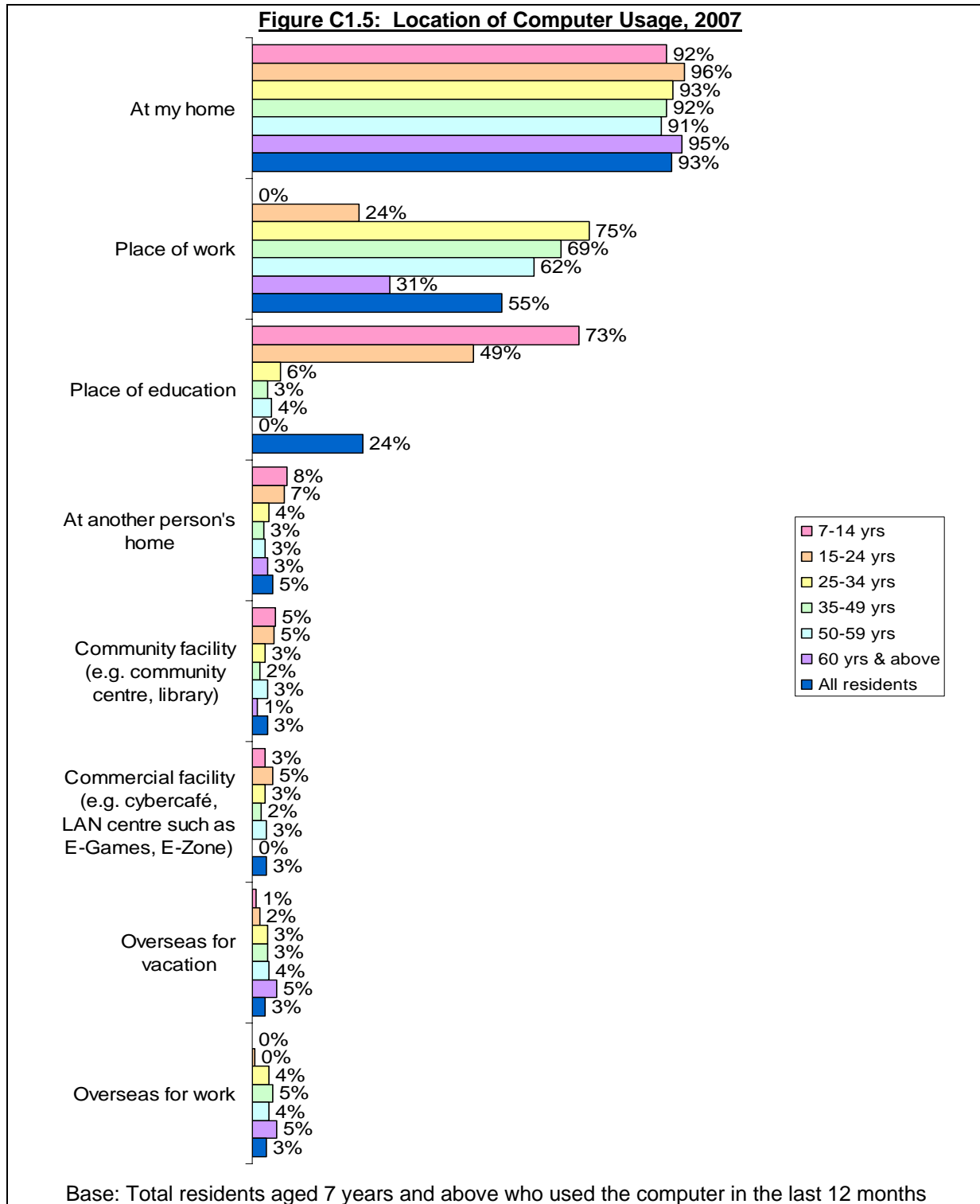
c. Usage of computer by age

The higher proportions of computer users were from the relatively younger age groups (Figure C1.3). The proportion of computer users aged 15 years and above in 2007 increased to 70% in 2007 (Figure C1.4).



C1.2 Location of Computer Usage

In 2007, home and the place of work were the two most popular places to use the computer (Figure C1.5).

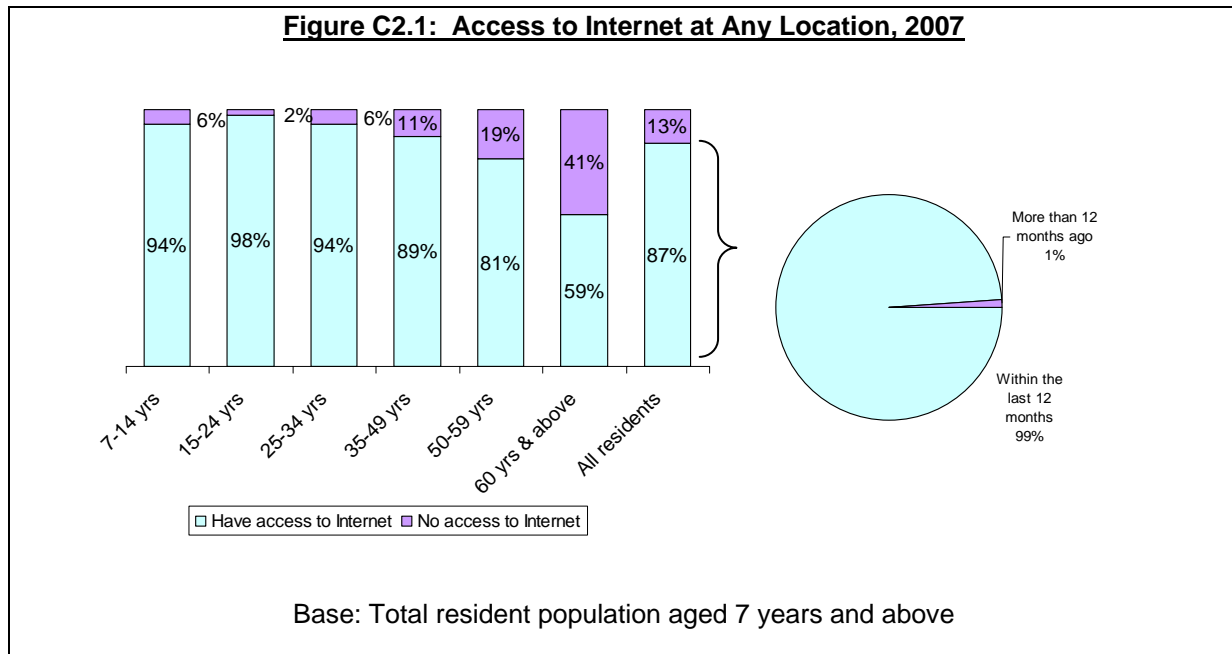


C2. INTERNET ACCESS AND USAGE BY INDIVIDUALS

C2.1 Internet Access and Usage

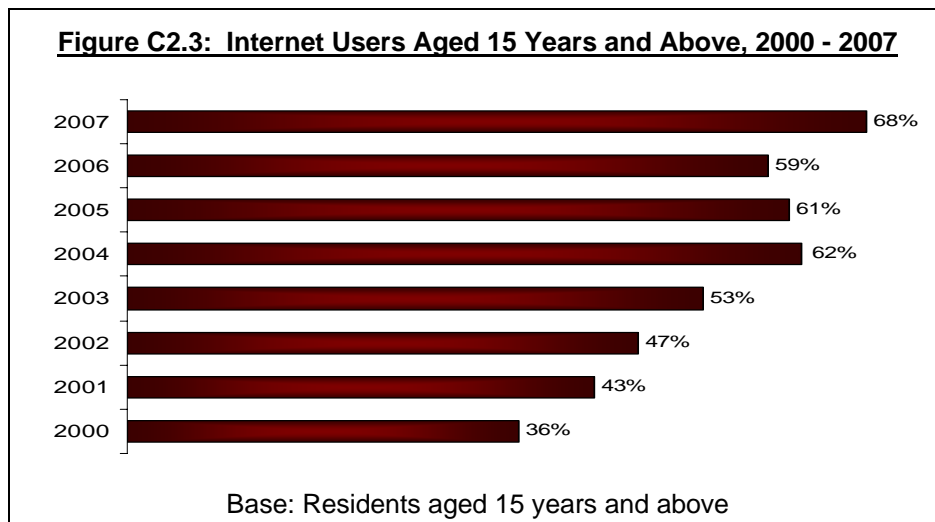
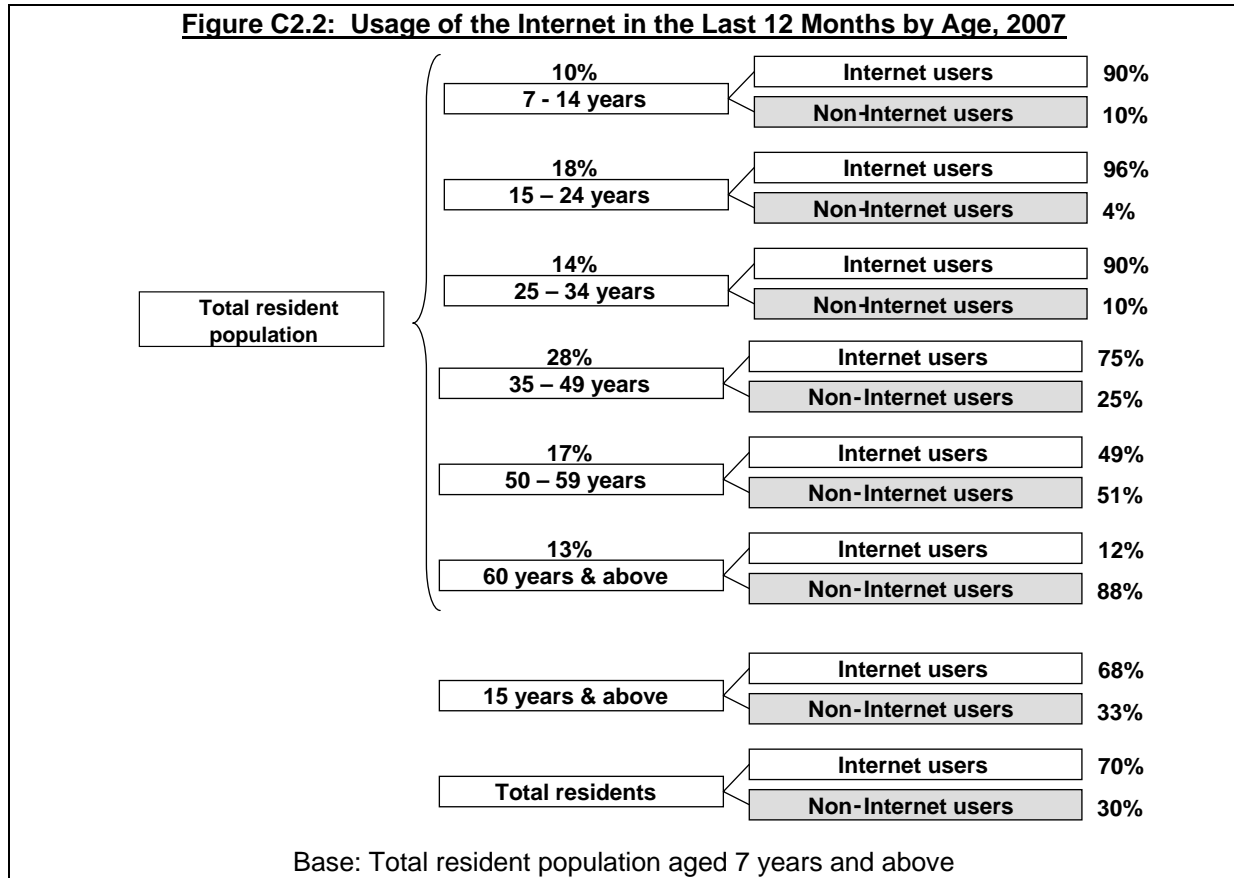
a. Access to the Internet

In 2007, 87% of the resident population aged seven years and above had access to the Internet at any location via any type of access equipment. Almost all with access to the Internet (99%) had access to it in the last 12 months (Figure C2.1).



b. Internet Users by Age

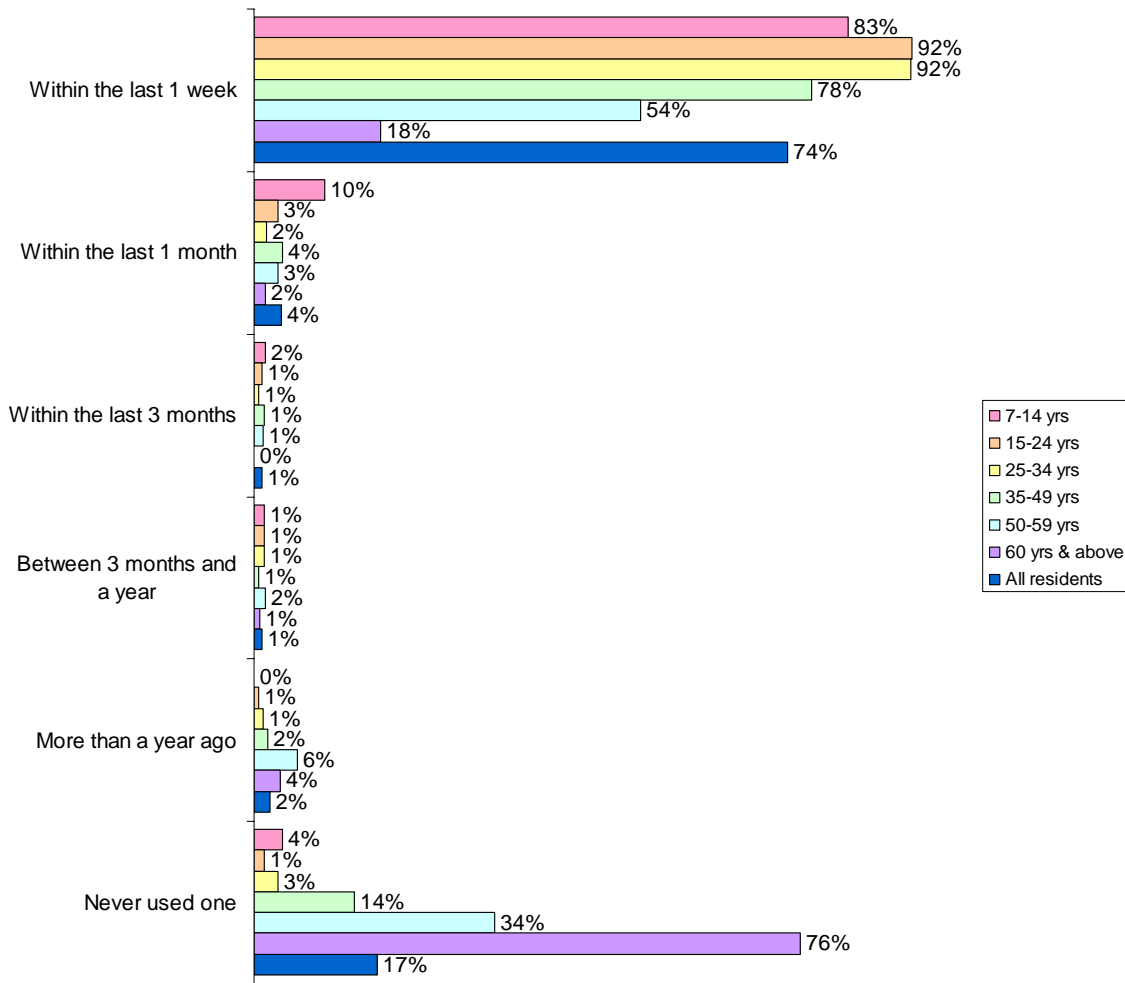
Usage of the Internet was more prevalent among the younger age groups (Figure C2.2). The proportion of Internet users aged 15 years and above increased to 68% in 2007 (Figure C2.3).



c. Most Recent Usage of the Internet

Slightly more than seven out of ten residents aged seven years and above, with access to the Internet at any location via any type of access equipment, had last used the Internet within the last one week (74%) (Figure C2.4).

Figure C2.4: Most Recent Usage of the Internet at Any Location, 2007

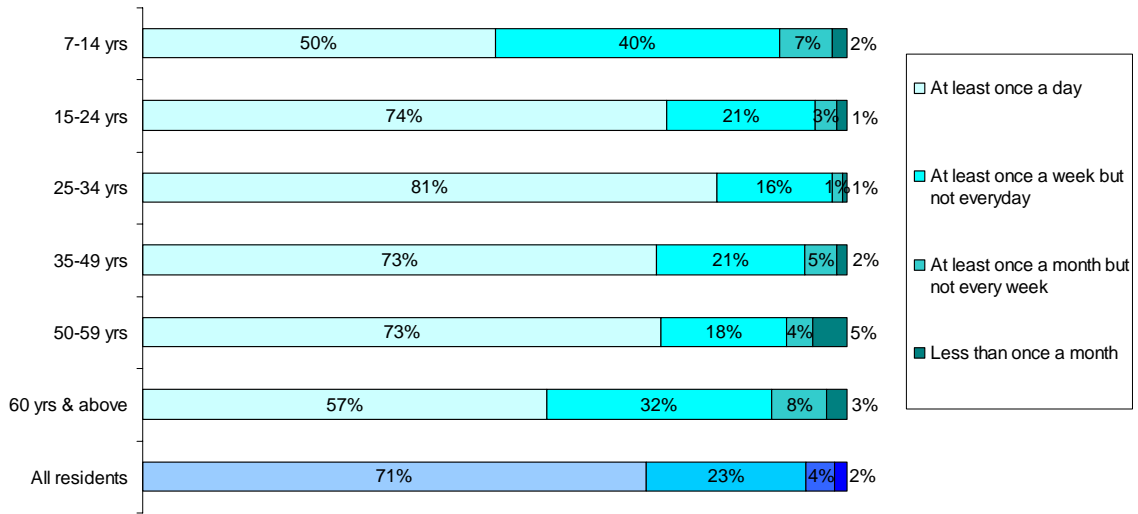


Base: Total resident population aged 7 years and above, with access to the Internet at any location

d. Frequency of Internet Use

More than 70% of residents aged 15 – 59 years use the Internet at least once a day (Figure C2.5).

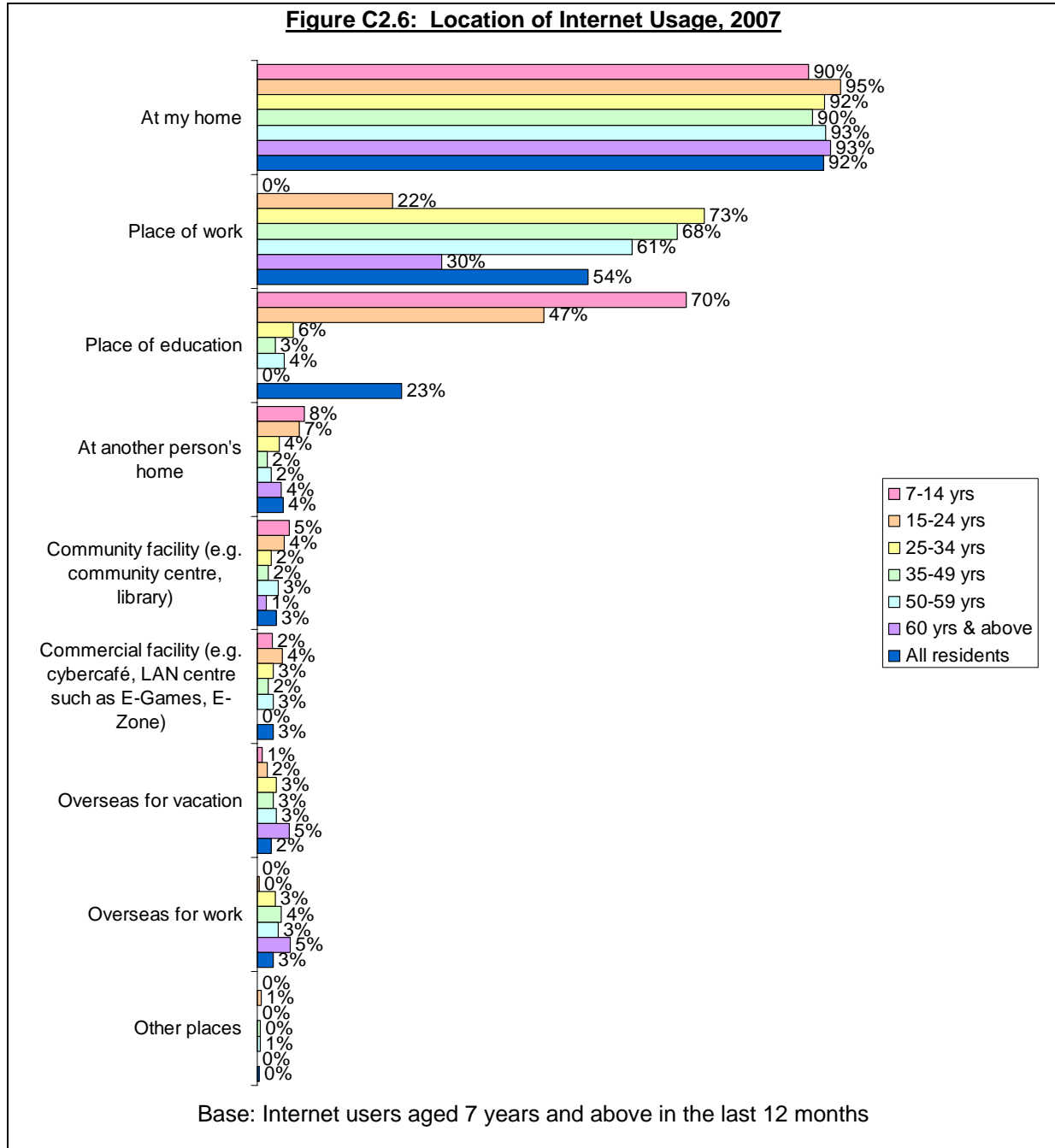
Figure C2.5: Frequency of Internet Usage at Any Location, 2007



Base: Internet users aged 7 years and above who had used the Internet in the last 12 months

e. Location of Internet Usage

Home and place of work were two most popular places to access the Internet (Figure C2.6).



C2.2 Main Reason for Not Using the Internet

The top reason cited for not using the Internet was the lack of interest ([Table C2.1](#)).

Table C2.1: Main Reason for Not Using the Internet, 2007

Main reason for not using the Internet	7-14 yrs	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	All residents
Not interested / No need to use	43%	40%	59%	60%	61%	62%	60%
Lack of knowledge, skills or confidence	19%	20%	16%	24%	29%	32%	28%
Equipment costs are too high	18%	11%	9%	7%	4%	2%	5%
Others	13%	21%	9%	5%	5%	2%	5%
Access subscription too costly	4%	8%	5%	2%	1%	0%	1%
Concern about exposure to inappropriate or harmful content	1%	0%	1%	1%	0%	0%	0%
Privacy concerns (e.g. abuse of personal information)	1%	0%	1%	0%	0%	0%	0%
Security concerns (e.g. viruses)	1%	0%	0%	0%	0%	0%	0%
No response	0%	0%	0%	0%	0%	1%	1%
Total:	100%	100%	100%	100%	100%	100%	100%

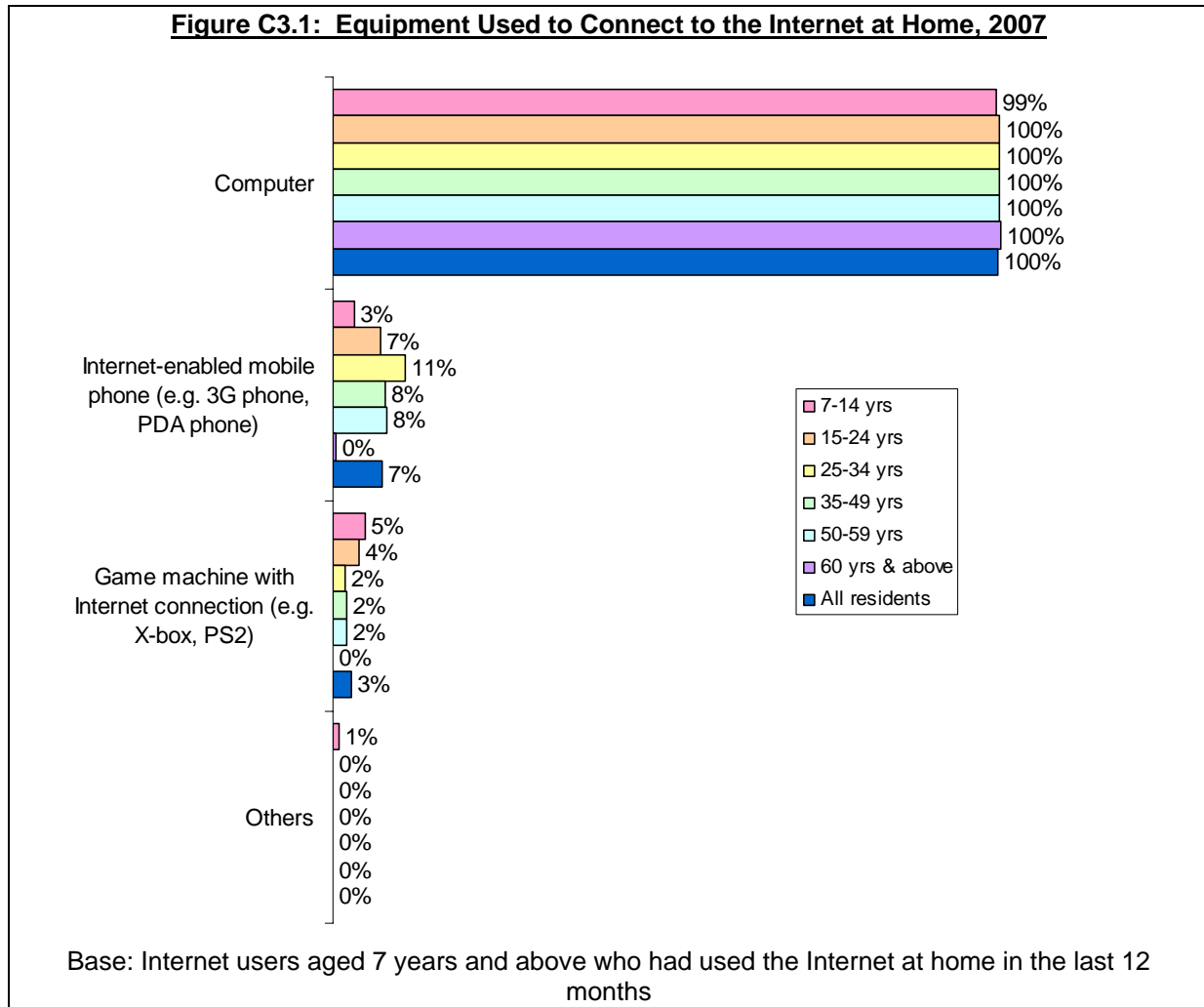
Base: Non-Internet users aged 7 years and above who had no access to the Internet at any location and had never used the Internet before

C3. USAGE OF THE INTERNET AT HOME

C3.1 Usage of the Internet at Home

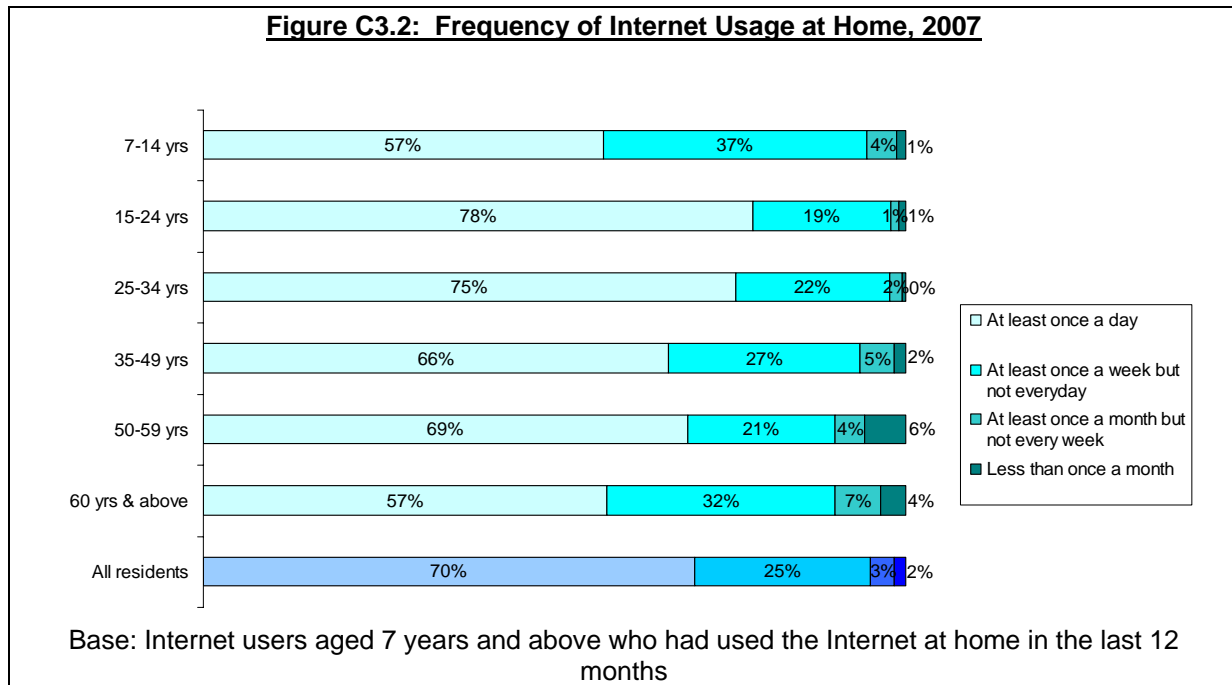
a. *Equipment used to connect to Internet at home*

In 2007, home Internet users connected to the Internet at home via a computer at home (100%) ([Figure C3.1](#)).



b. Frequency of Internet usage at home

Figure C3.2 shows the frequency of Internet usage at home.

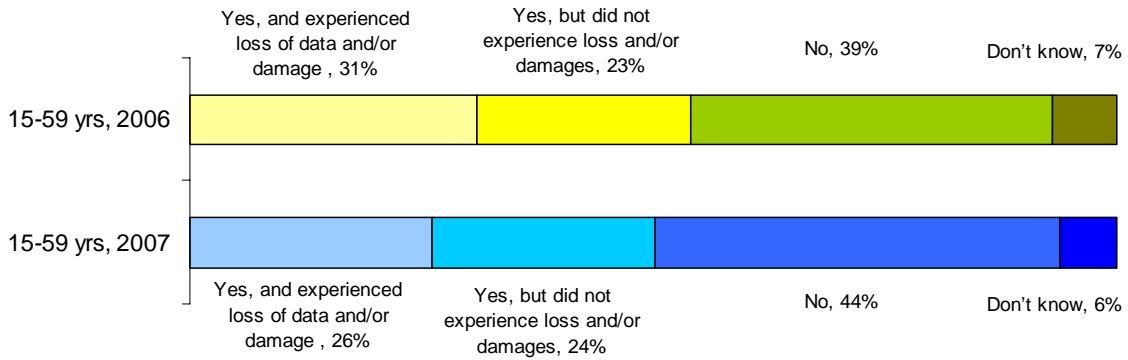


C3.2 Home Internet Security

a. Usage of Internet security software at home

26% of users who accessed the Internet at home via a computer experienced a virus attack on their computer and suffered loss and damages in the last 12 months. Almost one in four (24%) experienced a virus attack on their computer but did not experience loss and damages (Figure C3.3).

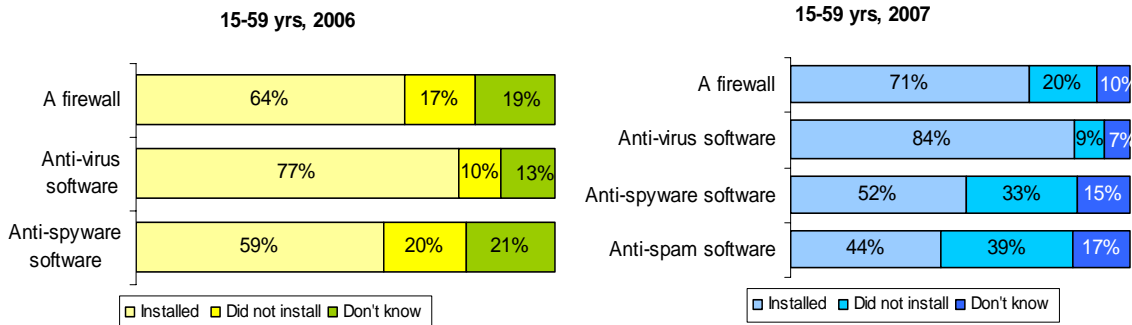
Figure C3.3: Experience of Virus Attack, 2006-2007



Base: Internet users aged 15 – 59 years who had used the Internet at home via a home computer in the last 12 months

To prevent virus attacks, about four in five users who accessed the Internet at home via a computer, installed virus checking software. Seven in ten users installed a firewall and five in ten users, anti-spyware on their computers (Figure C3.4).

Figure C3.4: Usage of Internet Security Software⁴, 2006-2007



Base: Internet users aged 15 – 59 years who had used the Internet at home via a home computer in the last 12 months

⁴ In 2006, the survey did not include question regarding installation of anti-spam software.

b. Reasons for not using Internet security software

Among the users who accessed the Internet at home via a computer and did not install any Internet security software, 40% cited that they did not think that there was a necessity to do so while 12% did not know that the protection was necessary (Table C3.1).

Table C3.1: Reasons for Not Using Internet Security Software, 2006-2007

Reasons for not using anti-virus, firewall or anti-spyware software	2007 15-24 yrs	2007 25-34 yrs	2007 35-49 yrs	2007 50-59 yrs	2007 15-59 yrs	2006 15-59 yrs
Don't think that the protection is necessary	45%	39%	39%	32%	40%	NA ⁵
Don't know that the protection is necessary	13%	11%	13%	11%	12%	41%
Costs of software or subscription	9%	13%	11%	18%	12%	28%
Lack of knowledge, skills or confidence	9%	8%	11%	9%	9%	18%
Others	5%	8%	5%	6%	6%	21%

Base: Internet users aged 15 – 59 years who had used the Internet at home via a home computer that was not protected by any software

⁵ In 2006, the survey question did not distinguish the difference between not knowing (“don’t know”) the necessity of protection and not agreeing (“don’t think”) with the necessity of protection.

C4. INTERNET APPLICATIONS AND SERVICES

C4.1 Internet Activities

Table C4.1 shows the usage of the Internet for various primary purposes by Internet users aged 15 and above in 2007. 69% of the Internet users used the Internet primarily for “sending or receiving emails” in the last 12 months.

Table C4.1: Usage of Internet Services, 2007

Primary Internet activity	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	15 yrs & above
For getting information	51%	64%	59%	55%	42%	57%
Other information or general Web browsing	34%	39%	34%	32%	25%	35%
About goods or services	16%	24%	23%	19%	8%	21%
From government organisations/public authorities (from websites or via email)	6%	17%	14%	14%	11%	12%
Related to health or health services	4%	10%	9%	9%	5%	8%
About job opportunities	9%	12%	6%	5%	7%	8%
For communicating	83%	81%	72%	75%	74%	77%
Sending or receiving emails	62%	76%	70%	73%	55%	69%
Instant messaging	45%	24%	10%	6%	3%	22%
Social networks (e.g. MySpace, Friendster, WhoLivesNearYou)	24%	9%	2%	2%	0%	10%
Blogging - Reading blogs that are created by others	16%	4%	2%	2%	0%	7%
Chat rooms	14%	5%	2%	2%	1%	6%
Telephoning over the Internet (VoIP)	5%	4%	3%	3%	24%	4%
Peer-to-Peer (e.g. Yahoo!, Napster, RealNetworks)	7%	4%	3%	3%	0%	4%
For creating content	24%	14%	7%	5%	5%	13%
Creating / maintaining own blogs	16%	4%	2%	3%	1%	7%
Sharing of own photos (e.g. Flickr, Snapfish)	6%	5%	2%	2%	0%	4%
Forum discussion / Posting of feedback, advice (e.g. product reviews)	4%	4%	2%	0%	1%	3%
Creating / maintaining own website	4%	4%	2%	1%	2%	3%
Broadcasting of self-produced videos (e.g. Youtube, Google Video)	4%	2%	1%	0%	1%	2%
Publishing of own writing / articles (e.g. Wikipedia, Fanfiction.net)	1%	2%	1%	0%	2%	1%
Sharing of self-created music	1%	1%	0%	1%	1%	1%
For online banking	13%	35%	29%	24%	15%	25%
Checking account information	10%	30%	23%	19%	8%	20%
Payment of bills	7%	24%	18%	15%	10%	15%
Transferring of funds to other bank accounts	6%	21%	16%	11%	13%	13%
For purchasing or ordering goods or services	5%	8%	7%	6%	5%	6%

Primary Internet activity	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	15 yrs & above
<i>For dealing with government organisations / public authorities</i>	7%	21%	19%	16%	14%	15%
Making online payments	4%	15%	11%	10%	6%	10%
Downloading or requesting forms	3%	9%	10%	8%	6%	7%
Completing or lodging forms online (e.g. income tax filing)	2%	11%	10%	8%	9%	7%
<i>For leisure activities</i>	57%	37%	27%	22%	17%	37%
Downloading or listening to online music	28%	14%	8%	7%	3%	15%
Reading online newspapers	9%	16%	13%	10%	8%	12%
Interactive online gaming	25%	7%	6%	4%	4%	12%
Playing or downloading computer or video games	18%	6%	4%	2%	2%	8%
Downloading or watching movies, short films or images	15%	7%	3%	3%	0%	7%
Reading online magazines	5%	8%	5%	4%	4%	5%
Listening to Web radio	6%	5%	2%	2%	0%	4%
Watching Web television	5%	4%	2%	3%	0%	3%
Downloading or uploading other media (e.g. digital photographs)	6%	3%	2%	0%	1%	3%
Reading electronic books	3%	5%	1%	1%	0%	2%
<i>For education or learning activities</i>	28%	12%	10%	7%	4%	15%
<i>For remote access</i>	25%	30%	25%	25%	13%	26%
Access documents/applications/collaborative tools from the office server (for work)	4%	25%	22%	23%	12%	17%
Access documents/applications/collaborative tools from the school server (for school work)	22%	8%	4%	3%	6%	10%
<i>For other activities</i>	17%	12%	12%	9%	6%	13%
Downloading software, patches or upgrades	13%	8%	8%	6%	5%	9%
Applying for jobs / Uploading of resumes	4%	4%	3%	1%	1%	3%
Others	0%	1%	2%	3%	0%	2%

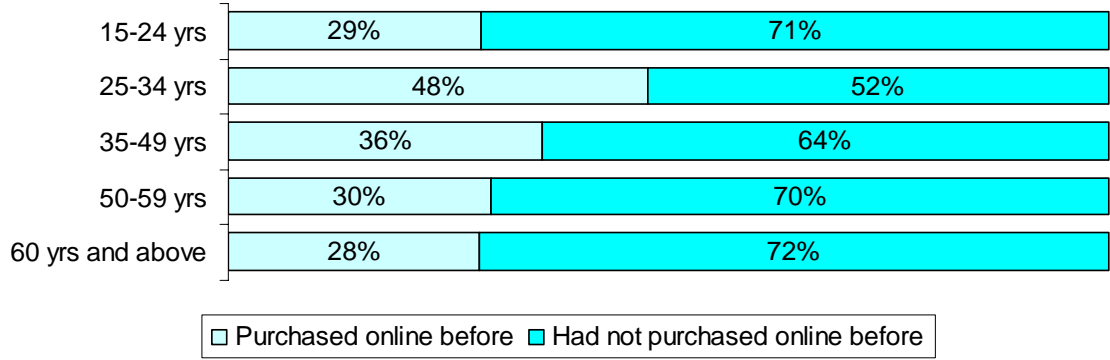
Base: Internet users aged 15 years and above who had used the Internet in the last 12 months

C4.2 Online Shopping

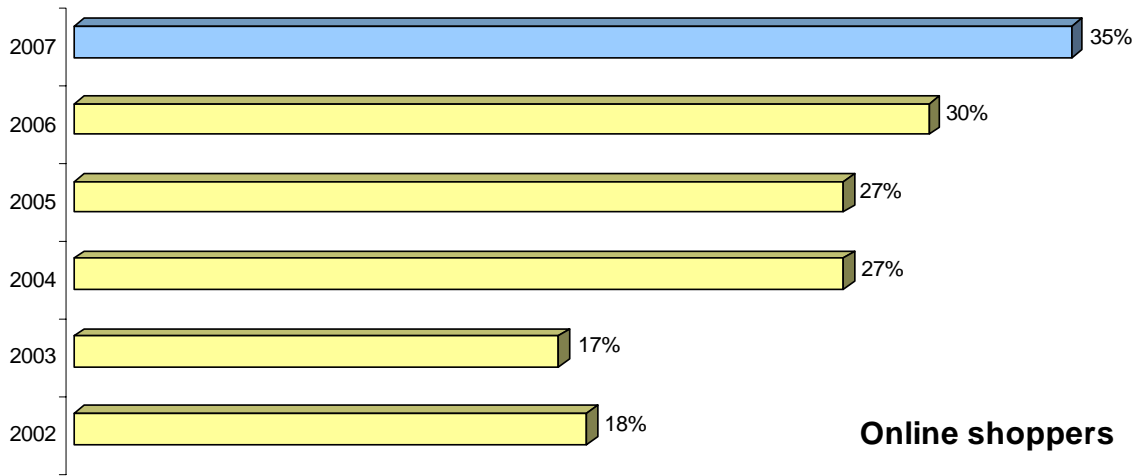
a. Online shoppers

Slightly more than three out of ten Internet users who had used the Internet in the last 12 months cited that they had made online purchases for private purposes before ([Figure C4.1](#)).

Figure C4.1: Online Shoppers, 2007



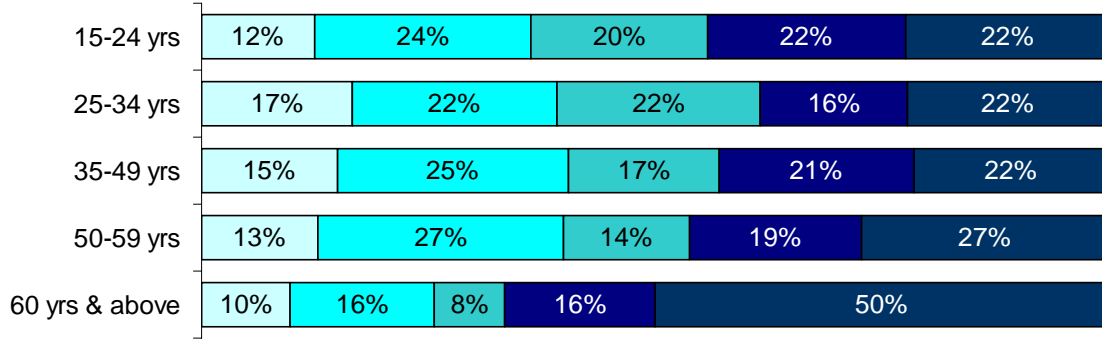
Online Shoppers, 2002-2007



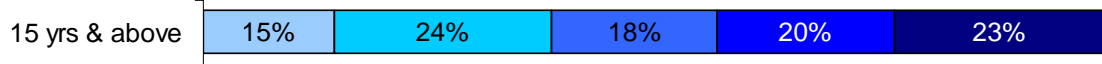
Base: Internet users aged 15 years and above who had used the Internet in the last 12 months

Among online shoppers who had ever made purchases online, 15% did so in the last one week while 24% had done so in the last one month (Figure C4.2).

Figure C4.2: Last Online Purchase Made, 2007



Within the last 1 week
 Within the last 1 month
 Within the last 3 months
 Between 3 months and a year
 More than a year ago



Within the last 1 week
 Within the last 1 month
 Within the last 3 months
 Between 3 months and a year
 More than a year ago

Base: Online shoppers⁶ aged 15 years and above who had used the Internet in the last 12 months

b. Items purchased online by online shoppers in the last 12 months

The two most popular goods or services bought online for private purposes in the last 12 months were tickets for entertainment events (37%) and travel products (31%) (Table C4.2).

⁶ An online shopper is a resident who had bought or ordered goods or services over the Internet before.

Table C4.2: Goods or Services Purchased over the Internet, 2006-2007

Items	2007 15-24 yrs	2007 25-34 yrs	2007 35-49 yrs	2007 50-59 yrs	2007 60 yrs & above	2007 15 yrs & above	2006 15 yrs & above
Ticket(s) for entertainment event(s)	31%	46%	35%	34%	25%	37%	34%
Travel product(s)	14%	29%	39%	40%	74%	31%	36%
Clothing, footwear, sporting goods or accessories	45%	36%	18%	12%	12%	29%	24%
Others	9%	16%	16%	18%	42%	15%	15%
Entertainment	15%	19%	11%	13%	8%	15%	23%
Computer equipment or parts	14%	12%	8%	16%	6%	12%	18%
Computer software	4%	13%	14%	6%	17%	10%	18%
Booking(s) for sports facility	9%	12%	7%	7%	0%	9%	12%
Food	9%	8%	8%	10%	0%	8%	8%
IT and telecommunication services (excluding software)	11%	8%	7%	9%	16%	8%	10%
Shares and Unit Trusts	3%	8%	9%	9%	3%	7%	9%
Groceries	1%	5%	5%	6%	0%	4%	4%
Photographic, telecommunication or optical equipment	3%	5%	2%	1%	0%	3%	5%
Insurance products	0%	4%	4%	0%	0%	3%	5%

Base: Internet users aged 15 years and above who had purchased online in the last 12 months

c. *Payment methods for online purchases*

Most online shoppers made payment for their goods or services via credit cards (77%) ([Table C4.3](#)).

Table C4.3: Payment Methods for Goods or Services Purchased Online, 2007

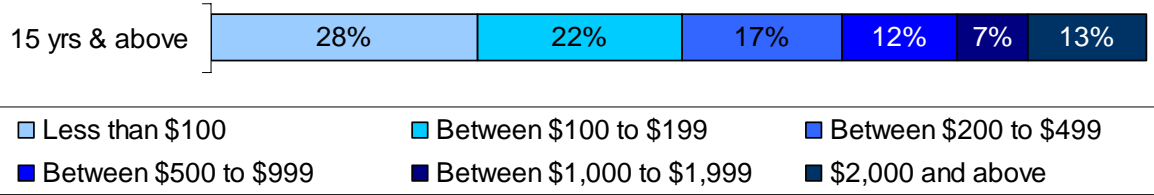
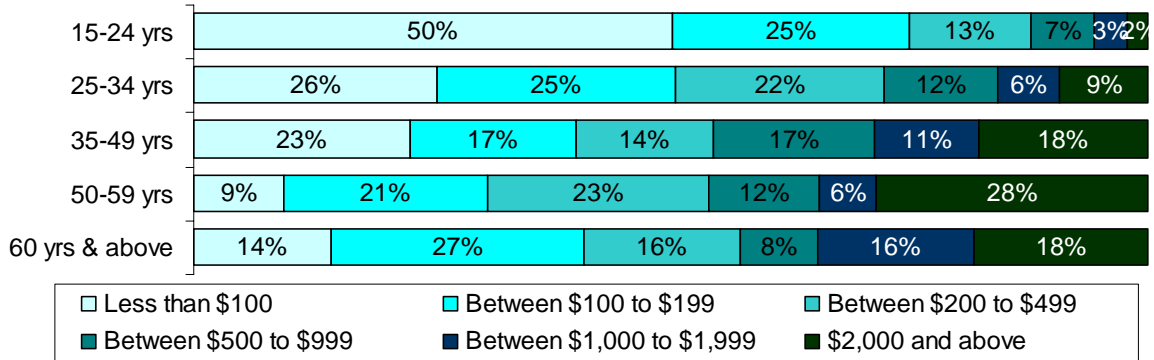
Items	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	15 yrs & above
Credit cards	48%	84%	85%	92%	97%	77%
Cash on delivery	27%	18%	11%	7%	11%	16%
Direct debit / pay using bank account	28%	11%	12%	6%	3%	15%
eNETS virtual account / PayPal	12%	16%	9%	8%	0%	11%
Payment using mobile phone or via the telecommunication bills	1%	1%	0%	0%	0%	0%

Base: Online shoppers aged 15 years and above who had purchased online in the last 12 months

d. Value of online purchases

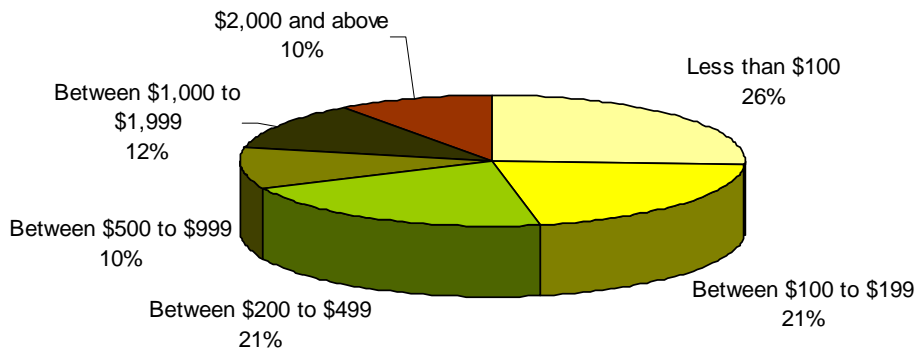
28% of the online shoppers who had purchased online for private purposes in the last 12 months, purchased goods that were valued at less than \$100 (Figure C4.3). At the other end of the spectrum, a higher proportion (13%) purchased goods worth \$2,000 and above.

Figure C4.3: Value of Online Purchases, 2007



Base: Online shoppers aged 15 years and above who had purchased online in the last 12 months

Value of Online Purchases, 2006



Base: Online shoppers aged 15 years and above who had purchased online in 2006

e. Main reason for not shopping online

Almost two out of five Internet users cited the lack of interest as the main reason for not purchasing or ordering online goods or services for private purposes. Preference to shop in person (24%) was the next most common reason cited for not doing so (Table C4.4).

In addition, the other two common reasons cited for not doing so were due to trust issues (10%) and security issues (10%).

Table C4.4: Main Reasons for Not Buying or Ordering Goods or Services over the Internet, 2006-2007

Main reasons	2007 15-24 yrs	2007 25-34 yrs	2007 35-49 yrs	2007 50-59 yrs	2007 60 yrs & above	2007 15 yrs & above	2006 15 yrs & above
Not interested	41%	38%	39%	38%	45%	39%	40%
Prefer to shop in person or deal personally with a service provider	24%	25%	25%	20%	32%	24%	26%
Trust concerns	10%	13%	10%	9%	11%	10%	8%
Security concerns	7%	10%	12%	14%	5%	10%	10%
Privacy concerns	3%	6%	7%	7%	3%	5%	5%
Others	5%	3%	4%	6%	2%	4%	4%
Lack of means to make online payments	7%	2%	1%	1%	1%	3%	2%
Lack of confidence, knowledge or skills	2%	2%	3%	6%	2%	3%	5%
Inconvenient payment methods	3%	1%	1%	0%	0%	1%	1%
Speed of Internet connection too slow	0%	0%	0%	0%	0%	0%	NA

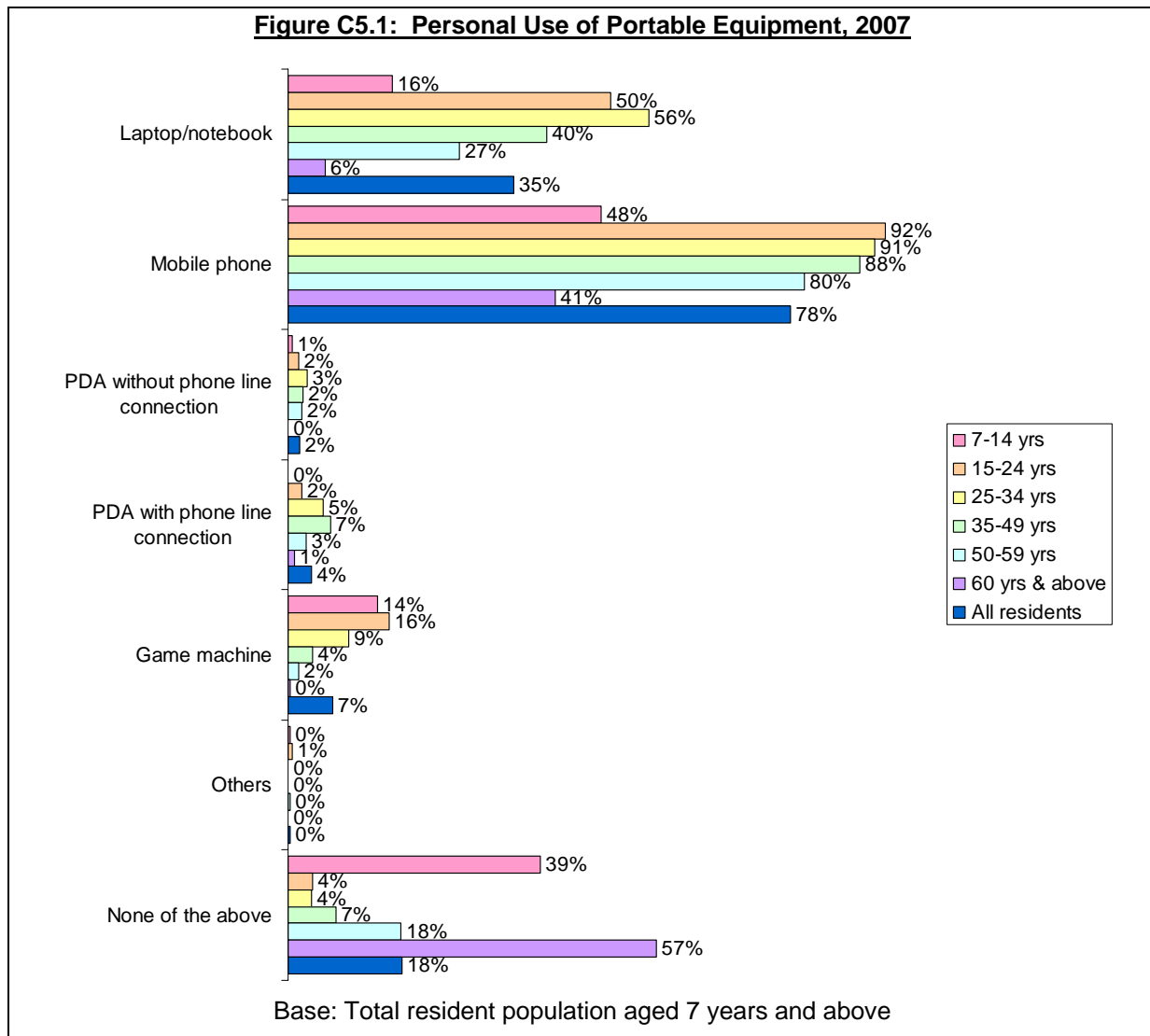
Base: Internet users aged 15 years and above who had used the Internet in the last 12 months but did not purchase online in the last 12 months

C5. USAGE OF PORTABLE INFOCOMM EQUIPMENT

C5.1 Personal Use of Portable Equipment by Individuals

a. Personal use of portable equipment

In 2007, 82% of the total resident population aged seven years and above were portable equipment users in the last 12 months (Figure C5.1). Among the total resident population, 78% were GSM/GPRS mobile phone users while 35% were laptop users.



b. Activities conducted by portable equipment users

In 2007, the majority of the portable equipment users aged seven years and above used their portable equipment for communications purposes in the last 12 months (Table C5.1). "Sending or receiving SMS" was the most common usage of the portable equipment (81%).

Table C5.1: Usage of Portable Equipment, 2007

Type of usage	7-14 yrs	15-24 yrs	25-34 yrs	35-49 yrs	50-59 yrs	60 yrs & above	All residents
Sending or receiving SMS	73%	90%	89%	84%	70%	48%	81%
Email	12%	29%	34%	21%	14%	6%	22%
Web browsing	7%	25%	23%	14%	11%	3%	16%
Instant messaging	9%	22%	16%	6%	2%	0%	10%
Online Government services	0%	5%	18%	11%	8%	3%	10%
Downloading or listening to online music	9%	23%	10%	5%	3%	1%	9%
Mobile banking	0%	5%	17%	9%	6%	1%	8%
Sending or receiving MMS	7%	8%	10%	9%	7%	6%	8%
Reading online newspapers	1%	10%	14%	7%	4%	1%	8%
Playing or downloading computer or video games	18%	16%	8%	3%	2%	0%	8%
Paying for goods or services	0%	5%	13%	7%	4%	1%	7%
Downloading or watching movies, short films or images	5%	16%	5%	2%	1%	0%	6%
Blogging - Reading blogs created by others	4%	14%	4%	1%	1%	0%	5%
Reading online magazines	1%	6%	8%	3%	1%	0%	4%
Social networks (e.g. MySpace, Friendster, WhoLivesNearYou)	3%	11%	5%	1%	0%	0%	4%
Listening to Web radio	1%	8%	5%	3%	1%	0%	4%
Creating / maintaining own blogs	4%	10%	2%	1%	0%	0%	3%
Chat rooms	4%	8%	4%	1%	1%	0%	3%
Downloading or uploading other media (e.g. digital photographs)	2%	8%	3%	1%	0%	0%	3%
Sending or receiving digital photograph(s)	3%	6%	4%	1%	1%	0%	3%
Peer-to-Peer (e.g. Yahoo!, Napster, RealNetworks)	2%	6%	3%	1%	0%	1%	2%
Downloading ringtones, mobile games	2%	3%	3%	2%	2%	1%	2%
VoIP (e.g. Skype)	1%	5%	4%	1%	0%	1%	2%
Watching Web television	1%	5%	3%	1%	1%	0%	2%
Reading electronic books	1%	3%	4%	1%	1%	1%	2%
Forum discussion / Posting of feedback, advice (e.g. product reviews)	0%	4%	2%	1%	0%	0%	1%

Base: Portable equipment users aged 7 years and above

ANNEX A: GLOSSARY

Terms	Definition
3G	3G (or 3-G) is short for third-generation mobile communications technology.
ADSL	Asymmetric Digital Subscriber Line (ADSL), a form of DSL, a data communications technology that enables faster data transmission over copper telephone lines than a conventional modem can provide.
Broadband	Internet connection speeds of <u>more than 256 kbps (kilobits per second)</u> .
Blogging	A blog is an online diary is a personal diary or journal that is published on the world wide web on a personal website or a diary hosting website. Blogging is the act of writing or reading one's blog.
Cable modem	A modem designed to operate over <u>cable TV</u> lines.
Chat room	A chat room or chatroom is an online site in which people can chat online (talk by broadcasting messages to people on the same site in real time).
Computer	The term "computer" includes desktops and laptops unless otherwise stated.
Computer access at home	Computer access at home refers to access to home computer owned by household and/or computer owned by employer but brought home by family member for computer access at home.
Computer ownership	Computer ownership refers to home computer owned by household.
Computer user	Computer user include user that have used the computer at any location in the last twelve months unless otherwise stated.
Cybercafe	A cafe whose customers sit at computer terminals and log on to the internet while they eat and drink.
Dial-up	Dial-up access is a form of data access (mainly used for Internet access) in which the client uses a modem to connect a computer to a telephone line and dials into an Internet service provider's (ISP) node to establish a modem-to-modem link, which is then routed to the Internet.
Forum	An Internet forum is a facility on the World Wide Web for holding discussions, or the web application software used to provide the facility. A forum is essentially a website composed of a number of member-written threads. Each thread entails a discussion or conversation in the form of a series of member-written posts. These threads remain saved on the forum website for future reading indefinitely or until deletion by a moderator.
GPRS	General Packet Radio Service (GPRS) is a mobile data service available to users of GSM mobile phones. It is often described as "2.5G", that is, a technology between the second (2G) and third (3G) generations of mobile communications.
GSM	Global System for Mobile Communications (GSM), one of the leading digital cellular systems. GSM uses narrowband TDMA, which allows eight simultaneous calls on the same radio frequency.
Household	Household refers to a group of two or more persons living together in the same house and sharing common food or other arrangements for essential living. It also includes a person living alone or a person living with others but having his own food arrangements. Although persons may be living in the same house, they may not be members of the same household.
Instant Messaging	A popular use of the Internet in which Net-connected people send messages to each other in real time (ie. as it is happening) by typing them into their computer screens. Each person sees what the other has typed and can respond instantly. Examples of instant messaging services include MSN Messenger, Yahoo! Messenger, ICQ, etc.

Terms	Definition
Internet-enabled mobile phone	Mobile phones that can be used to connect to the Internet and browse the World Wide Web.
Internet user	Internet user includes a user that has used the Internet at any location via any Internet-enabled equipment in the last twelve months unless otherwise stated.
LAN	A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings and LANs connect workstations and personal computers.
Narrowband	Internet connection speeds of <u>256 kbps (kilobits per second)</u> or slower.
PDA	Personal Digital Assistant (PDA) is a handheld device that combines computing, telephone/fax, Internet and networking features. A typical PDA can function as a cellular phone, fax sender, Web browser and personal organizer.
Peer-to-peer	A peer-to-peer (or P2P) computer network is a network that relies primarily on the computing power and bandwidth of the participants in the network rather than concentrating it in a relatively low number of servers. P2P networks are typically used for connecting nodes via largely ad hoc connections.
Portable	The term means mobility i.e. equipment that can be brought along with the individuals while they are on the move.
Private housing	Private housing refers to landed properties, private condominiums and apartments.
Public housing	Public housing refers to HDB flats.
Resident population	Singapore citizens and permanent residents are classified as Singapore residents or the resident population.
School-going children	School-going children refer to current students who are enrolled between primary education and pre-university/junior college education level.
Skype	Skype (IPA pronunciation: [skɑɪp], i.e. "skype", rhymes with "type") is a proprietary peer-to-peer Internet telephony (VoIP) network. It competes against existing open VoIP protocols such as SIP, IAX, and H.323.
Social networks	In Internet social networks, an initial set of founders sends out messages inviting members of their own personal networks to join the site. New members repeat the process, growing the total number of members and links in the network. Sites then offer features such as automatic address book updates, viewable profiles, the ability to form new links through "introduction services," and other forms of online social connections.
Telecommuting	The practice of working at home and communicating with fellow workers through the phone, typically with a computer and modem.
VoIP	Voice over Internet Protocol (VoIP), also called IP Telephony, Internet telephony, Broadband telephony, Broadband Phone and Voice over Broadband, is the routing of voice conversations over the Internet or through any other IP-based network.
Web TV	A web TV is a specially-adapted television set designed to allow internet connection, or more commonly, a set-top box (i.e. cable decoder) which connects to a standard TV for the same purpose. The typical setup includes a web browser, cord or wireless (i.e. bluetooth) keyboard and connection to the Internet (i.e. using modem, cable and so on).
Web Radio	Web radio (or Internet radio) is a broadcasting service transmitted via the Internet. Not every web "radio station" has a corresponding traditional radio station. Many web radio stations are completely independent from traditional ("terrestrial") radio stations and broadcast only on the Internet.