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GAMBLING RESEARCH
at **UBC**

**Players, Products and Gambling Environments:
New Directions**

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New Horizons in Responsible Gambling
10 March 2022

UBC
a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Department of Psychology

Disclosures

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2017

News Horizons 2017

- Gambling problems arising from a 'player – product' interaction:

  - Most research on gambling (esp. addiction science, psychology) has emphasized individual risk factors

  - Gambling product characteristics are equally important

- This interplay is shaped by the wider gambling environment

- Implications for regulation and RG

Figure 4
A Public Health View of Disordered Gambling
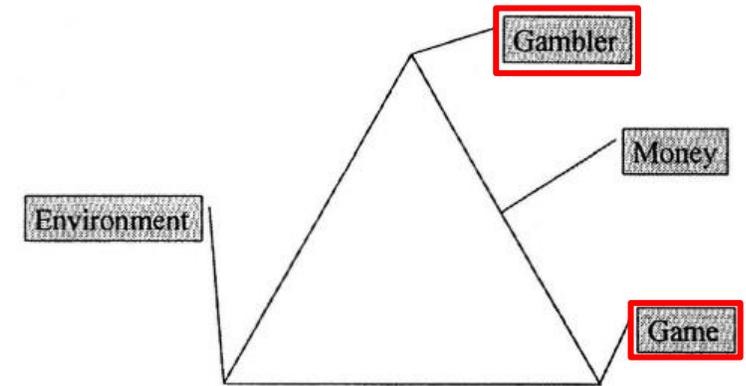
Korn & Shaffer 1999: interplay of the gambler, the game & the environment

Since 2017: adopting a public health approach

- Public health approach considers harms & wellbeing in full population, rather than <1% seeking treatment

    – Harms ≠ symptoms

    – Harms in affected others

    – Financial harms can extend for years after the gambling episode (e.g. poor credit)

    (anticipated in the BC Lower the Stakes report 2013 & 2015 Plan for Public Health)

Langham *et al. BMC Public Health* (2016) 16:80
DOI 10.1186/s12889-016-2747-0

BMC Public Health

RESEARCH ARTICLE   Open Access

CrossMark

Understanding gambling related harm: a proposed definition, conceptual framework, and taxonomy of harms

Erika Langham[1*], Hannah Thorne[2], Matthew Browne[3], Phillip Donaldson[3], Judy Rose[3] and Matthew Rockloff[3]

the**bmj**

BMJ 2019;365:l1807 doi: 10.1136/bmj.l1807 (Published 8 May 2019)   Page 1 of 5

Check for updates

ANALYSIS

Gambling and public health: we need policy action to prevent harm

OPEN ACCESS

Prevention of harms related to gambling requires investment in population based approaches, say **Heather Wardle** and colleagues

Heather Wardle *assistant professor*[1], Gerda Reith *professor of social sciences*[2], Erika Langham *lecturer in health promotion*[3], Robert D Rogers *professor of psychology*[4]

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Gambling and the Health of the Public: Adopting a Public Health Perspective

David A. Korn
Department of Public Health Sciences, University of Toronto;
Division on Addictions, Harvard Medical School[1]

Howard J. Shaffer
Division on Addictions, Harvard Medical School

Societal and commercial
Policy and regulatory climates and associated corporate norms and practices; for example, ineffective regulation, certain product characteristics, advertising environments or gambling availability

Community
Characteristics of local areas and cultures in local spaces or broader social groups, like schools and workplaces; for example, access and availability of gambling locally, poor social or cultural capital, or greater deprivation
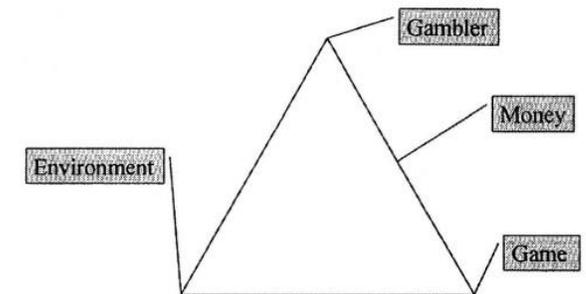
Families and social networks
Factors in an individual's closest relationships, such as family, partners, and peers; for example, cultures of gambling in family or peer groups or poor social support

Individual
Individual characteristics, life events, personal history, and cognitive characteristics; for example, negative motivations for gambling, early gambling experiences, engagement in other risk behaviours

Figure 4
A Public Health View of Disordered Gambling

Gambler
Money
Environment
Game

Wardle et al 2019: social-ecological model of gambling: people who gamble are embedded with families and social networks, and wider cultural groups and regulatory environments (of which 'product characteristics' are simply one of many facets)

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Person or player

- Some people are more at risk of developing a gambling problem than others; the playing field is not level

- Personal vulnerability is shaped by many factors, both genes and life events (both early and recent)

- Generally speaking, these risk factors are not unique to gambling but convey risk to a range of mental health problems and negative outcomes

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Meta-analysis of risk factors in prevalence surveys

EFFECT SIZES FOR PROBLEM GAMBLING RISK FACTORS

Large Effect Size
Internet gambling
EGM and slot machines (excluding casino)
EGM and slot machines (including casino)
Poker

Medium Effect Size	
Attempted suicide	Games of skill
Casino table games	EGM and slot machines (casino only)
Cardrooms	
Daily lottery	Ever been incarcerated
Problems due to alcohol/drugs	Horse, harness, or greyhound races
Keno	
Problems due to alcohol	Internalizing symptoms
Casino gambling (EGM, slots, table games)	Depression issues
	Illicit drug use
Suicidal thoughts	Daily tobacco use
Card games	Ever been arrested or detained
Pulltabs	Any mental health problem
Pari-mutual (sports/races)	Sports select
Cocaine use	Binge drinking
Sports (all)	Marijuana use
Anxiety issues	Private betting: card/board games with friends/family
Family member ever had a gambling problem	Bingo

Small Effect Size
Sports pools
Instant win/scratch
Sports events
Poor physical health
Out-of-province casino
Ethnicity
Age
Ever filed bankruptcy
Gender
All lottery games (weekly, pulltab, instant)
Marital status
Education

|	
	Gambling Activity
	Psychosocial
	Substance Use
	Socio-Demographic

Allami et al 2021

Meta-analysis of 104 gambling prevalence surveys (N per risk factor < 273,946)

Odds ratios low for socio demographic factors (inc. gender, age, income)

Largest effect sizes were for certain products (online gambling, EGMs, Poker)

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Products

- Different gambling products vary in their degree of associated harm

- These differences can be analyzed as a number of structural features ('ingredients')

- These features may also combine to create powerfully immersive products (e.g. fast game + intense AV feedback + strong sense of control)
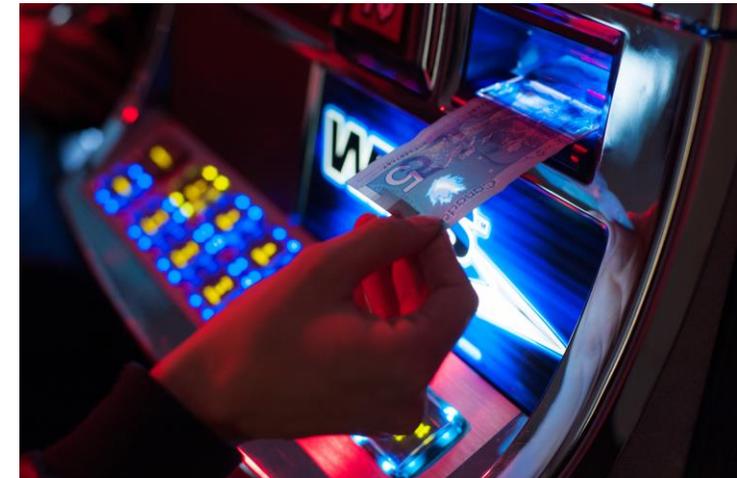
Scoring ingredients to estimate product risk

Event frequency (over 6 days – under 15 seconds)

Multi-game / stake opportunities

Prize-back ratio

Light and sound effects (none; light or sound; both)

Variable stake size

Availability (distance to gamble: within 100km – at home or work)

Jackpot size

Cashout interval

Near misses (intentionally generated: Y/N)

Continuity

Cashless casinos?

- Gambling products use a range of monetary payment method: coins, bills, chips, TITO, bank card, credit card, e-wallet…

- COVID-19 accelerated the movement away from cash, + convenience of digital payment appeals to operators & consumers

- Card-based gambling presents opportunities for harm reduction (see Gainsbury & Blaszczynski 2020), e.g. limit setting tools, detection of risky activity

Concerns around digital payments:

- 'Pain of paying' and overspending on cards

- Many casino gamblers report control strategies involving cash ("Only take the money you want to lose" Rodda et al 2019)

Monetary format

What do we know about the effects of monetary format on gambling tendencies?

- Systematic scoping review of peer-reviewed & grey lit in Sept 2021: money OR monetary OR payment OR note acceptors OR bill acceptors OR cash OR credit, + gambling terms. 3,996 unique hits.

- Eligibility (c.f. 'real gamblers, real gambling' in Ladouceur et al 2017):

    1. experimental design: randomized + control condition, with a manipulation of monetary format, *not* jackpot size, RTP, win rate.

    2. uses a gambling scenario (stake, prize, chance), *not* neurocognitive tests

    3. measure of gambling involvement / severity e.g. PGSI

    4. reports gambling behaviour, subjective experience, or physiology

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6 expts manipulate **Salience of Money** (e.g. holding money in hand, exchange rates)

Evidence: mixed

No studies compared cash vs card / digital

12 of 23 expts compare the **Presence vs Absence of Money** (e.g. tokens, points)

Strength of evidence: +++

Relevance to policy: limited
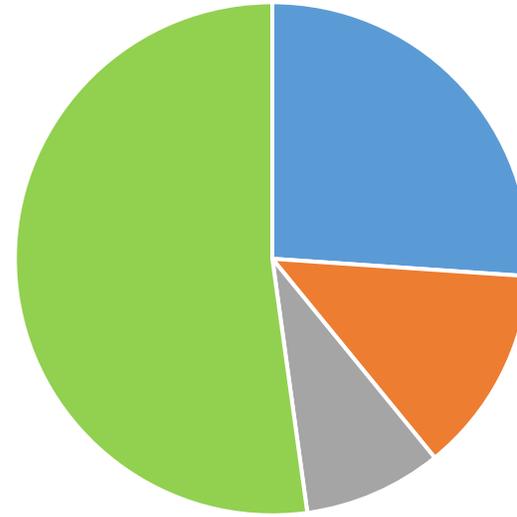
3 expts tested **RG tools** (e.g. bill acceptors)

Evidence: weak but manipulations were quite subtle

2 expts tested **Monetary Inducements**

Evidence: mixed

Highly relevant to promotional marketing

Palmer, Cringle, Clark, 2022 IGS

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Monetary format is not easy to study...

- Two experiments in experienced slot machine gamblers, using a modern EGM in a lab environment:
- Expt 1: cash payment vs voucher (n = 61)
- Expt 2: earned endowment vs windfall (n = 48)

A.

| Voucher | Cash |

B.

| Windfall | Earned |

LOW — PAIN OF PAYING — HIGH

Limbrick-Oldfield et al 2022 Addiction Res Theory

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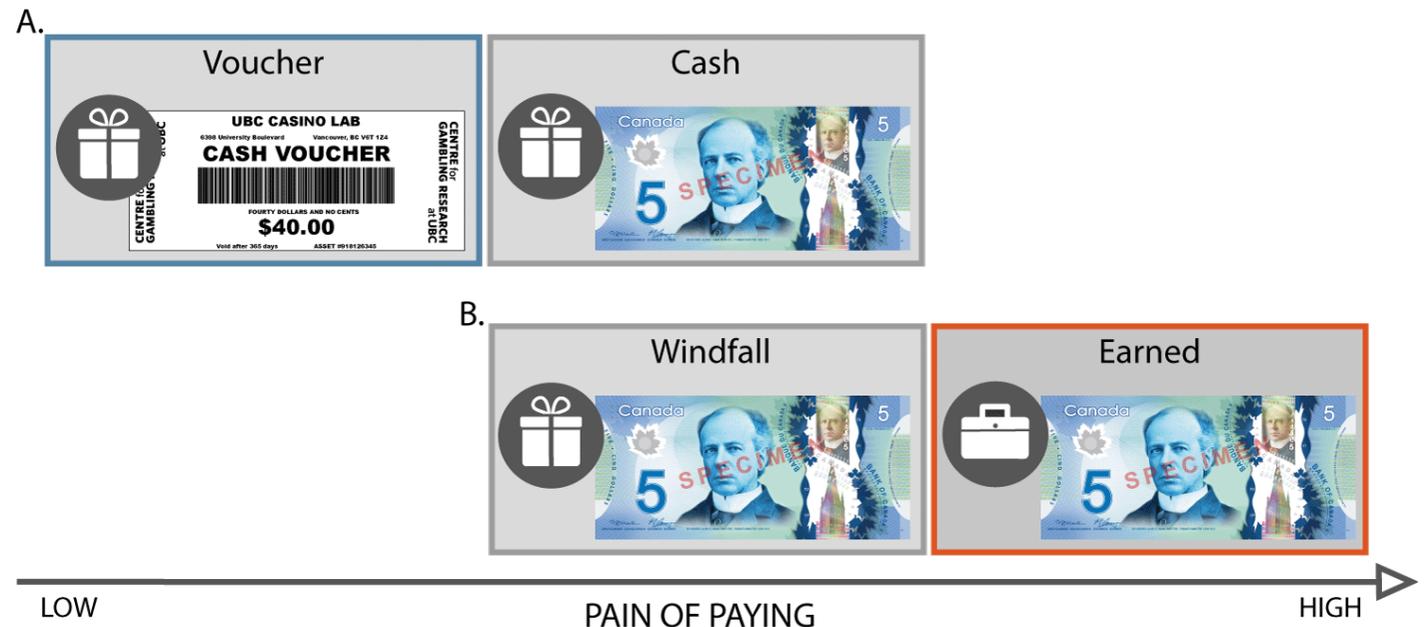
Pain of Paying study: no significant effects of payment modality

Expt 1	Cash (n = 30)	Voucher (n = 31)	
Average bet ($)	0.31	0.30	
Total bet ($)	52.8	54.4	
End balance ($)	26.2	14.5	p = .077
Total bet at 5 mins ($)	17.0	14.6	

Expt 2	Windfall (n = 28)	Earned (n = 20)	
Average bet ($)	0.40	0.40	
Total bet ($)	49.2	47.8	
End balance ($)	27.4	30.0	
Total bet at 5 mins ($)	18.4	12.6	

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Environments

- Social disadvantage and marginalization, in many forms, are risk factors for harmful gambling

- Online gambling is not a type of product; it's the same products being offered in a different environment

- Marketing landscape is fast moving (e.g. social media & personalized promotions)

Daily Mail (2016)

https://www.dailymail.co.uk/news/article-3437271/Number-13-unlucky-Residents-live-near-high-street-dubbed-Strip-eight-betting-shops-four-gambling-arcades-trying-block-13th-opening.html

Toronto lottery sales by zipcode SES
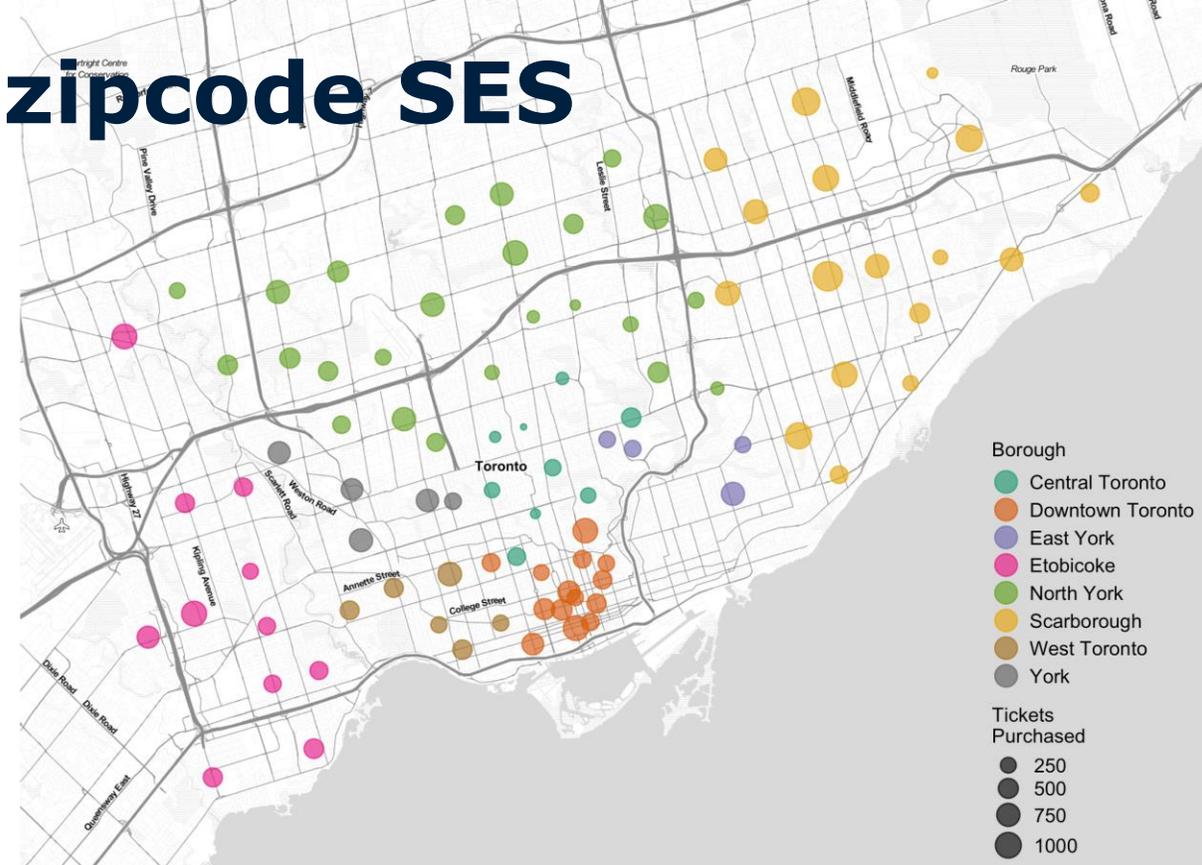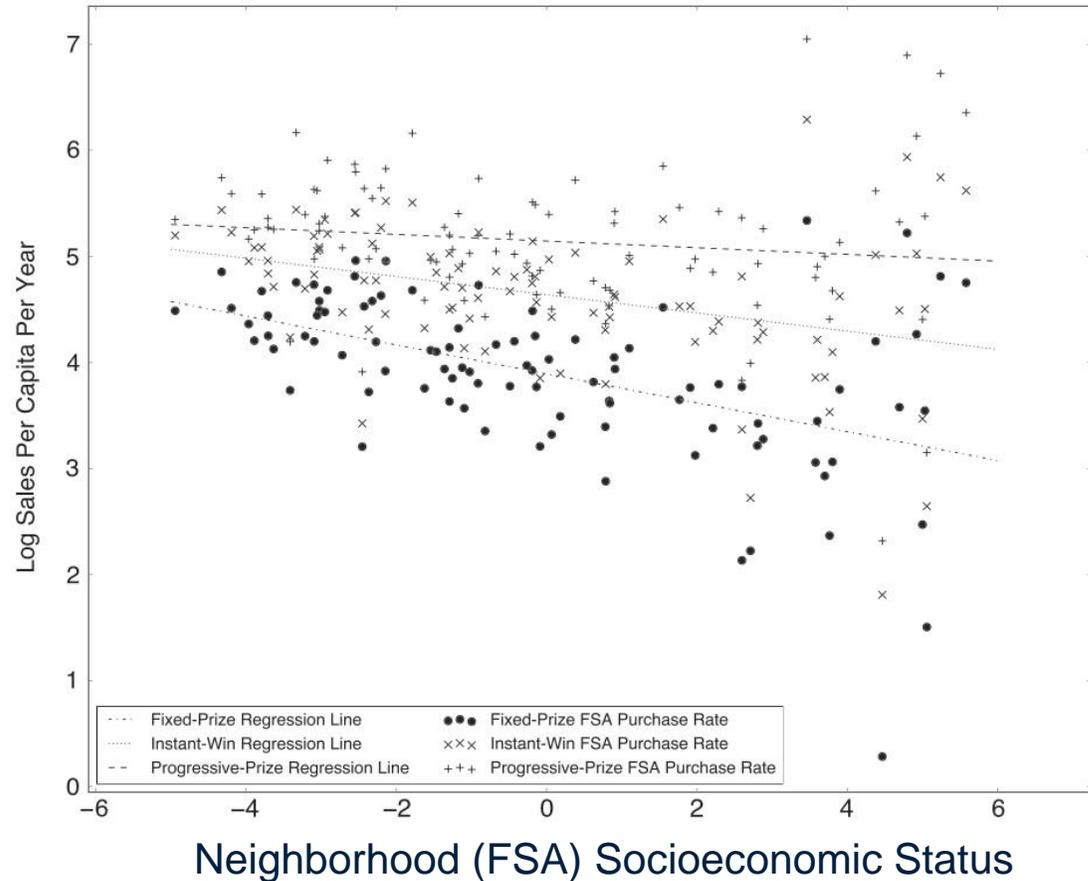
Fu, Monson & Otto 2020, 2021

Strongest association for Fixed Prize lotteries (e.g. Pick2, DailyKeno), weakest for Progressive Prize (e.g. Lotto649)

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Pareto effects in online gambling

- For many goods, the top 20% most active consumers of the product generate 80% of the sales (the law of the vital few, e.g. Tom et al 2014)

80% — Top 20% — **Standard Pareto**

20% — Top 20% — **Netflix (revenue)**

~60% — Top 20% — **Weekly Lottery**

90% — Top 20% — **eCasino**
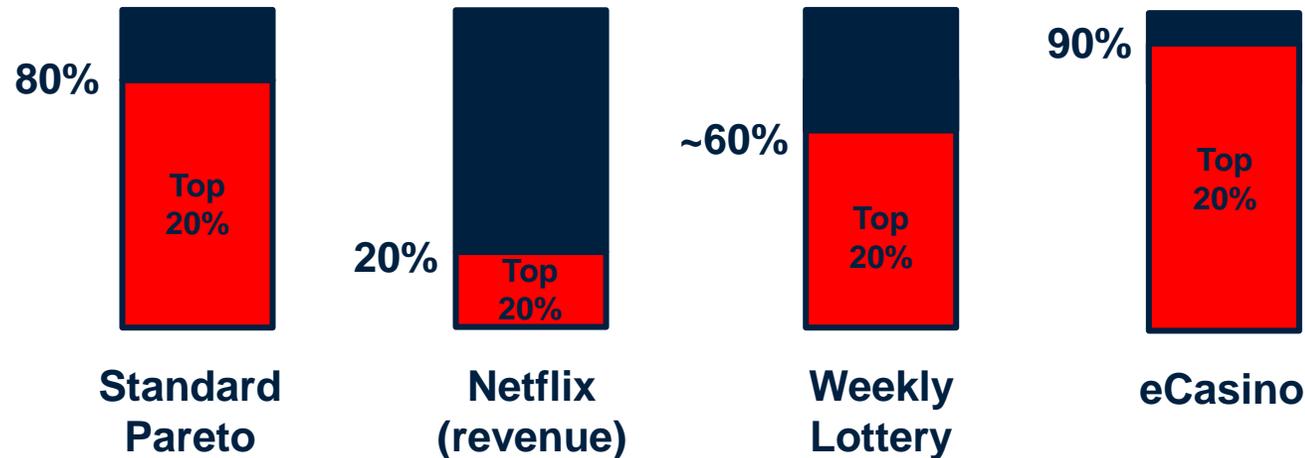
- Zendle et al (2020) for CS:GO loot box openings (1.5m from China), top 1% generate 26% sales ("whale-centric")

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Gambling Streams on Twitch

Slots streams – many issues!

Lack of age gating

Sponsorship contracts

Crypto casinos

Take-home messages

- Gambling harms arise through an interplay of factors at the level of the Person ('player'), gambling Product, and wider Environment

- Within this framework, gambling Products represent the point of contact between the person and the wider environment

- Gambling products can be broken down into a number of discrete features (ingredients). It remains unclear whether the harm / safety profile of any form of gambling is driven by certain features, or is the result of many features creating e.g. an immersive experience.

- Many recent examples of the interplay between products and environments, but we also need to better understand the other linkages (Person – Product, Person – Environment)