

## Public Health Issues of Excessive Use of Internet, Computers, Smartphones and Similar Electronic Devices

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SEMINAR ON PUBLIC HEALTH ISSUES OF EXCESSIVE USE OF INTERNET, COMPUTERS, SMARTPHONES AND SIMILAR ELECTRONIC DEVICES  
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## WHO meetings on behavioural disorders associated with excessive use of the Internet and electronic devices

- On public health implications of excessive use of the Internet, smartphones and similar electronic devices (Tokyo, Japan, August 2014)
- On clinical descriptions, diagnostic guidelines and priorities for international research (Seoul, Republic of Korea, August 2015)
- *On policy and program responses (Hong Kong SAR, 6-8 September 2016)*



## Why on public health agenda?

- With increasing use of the internet-based technologies some adverse health consequences are documented
- Children and adolescents have particular high levels of exposure
- Rapidly developing communication and gaming opportunities present new challenges for public health
- Limited knowledge on the impact on physical health and psychosocial development
- Acknowledgement of specific disorders due to excessive use of the Internet and electronic gaming and communication platforms
- High profile cases in many countries contributing to a "moral panic"



## Impact on physical health

- Physical inactivity, poor diet
- Eye and Vision symptoms due to prolonged screen exposure
- Musculoskeletal problems due to prolonged use of electronic screen products
- Hearing damage due to high volume audio entertainment
- Injuries and accidents while doing other tasks
- Potential infection transmission.



## Impact on psychosocial development and functioning

- Cyber-bullying
- Hindering social skill development
- Sleep deprivation
- Risky sexual and aggressive behaviours
- Reduced work and academic performance
- Family problems
- Impact on the overall well-being
- Disorders of regulation of gaming and use of the Internet



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## First WHO meeting on public health implications of excessive use of the Internet, computers, smartphones and similar electronic devices

- Organized in Tokyo, Japan, 27-29 August 2014, in collaboration with Kurihama Medical and Addiction Centre
- Held at the Main Meeting Hall of the Foundation for Promotion of Cancer Research at the National Cancer Research Centre in Tokyo
- Attended by experts from 11 countries and 4 WHO regions
- Report of the meeting published by WHO in 2015
- Paved the way for further WHO work in this area.



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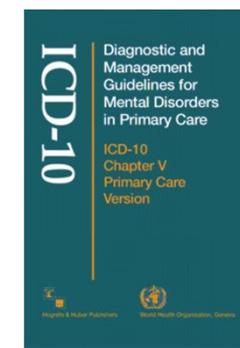
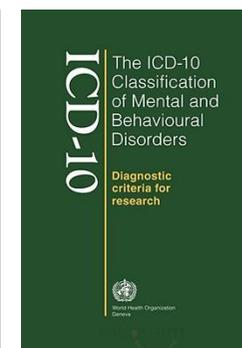
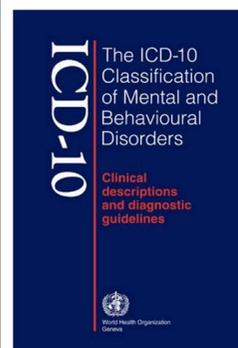
## First WHO meeting on public health implications of excessive use of the Internet, computers, smartphones and similar electronic devices (Tokyo, Japan, 2014): conclusions

- Need to intensify international research to address current knowledge gaps in this area and generate essential information for development of prevention and treatment policies
- Need for documenting and evaluating policies, strategies and interventions aimed at preventing and reducing health risks and disorders associated with relatively new phenomenon of excessive use of the Internet and digital gaming
- Need to define scope, phenomenology and typology of disorders which share signs and symptoms with substance use disorders and "behavioural addictions".



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## ICD-10 Chapter V: Mental and Behavioural Disorders



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## Tenth and eleventh revisions of International Classification of Diseases

- ICD-10 published in 1992 (also Chapter 5)
- Implementation started in 1994
- About 120 countries report mortality statistics to WHO according to ICD-10, and many countries are using ICD for morbidity statistics and for billing in health insurance
- 11<sup>th</sup> revision started in 2007, beta version produced in May 2012, in 2015 – independent external review, still in progress
- A "release candidate" of ICD-11 will be presented at the ICD Revision Conference in Tokyo, Japan, in October 2016



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## Second WHO meeting on Behavioural Disorders Associated with Excessive Use of the Internet, Computers, Smartphones and Similar Electronic Devices: *Clinical Descriptions, Diagnostic Guidelines and Priorities for International Research*

- Organized in Seoul, Republic of Korea, 24-26 August 2015, in collaboration with Korean Academy of Addiction Psychiatry and support from the Government of the Republic of Korea
- Held at the Catholic University of Korea
- Attended by experts from 17 countries and 6 WHO regions
- Report of the meeting released by WHO in 2016
- Important milestone in ICD-11 development for disorders due to addictive behaviours.



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## WHO Meeting on behavioural disorders associated with excessive use of the Internet (Seoul, August 2015)



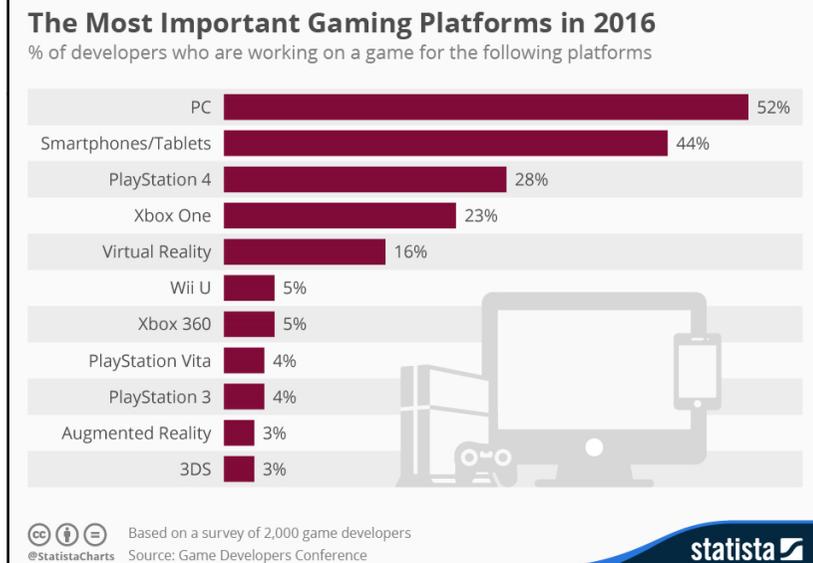
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## "Behavioural addictions" in the draft of ICD-11

- Introduction of a section "Disorders due to substance use and addictive behaviours" in Chapter 7
- Conceptual integration of "Gambling disorder" with disorders due to substance use (in ICD-10 – under "Impulse control disorders")
- Introduction of a new diagnostic category "Gaming disorder"
- Two sub-types for gambling and gaming disorder:
  - Gaming disorder, predominantly online
  - Gaming disorder, predominantly offline



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## Draft ICD-11 Chapter 24: Factors Influencing health status and contact with health services

### Factors associated with health behaviors:

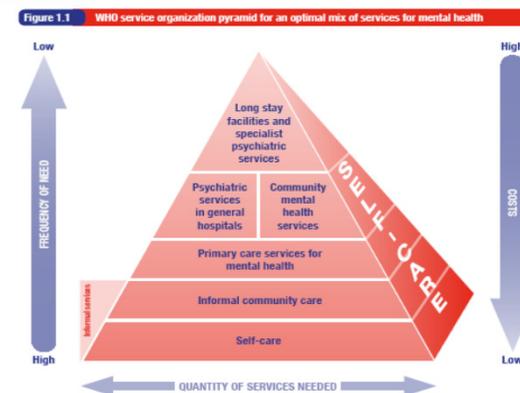
- Hazardous substance use
  - Alcohol
  - Nicotine
  - Drugs
    - Opioids
    - Cannabis...
- **Hazardous gambling or betting**
- **Hazardous gaming.**

## Draft ICD-11 definition of hazardous gaming

Hazardous gaming refers to a pattern of gaming, either online or offline, that appreciably increases the risk of harmful physical or mental health consequences to the individual or to others around this individual. The increased risk may be from the frequency of gaming, from the amount of time spent on these activities, from the neglect of other activities and priorities, from risky behaviours associated with gaming or its context, from the adverse consequences of gaming, or from the combination of these. Hazardous gaming has not yet reached the level of having caused harm to physical or mental health of the user or others around the user. The pattern of gaming is often persists in spite of awareness of increased risk of harm to the individual or to others.

**Exclusions:** Gaming disorder (6D61)

## WHO Service Organization Pyramid for Mental Health (WHO, 2003)



## Priorities for international research

- Conducting/analysing data from nationally representative datasets to yield information on prevalence, risk factors and incidence rates
- Undertaking in-depth, qualitative studies about lived experiences;
- Developing diagnostic criteria for assessing behavioural disorders;
- Identification of robust, empirically-based thresholds, demarking those with a disorder that causes clinically significant impairment from those with a normative experience...



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## Third WHO meeting "POLICY AND PROGRAM RESPONSES TO MENTAL AND BEHAVIORAL DISORDERS ASSOCIATED WITH EXCESSIVE USE OF THE INTERNET AND OTHER COMMUNICATION AND GAMING PLATFORMS"

- Organized in Hong Kong, SAR, China, 6-8 September 2016, in collaboration with and support from the Hong Kong SAR Department of Health
- Held at Regal Kowloon Hotel, Hong Kong
- Attended by experts from 20 countries and 5 WHO regions
- Report of the meeting to be prepared by WHO
- Important milestone in mapping prevention and treatment programs around the world and preparing field testing of ICD-11 for gaming and gambling disorders.



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## Main objectives of the meeting

- Present and discuss policies and programs developed and implemented in different countries of the world with an objective to prevent and reduce public health problems associated with excessive use of internet, computers, smartphones and similar electronic devices.
- Present and discuss treatment programs developed and implemented with an objective of early identification and treatment of disorders associated with excessive use of internet, smartphones and other communication and gaming platforms.
- Discuss the draft taxonomy, clinical descriptions, diagnostic guidelines and field testing for draft ICD-11 disorders associated with excessive use of internet, smartphones and other communication and gaming platforms.



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## Case examples of prevention policies and strategies in selected countries

(from the meeting background paper prepared by D. King)

Case examples of prevention policy and strategies for hazardous gaming or Internet use and gaming disorder or IA across regions

	South Korea	China	Japan	United States	United Kingdom	Germany	Australia
Legislation/enforcement	Shutdown Law (2011); Game Industry Promotion Act (2009)	Protection of Minors Act (2009); Online Game Anti-Addiction System	Act on Development of an Environment that Provides Safe and Secure Internet Use for Young People (2008)	None	None	None	None
Awareness; Education; Guidelines	Korea Internet Addiction Prevention Centers (IAPC); KOCCA; Wee Center; I Will Center;	"Be NetWise" Internet Education Campaign in 2009/2010	Ministry of Internal Affairs and Communications	American Academic of Pediatrics; Screen-time recommendations; NGO websites	UK Council for Child Internet Safety; UK Safer Internet Centre; Childnet International	Federal Ministry of Health drug and addiction policy initiatives	Australian Communications and Media Authority; Raising Children.net; Cybersmart
Population screening	Korea Internet Addiction Prevention Centers Korea Youth Counseling and Welfare Institute	Government-funded independent research	The Ministry of Health, Labor, and Welfare survey (2012)	Government-funded independent research	Government-funded independent research	Government-funded independent research	The Mental Health of Children and Adolescents Survey
Early/Targeted prevention	Korea Internet Addiction Prevention Center(IAPC); Korea Youth Counseling and Welfare Institute	Social Welfare Department School-based programs	No public service	No public service	No public service	No public service	No public service
Mental health services	Korea Youth Counseling and Welfare Institute; I Will Center; Wee Center;	Various public and private mental health services	Kanbama Medical and Addiction Center (outpatient service)	No public service; Multiple private providers	Centre for Compulsive and Addictive Behaviours (ended)	LVR Clinic in Bonn	No specific public service; Multiple private providers; NGO services



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## Some conclusions from the meeting in Hong Kong SAR, China

- Marked variability between countries and jurisdictions in in prevention and treatment approaches to disorders and health conditions associated with excessive gaming and the Internet use. Little work conducted globally on prevention.
- Increasing recognition of public health aspects of excessive use of the internet and growing treatment demand for gaming disorder and other disorders due to addictive behaviours in many countries.
- Information sharing and cross-cultural collaboration is a key future priority.
- Urgent need to clarify the public health impact of gaming disorder and other disorders associated with excessive use of the Internet and electronic devices.



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## Some conclusions from the meeting in Hong Kong SAR, China (continued)

- Clear need for more research, including effectiveness of prevention programs, randomised control trials of treatment interventions and longitudinal studies exploring impact of excessive Internet use on psychosocial development.
- Development under the auspices of WHO of an international standardised risk assessment instrument would facilitate cross-national comparisons.
- There is a clear need to improve education, training and awareness of issues related to excessive gaming amongst educators, clinicians and general public – multisectoral approach in needed.



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## WHO Department of Mental Health and Substance Abuse Management of Substance Abuse

**Thank you for your attention**

Further information at:

[http://www.who.int/substance\\_abuse/](http://www.who.int/substance_abuse/)

[http://www.who.int/mental\\_health/en/](http://www.who.int/mental_health/en/)



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