ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/305986831

Pokémon GO!—Pandemic or Prescription? The Public Health Perspective

Article · August 2016

CITATIONS
0

READS
148

4 authors, including:

Alain B Labrique
Johns Hopkins Bloomberg School of Public He…
157 PUBLICATIONS **2,022** CITATIONS
SEE PROFILE

Michelle Colder Carras
Johns Hopkins Bloomberg School of Public He…
23 PUBLICATIONS **715** CITATIONS
SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Project Video Gaming in a Hyperconnected World View project

Project JiVitA1 View project

All content following this page was uploaded by Michelle Colder Carras on 30 August 2016.

The user has requested enhancement of the downloaded file.

Search GHN

NOW

From the Johns Hopkins Bloomberg School of Public Health

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

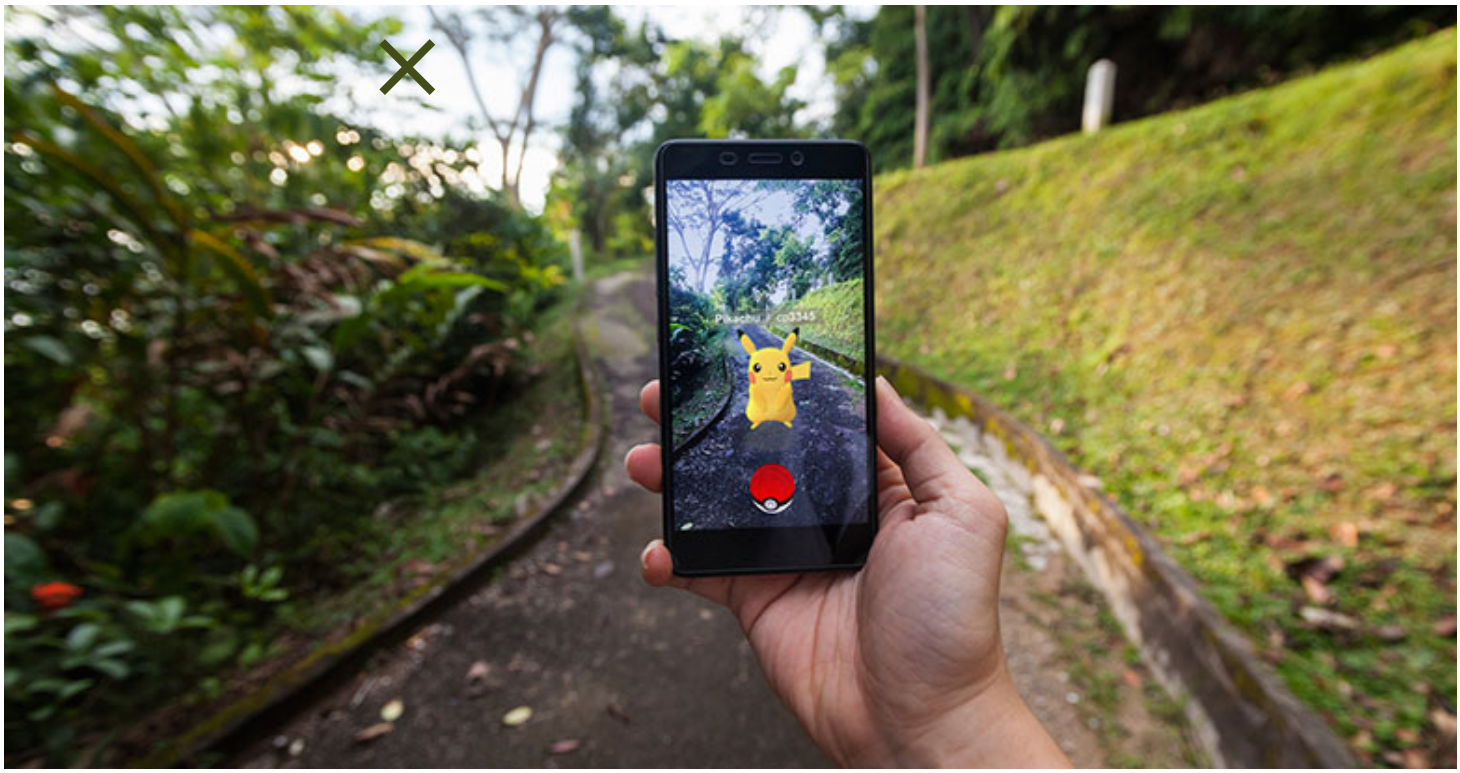
CONTACT US

Pokémon GO!—Pandemic or Prescription? The Public Health Perspective

SHARE

Aug 02, 2016 12:26:00 PM EDT

By The Johns Hopkins Pokemon Preparedness Team: Alain Labrique, Yorghos Carabas, Michelle Colder Carras, and Bruce Y. Lee



iStock Photo/KeongDaGreat

Niantic's new smartphone game has unleashed a Pokémon fever that is spreading around the globe faster than swine flu. Now, researchers at Johns Hopkins are scrambling to study how Zubats and Pikachus might be affecting populations—possibly helping to combat another ongoing public health crisis: the global obesity epidemic.

From med students to middle-school kids, tens of millions have suddenly taken to the streets, phone in hand, in search of elusive virtual beasts. The more you walk, the more likely you are to

Search GHN

NOW

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

CONTACT US

From the Johns Hopkins Bloomberg School of Public Health

As the obesity epidemic continues to grow and physical activity continues to decline worldwide, could chasing Pokémon be part of the solution? Each day in the US, only 1 in 3 children are physically active and less than 5% of adults get the recommended 30 minutes of physical activity. Over the past 5 years, hundreds of wearable technologies have emerged, but the jury is still out on whether these actually improve physical activity, especially among the sedentary. Public health studies have sought answers to these tough questions: Do wearables actually enhance physical activity? Can they replace expensive gym memberships or exercise equipment? Will people keep using them once the novelty wears off? Roughly 13 million Americans bought smart activity trackers in 2015, but 1/3 abandoned those New Year's resolutions within 6 months.

Maybe the secret sauce is not trying to be a healthy app, but instead focus on a game that gets people off the couch, into the real world, with inadvertent health effects. In 2006, Microsoft's Kinect and Nintendo's Wii game consoles were heralded by many as the solution to getting a nation of young gamers off their couches—but in this case, only as far as the carpet in front of the TV. In just a week, more people have downloaded and used Pokémon GO than have ever bought the Wii Fit game. Even major fitness giants such as Nike have tried, unsuccessfully, to capture users in NikeFuel "Missions," powered by a digitally-enhanced sneaker, only to dissolve most of their Digital Sports division 2 years after launch.

As a commercial digital game, Pokémon GO may be better at engaging users, especially currently sedentary ones, than health apps disguised as games. Pokémon GO not only builds on the appeal of a massively successful gaming franchise but also adds a hefty dose of 21st century tech. Kids and adults alike seem to be having no problem walking for city blocks when it doesn't seem like exercise —like hiding broccoli in a smoothie. The best high-def video games may be no match for the hybrid game + real world mix when it comes to propelling users out of the house. Pokémon GO's augmented reality superimposes Charizards and Squirtles on once-familiar buildings and sidewalks and turns churches and parking lots into state-of-the art Pokémon Gyms, allowing this exciting virtual environment to attract users out into the real world. On the other hand, embracing fast-food chains as Pokémon Gym sponsors could negate gains as players are drawn to the nearest McDonalds to fuel more than just their virtual menagerie.

It seems clear that the game could be very useful in prevention and health promotion in a variety of ways.

Search GHN

NOW

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

CONTACT US

From the Johns Hopkins Bloomberg School of Public Health

never noticed, thanks to the lure of another wild Pokémon. Active games like Dance, Dance Revolution! are based on high-energy, frenetic jumps and twists, but so far haven't shown evidence they reduce body mass index (BMI). The shininess of an exergame quickly wears off. But GO is a commercial franchise, likely to build momentum and keep players hooked well beyond the proverbial chasm of long-term adoption. Savvy physical therapists have already incorporated GO into therapy for hospitalized children. Most public health agencies trying their hand at digital health can hardly dream of competing on this level.

+ Promoting outdoor time

Many parents express surprise at screen-bound preteens' sudden desire to head outdoors since wild Pokémon appeared in our neighborhoods. Getting kids out in the open has clear health advantages, like increased Vitamin D levels (which helps strengthen bones), strengthened immune systems, lower stress levels (Head Start Body Start), and reduced ADHD symptoms (NIH). Following specific routes and checking in at points of interest along the way could encourage people to explore their communities, allowing them to rediscover unappreciated real-world landmarks. Niantic could even partner with state and national park systems to host 'Pokémon days' which bring people together to enjoy both the virtual and real world.

iStock Photo/adamkaz

Search GHN

NOW

From the Johns Hopkins Bloomberg School of Public Health

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

CONTACT US

interactions—a strong predictor of both mental and physical health. This interaction could be useful, especially for those who otherwise have difficulty in social situations; some users are already reporting improvements in depression and anxiety. In fact, Niantic could capitalize on this through new features that could encourage social interactions—perhaps by increasing the chances of rare Pokémon sightings or speeding progress when traveling with a group.

Of course, as public health professionals, we are also wary of a few potential areas of concern. As concerns about potential problems mount, we question whether guidelines for use might be needed, such as those proposed alongside the game's release in Japan.

- Injuries while catching 'em all

Pokemon's intro screen warns players to stay alert, but media reports are flooding in of people injured while focusing on Bulbasaur and not the busy traffic intersection. We wouldn't be surprised to see hospitals adopting a new injury billing code in the near future, or officers writing tickets for driving while Pokémon hunting. Safety features which completely disable interaction when in a moving vehicle may be warranted in future releases.

- Pokescams and exploitation

GO's game mechanics have already been used to rob players of their phones and money by luring unwitting players to attractive 'virtual' locations. Reports of malware, piggybacked on illegally-downloaded copies have emerged, potentially able to intercept a user's communications and locations. And, people may be less vigilant than usual while playing—venturing into areas they might not otherwise, alone or during times of day where they might be at increased risk of crime. Some have even warned of the risk of racial bias affecting how police or the neighborhood watch might misinterpret game-inspired wandering.

- Pikachu dependence

As noted with other highly engaging games, some users might find GO interfering with real life, causing relationship conflicts, low bank balances, and possibly neglect of work, school or sleep--problems common to behaviors that spiral out of control. It's the very elements of GO and other games that are so fascinating and engaging that also make them potentially problematic. Attention to basic theories of behavioral reinforcement is integral to game design, and newer free-to-play games (like GO) use the enormous amounts of data they collect to develop analytics. These analytics are often used to identify and exploit "social whales"—those 0.15% of players who account for 1/2 of the in-app purchases, creating an ethical embarrassment. To offset this

Search GHN

NOW

From the Johns Hopkins Bloomberg School of Public Health

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

CONTACT US

There is no doubt that we, in the health community, have a lot to learn from the Pokemon playbook — whether it's the way GO captures and motivates players, or the social element of a shared gaming experience. Alternatively, this is an opportunity for the health community to identify existing commercial games with the potential to have real world health impacts.

Collecting information about benefits and risks is important to public health scientists the same way monitoring use and demographic data is critical to a game's marketing analysts (and capturing Pokémon is for 30 million Pokémon GO users). The FDA is joining other health agencies worldwide to pave the way for apps to be allowed to make health claims, but this will require plenty of evidence. If Pokémon GO or other games can be used to prevent obesity or improve social anxiety and depression, we'll need evidence to encourage their use as "digiceuticals."

Public health and clinical investigators can design the studies that will figure out if a future prescription should read, "Capture 60 Pokémon and call me next month." But studies cost money, and the time it takes to get a study done, from conception to funding to published guidelines, can take a decade or more, by which time we'll likely be talking about Pokémon GONE. Intentional collaborations between the gaming industry, gamers and global health could shrink this timespan dramatically.

It's not clear yet what impact (or duration) this Pokémon epidemic will have in terms of societal benefits and consequences. Certainly, Pokémon GO is challenging public health scientists to rethink how to leverage mobile technologies and video games to engage a clearly willing gaming public to combat the looming and very-real epidemics of childhood obesity, depression and other noncommunicable diseases. The staggering $190 billion spent currently on obesity, and the projected costs of over $1 trillion from cardiovascular diseases by 2030 demands that we identify new solutions. Beyond healthy bodies, the ability of wild Pikachus to unite crowds of strangers may be just the prescription-strength app for the socially tense and politically divided times we live in.

Alain Labrique, PhD, MHS, MS, is an associate professor in the Department of International Health at JHSPH and the director of the JHU Global mHealth Initiative, a University-wide Center of Excellence in digital health research. Yorghos Carabas is a marketing and communications specialist and creative designer at the Johns Hopkins University Global mHealth Initiative. Michelle Colder Carras is a postdoctoral research fellow in the Department of Mental Health at the Johns Hopkins Bloomberg School of Public Health who studies media and mental health. Bruce Y. Lee, MD, MBA, is an associate professor of International Health at the Johns Hopkins Bloomberg

Search GHN

NOW

From the Johns Hopkins Bloomberg School of Public Health

Join the thousands of subscribers who rely on Global Health NOW summaries and exclusive articles for the latest public health news. Sign up for our free weekday enewsletter, and please share the link with friends and colleagues: http://www.globalhealthnow.org/subscribe.html

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

CONTACT US

Keywords: *exercise*, *ghn exclusive*, *global health*, *injuries*, *obesity*, *tech & innovation*

Comments:

Claudio Nigg

August 11, 2016 08:52:08 PM

Are 18 years old or older and - Do you play Pokémon Go? We are seeking volunteers to take part in a research study on Pokémon Go and physical activity. The best part: You can participate from anywhere you can access the internet. So please follow this link https://www.surveymonkey.com/r/PGosurvey to find out more details if you are: · Over 18 years old AND · You play Pokémon Go. Note: The survey closes on August 31, 2016. Thank you for your time, Claudio Nigg

---

Steph

August 11, 2016 01:34:53 AM

This is so interesting! I am studying my MPH and as part of my studies I am required to come up with a study protocol based on a public health issue. Two weeks ago I decided to go with the study question: Does playing Pokemon Go increase fitness? (or something along those lines). My challenge is to come up with a feasible observational study for this exact question. As these games are so new, is it worth health professionals potentially utilising such apps for health promotion for non-communicable disease prevention if they actually work? Or will it be a big flop?

Christopher

August 9, 2016 07:30:20 PM

Search GHN

NOW

From the Johns Hopkins Bloomberg School of Public Health

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

CONTACT US

Random Reader

August 8, 2016 11:05:56 PM

In the most recent update to Pokemon Go (released Aug. 8, 2016) there is now a pop-up message on the game warning the user not to play while driving if it detects you moving at high speed. You must confirm you are a passenger to be able to play.

Cathy

August 8, 2016 11:01:36 AM

My best friend and I, both 36 year old professional women, agree that Pokemon Go has caused us to exercise more than our $150 Fitbits ever did. According to the game I've clocked in 44 kilometers while playing in the last month, and according to Pacer it's twice that amount since the game's pedometer (which uses GPS to estimate distance, not steps) is not that accurate.

Judy

August 3, 2016 08:35:27 PM

Very informative article. Thank you for your time and effort. Two parents, in the suburbs near the Phoenix area, left their two year old home alone to wander in parks near their neighborhood, playing Pokemon Go. Please keep reminding the masses to play responsibly!

Post a comment:

Name:

E-Mail:

Your Comment:

Search GHN

NOW

From the Johns Hopkins Bloomberg School of Public Health

ABOUT

NEWS

Submit

SUBSCRIBE

ARCHIVE

More Special Topics CONTACT US

Climate Change

Ebola

GHN Exclusive

HIV/AIDS

Maternal Health

Nutrition

Syria

Water

View All Topics

Search GHN

NOW

From the Johns Hopkins Bloomberg School of Public Health

ABOUT

NEWS

SUBSCRIBE

ARCHIVE

CONTACT US