

# Internet Functionalities and Access : Threshold to Treatment

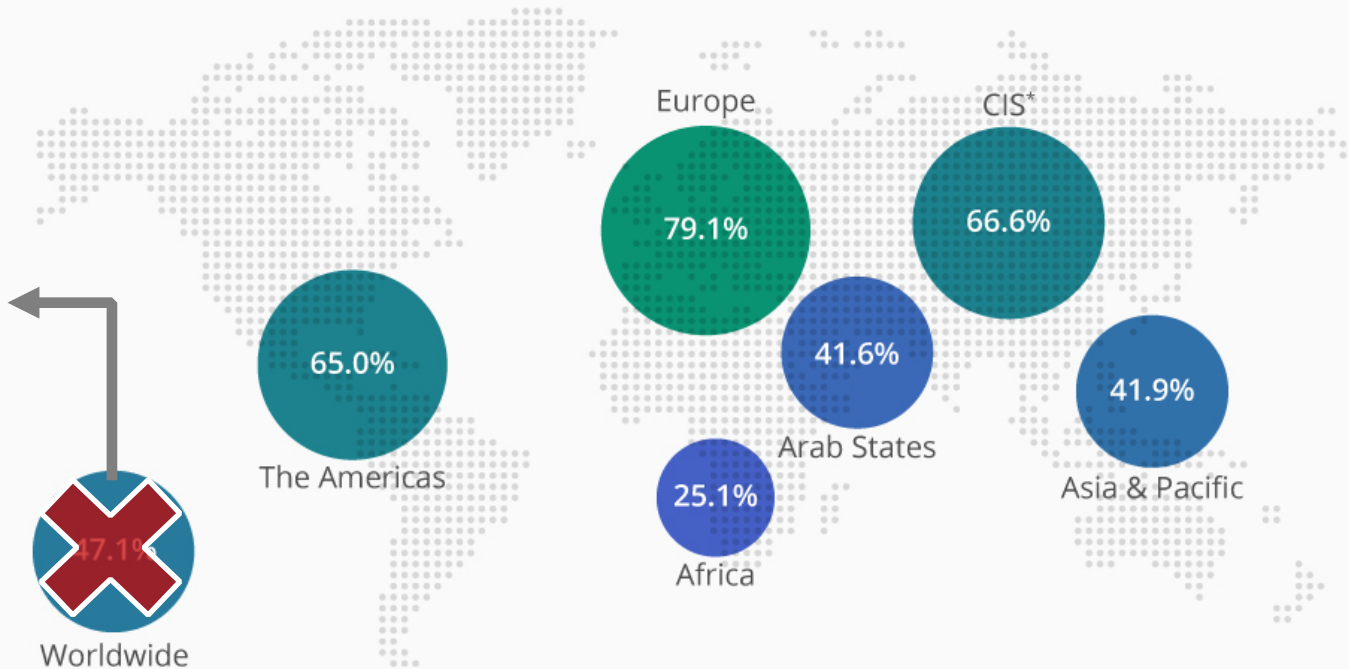
The Asian Conference on Psychology & the Behavioral Sciences 2017  
Kobe - Japan

Gerard Calzada

# Internet usage

Estimated number of internet users per 100 inhabitants in 2016

**49,2%**  
March 2017



@StatistaCharts

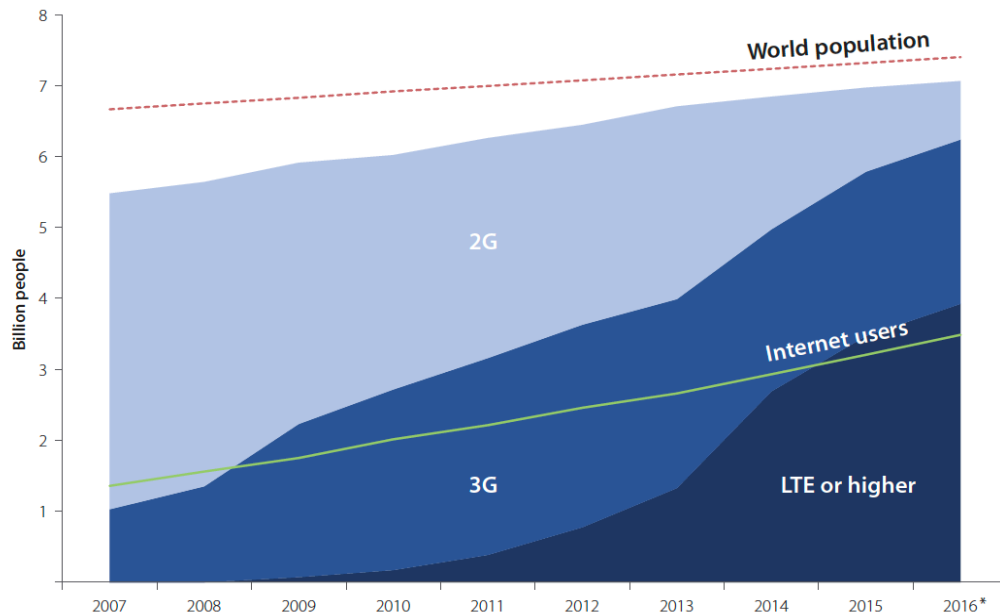
\* Commonwealth of Independent States

Source: International Telecommunication Union

statista

# Internet usage

## Mobile network coverage and evolving technologies



Source: ITU.

Note: \* Estimates. Mobile network coverage refers to the population that is covered by a mobile network.

Eysenbach, G., & Köhler, C. (2003). What is the prevalence of health-related searches on the World Wide Web? Qualitative and quantitative analysis of search engine queries on the Internet. Proceedings of the AMIA Symposium 2003:225-229.

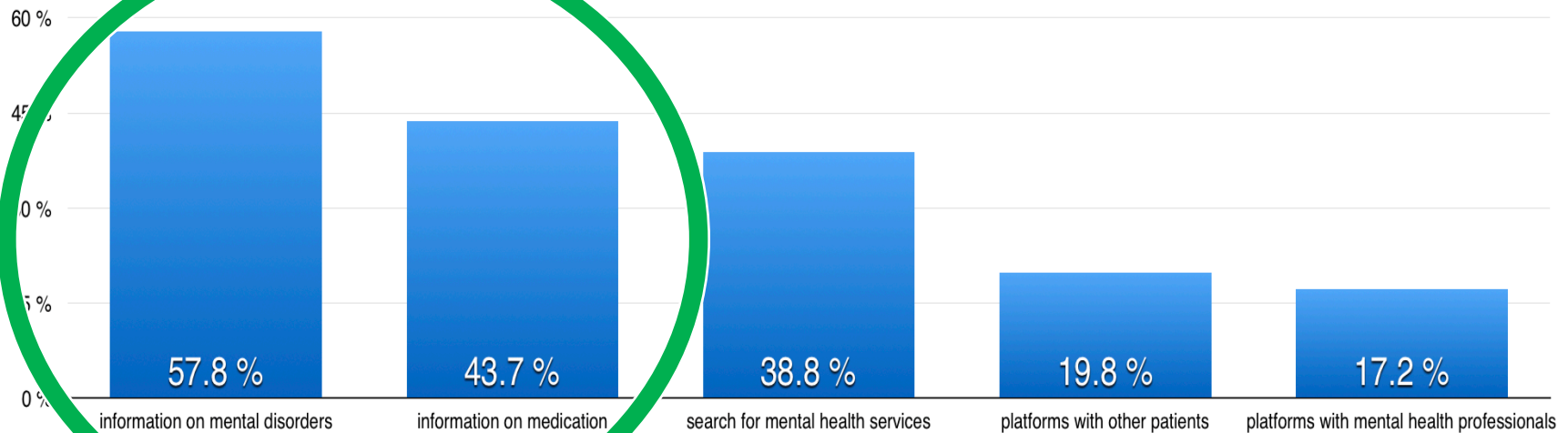
95% of the global population live in a mobile-cellular network's area.

Health-related information

4.5% of all searches

# Mental health Internet usage

- Psychiatric disorders do influence the way the Internet is used
- Research type :

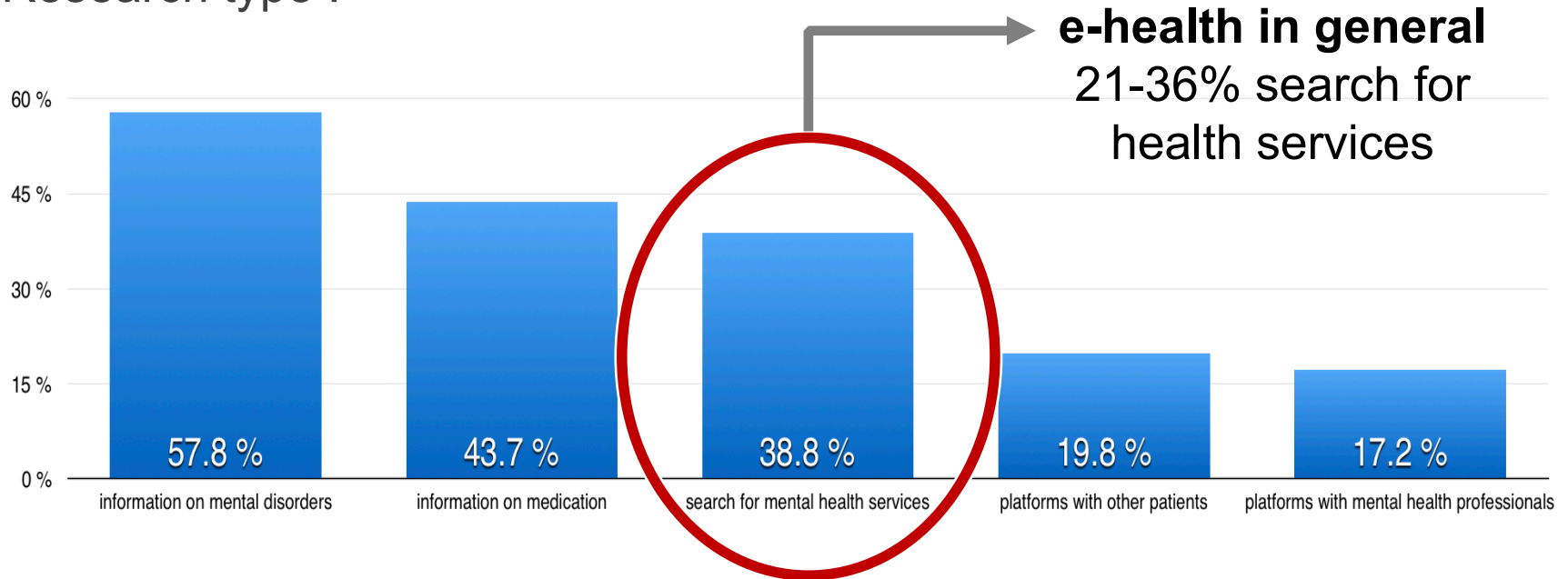


Fox S, Fallows D. Internet Health Resources. Health Services Research. 2003; 38(2): 421-430.   
Brunault P, et al. Différences d'accès à Internet et de recherche d'information en ligne selon le trouble psychiatrique. Rev Epidemiol Sante Publique (2017), <http://dx.doi.org/10.1016/j.respe.2016.11.001>   
Eysenbach G, Powell J, Kuss O, Sa ER. Empirical studies assessing the quality of health information for consumers on the world wide web: a systematic review. JAMA 2002; 287: 2691-700.



# Mental health Internet usage

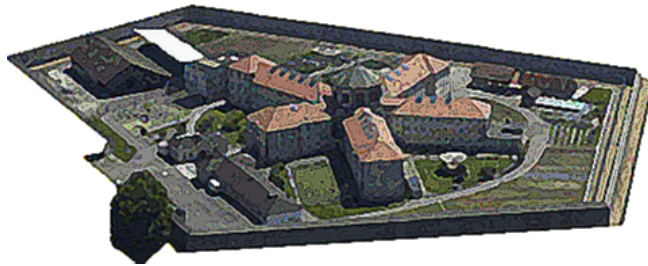
- Psychiatric disorders do influence the way the Internet is used
- Research type :



Anderson JG. Consumers of e-health. Patterns of use and barriers. Soc Sci Comput Rev 2004; 22: 242-8.

# Stigma and Internet use

- The Internet is the first step for obtaining information or initiate contact with a physician.
- Mental health care facilities are also stigmatized
  - deviation heterotopias (Foucault):



*places in which people differing from the norms were placed*

- WHO invite to take measures to reduce stigmatization and discrimination

Foucault, M. (2001). Dits et écrits 1984. Des espaces autres, (360), 752-762.

Kennedy, R., Hegerl, U., Bussfeld, P., et al. (2001). Conference report. Psychiatry via the Internet: benefits, risks, and perspectives. Presented the First International Symposium on the Internet and Psychiatry, Munich, Germany. Available: [www.medscape.com/viewarticle/414643](http://www.medscape.com/viewarticle/414643) print.

Europe, W. H. O. (2008, June). European Pact for mental health and Well-being. In EU Highlevel conference "Together for mental health and wellbeing": Brussels.

Stuart H. Fighting stigma and discrimination is fighting for mental health. Can Pub Policy 2005;31.

# Stigma conséquences

## ↓ life quality



Decreased self-esteem  
Stress  
Isolation  
Marginalization

## ↓ chances of healing



Difficulty to get care  
Treatment cessation  
Lack of information

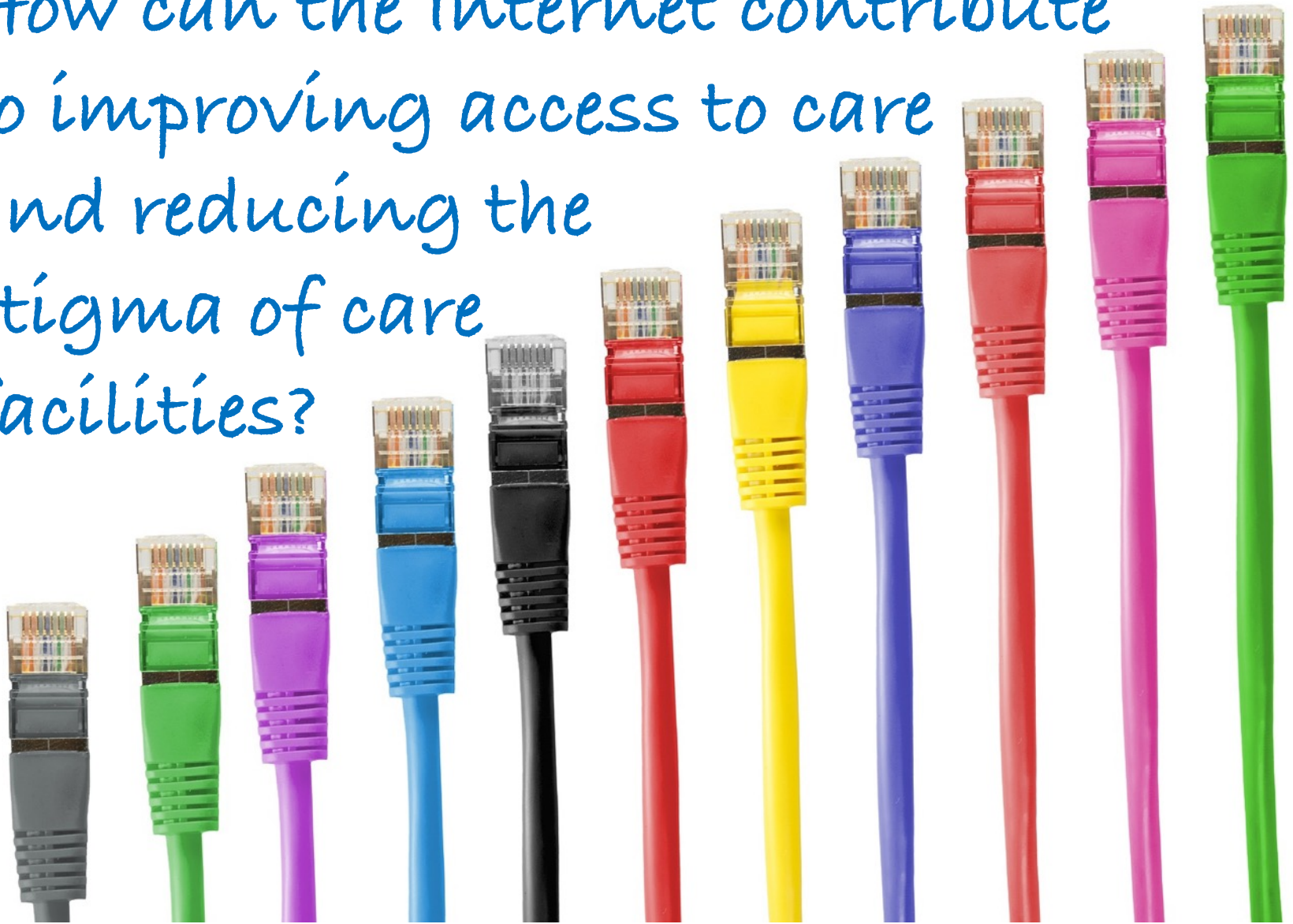
## ↓ social integration



Problems of social adaptation  
Housing problems  
Exclusion from the professional world

Stuart H. Fighting stigma and discrimination is fighting for mental health. Can Pub Policy 2005;31.

How can the Internet contribute  
to improving access to care  
and reducing the  
stigma of care  
facilities?



# Collaborative web mapping in health



✓

See photos

See outside

Caap Grand-Pré - Service D'addictologie - Hôpitaux Universitaires De Genève

Website

Directions ✓

5.0 ★★★★★ 1 Google review

Medical center in Geneva, Switzerland

**Address:** Rue du Grand-Pré 70C, 1202 Genève, Switzerland

**Hours:**

|               |                   |
|---------------|-------------------|
| <b>Monday</b> | <b>8:30AM–6PM</b> |
| Tuesday       | 8:30AM–6PM        |
| Wednesday     | 8:30AM–6PM        |
| Thursday      | 8:30AM–6PM        |
| Friday        | 8:30AM–6PM        |
| Saturday      | Closed            |
| Sunday        | Closed            |

[Suggest an edit](#)

**Phone:** +41 22 372 57 50

[Suggest an edit](#)

**Reviews**

1 Google review

Write a review

Add a photo

✓

# Web mapping and access to care

- Influence the perception of the place
- Improve the customer experience
- Instant 24 hour access to health center information
- Easiness to retrieve relevant information



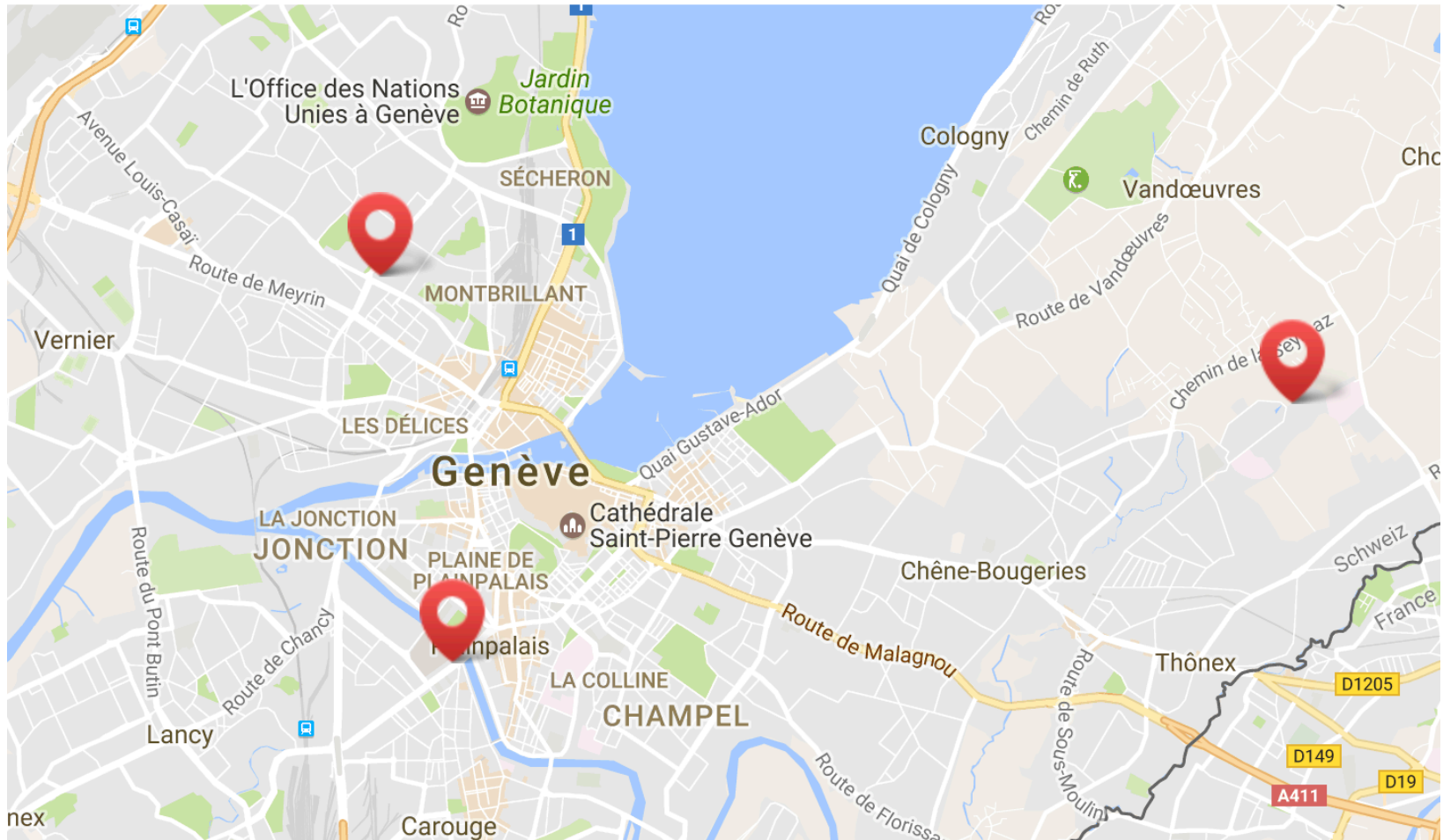
# Web mapping and destigmatizing action

- Shows places as they are
- Breaking the asylum vision
- Showing beauty → reassurance

Review: The impact of art, design and environment in mental healthcare: a systematic review of the literature. Norma Daykin, Ellie Byrne, Tony Soteriou and Susan O'Connor. The Journal of the Royal Society for the Promotion of Health 2008 128: 85. DOI: 10.1177/1466424007087806. The online version of this article can be found at: <http://rsh.sagepub.com/content/128/2/85>

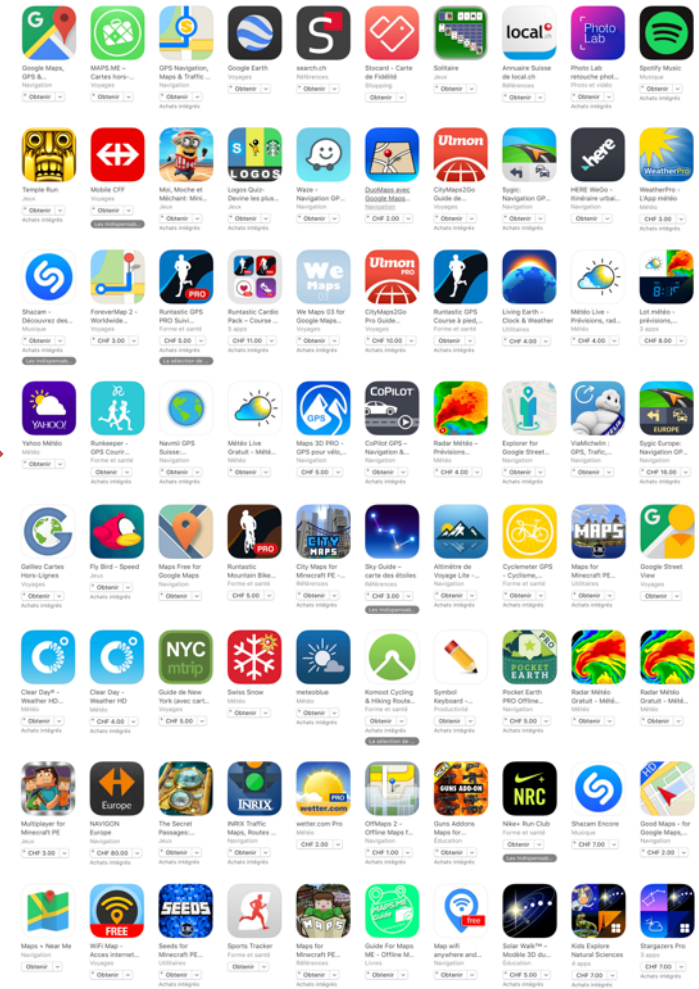
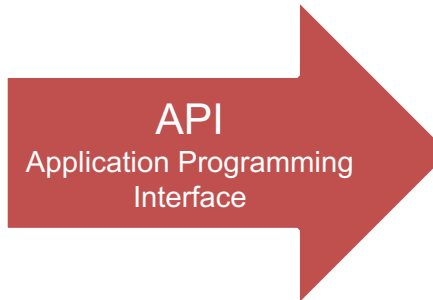
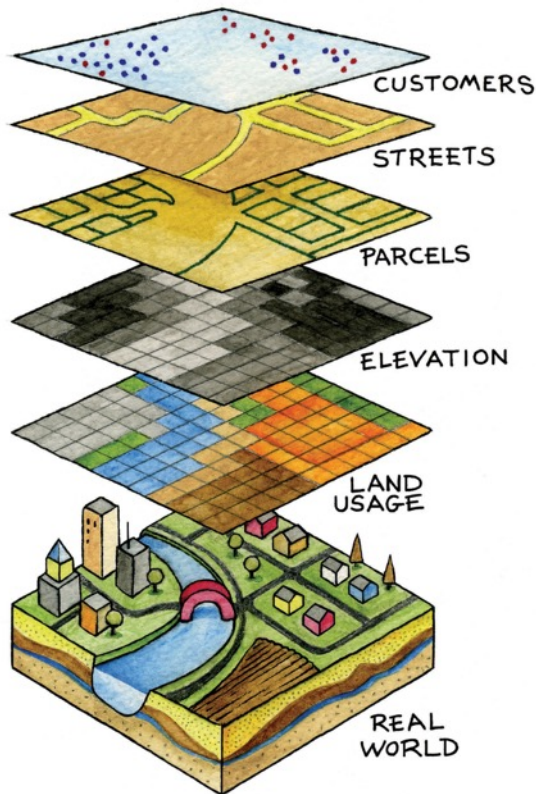


# The experience at the Geneva university hospitals



# Choice of map systems

## GIS Geographic Information Systems



# Choice of map systems

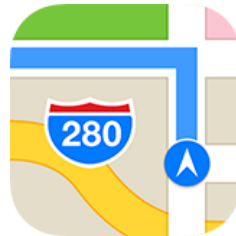


**OpenStreetMap**

 **Bing maps**

**Google**  
Maps

**Yandex**



Apple Maps



**m<sup>q</sup>**  
**mapquest**

  
**wikimapia**

**here**

# Choice of map systems



79.000.000  
UNIQUE USERS / MONTH



Google My Business



Insights

Insights for your business, last 30 days

2.67K

14%↓

Searches

4.88K

24%↓

Views

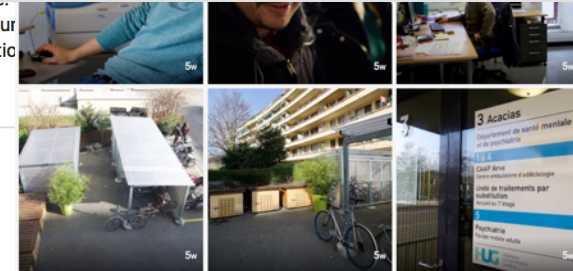
1.85K

61%↑

Actions

[View Insights](#)

Le premier des points comme spécialiste dans le traitement des dépendances regroupe d'importantes  
réelle empathie et traitement des plus avant gardiste tel que prescription d'héroïne qui apporte un  
conditions de vie des usagers et parfois pour certains leur sauve la vie sans oublier la contribution  
criminalité



Nielsen (2014, December 18). Tops of 2014: Digital. Retrieved March 20, 2017, from <http://www.nielsen.com/us/en/insights/news/2014/tops-of-2014-digital.html>



# Choice of map systems



**OpenStreetMap**

Clinique

i

Tous les champs

Nom

CAAP Grand-Pré - Service addictologie - Hôpitaux ...

Adresse

Rue du Grand-Pré

70c

1202

Genève

Heures

Inconnu

Description

Traitement ambulatoire de personnes concernées par l'addiction à l'alcool, au tabac, au cannabis, à la cocaïne, aux médicaments, à l'ecstasy, aux amphétamines, aux

Courrier électronique

Service.Addictologie@hcuge.ch

Téléphone

+41 22 372 57 50

Site Web

http://addictohug.ch/caap-grand-pre/

Accès en fauteuil roulant

☒ yes

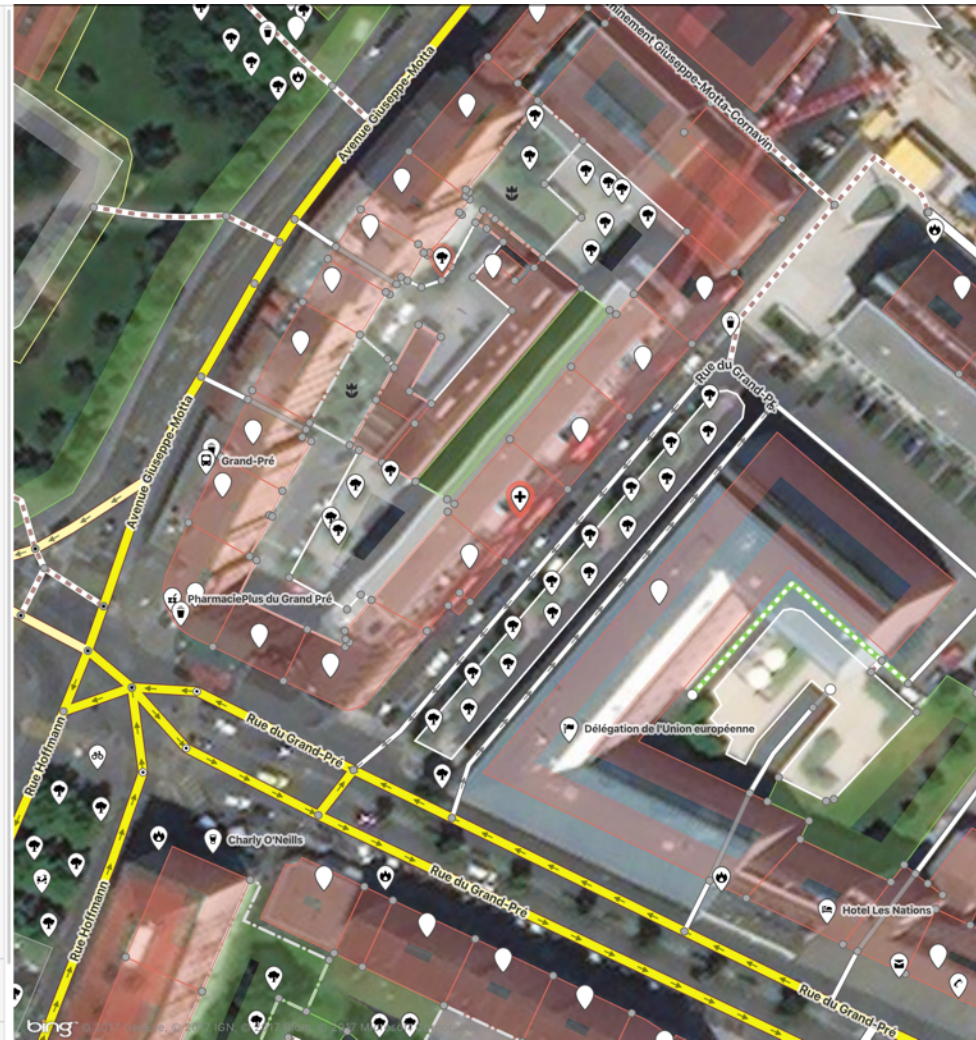
☐ limited

☐ no

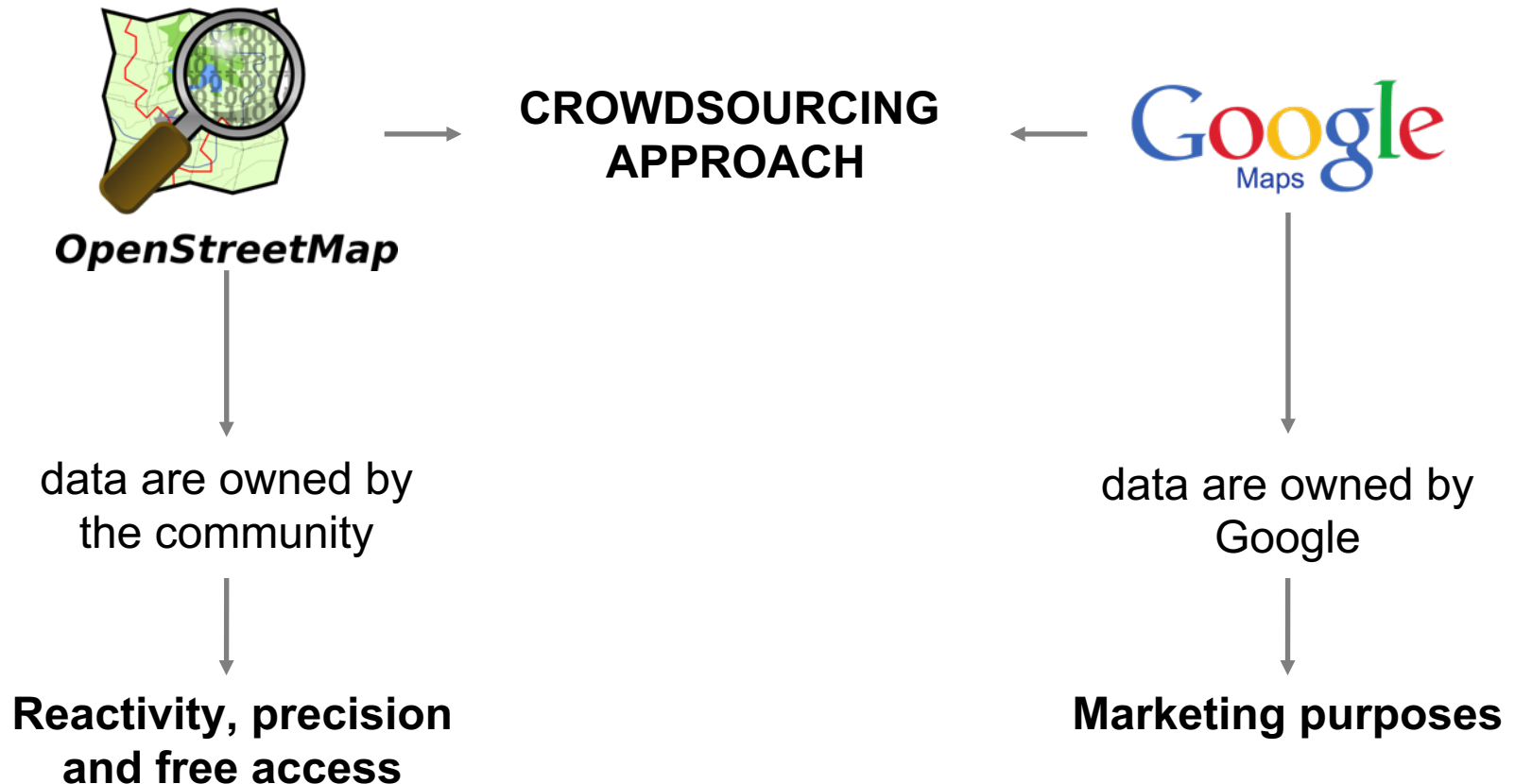
Ajouter champ:

Altitude, Fax, À corriger...

Tous les tags (13)



# Choice of map systems



Buczowski, A. (2016, January 26). Why would you use OpenStreetMap if there is Google Maps? Retrieved March 20, 2017, from <http://geoawesomeness.com/why-would-you-use-openstreetmap-if-there-is-google-maps/>

# Health specific map systems



healthsites.io



YOU ARE NOT SIGNED IN

[sign in](#)

Browse the map, [search](#) or use [geolocate me](#) to view healthsites close to your location.

**CAAP Grand-Pré - Service d'addictologie - Hôpitaux Universitaires de Genève**  
tertiary level including University hospital

**last update: 18 February 2017 19:47:21, by @addictologieHUG**  
82.35% Complete

**Rue du Grand-Pré 70C, 1202 Genève**  
*W3W : gasping.informs.handwriting*  
lat: 46.216226001746776, long: 6.1319321393966675

**+41-223725750**

**Monday to Friday : 08:30-18:00**

[healthsites.io](#)

**scope of service**

- specialized care
- ancillary services
  - ..please define ancillary services activities
- medicine and medical specialties

healthsite  
place  
what3words

Service d'addictologie

[search](#)

CAAP Arve - Service d'addictologie - Hôpitaux Universitaires de Genève  
CAAP Grand-Pré - Service d'addictologie - Hôpitaux Universitaires de Genève  
UTHA - Unité de Transition Hospitalière en Addictologie - Service d'addictologie - Hôpitaux Universitaires de Genève



Hôpitaux  
Universitaires  
Genève

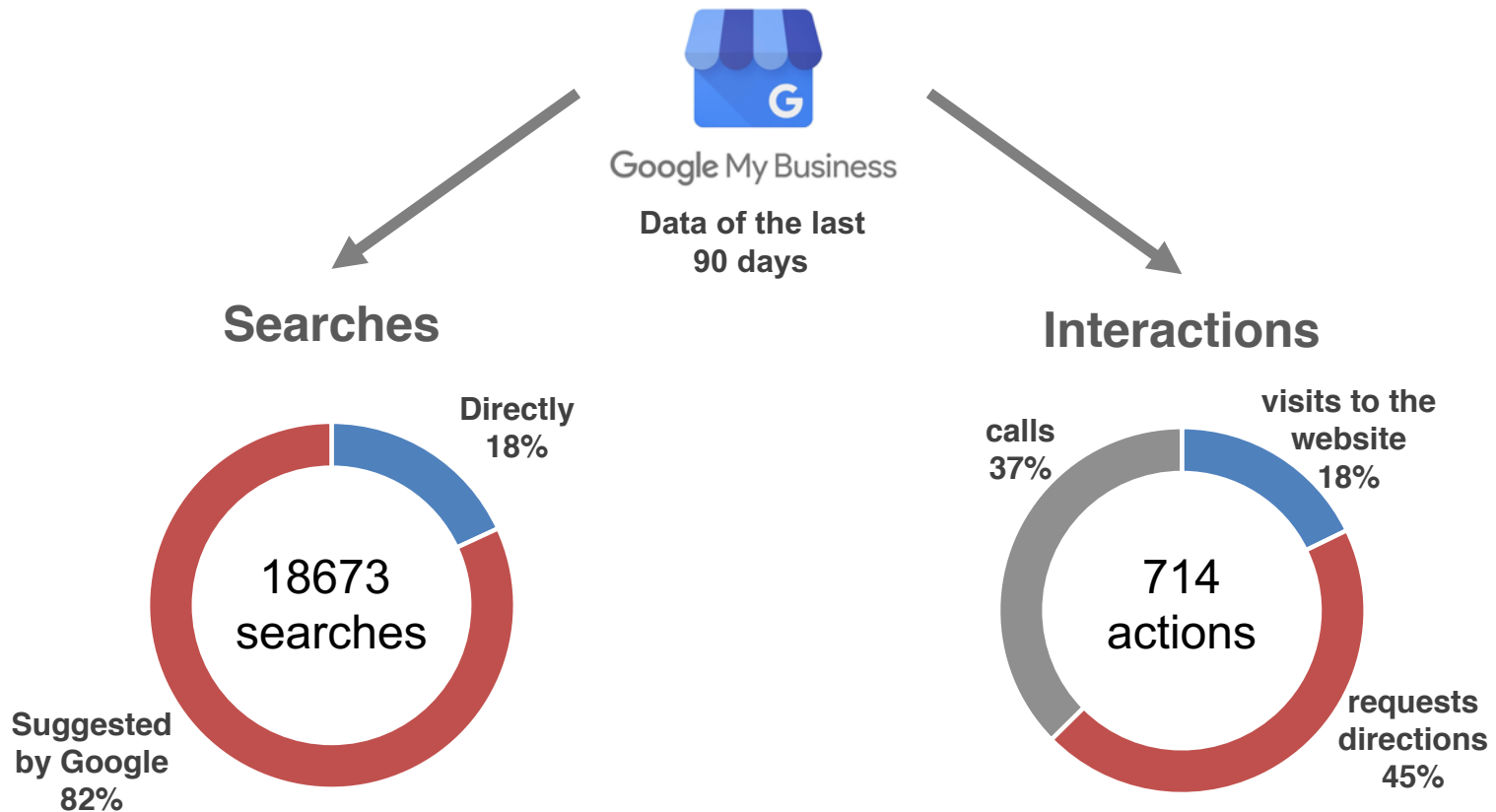


UNIVERSITÉ  
DE GENÈVE

FACULTÉ DE MÉDECINE



# What was the impact of adding our health centers to these maps services?



# Photo Impact and interactivity



**“ Businesses with photos receive 42% more requests for driving directions to their location from users on Google, and 35% more clicks through to their websites than businesses that don't have photos “**

***support.google.com***

Google. (n.d.). Make your business listing awesome. Retrieved March 20, 2017, from <https://support.google.com/business/answer/6335804>

# Photo Impact and views on Google Maps and Google Search

| GRAND-PRÉ         |                |          |                   |                 |          | ARVE              |                |         |  |                 |        |
|-------------------|----------------|----------|-------------------|-----------------|----------|-------------------|----------------|---------|--|-----------------|--------|
| Google Maps       |                |          | Google Search     |                 |          | Google Maps       |                |         | Google Search                              |                 |        |
| Before            | After          | p-val    | Before            | After           | p-val    | Before            | After          | p-val   | Before                                     | After           | p-val  |
| 53.9<br>(27.4)    | 73.2<br>(28.8) | 0.003807 | 92.8<br>(44.1)    | 121.4<br>(48.6) | 0.009277 | 66.4<br>(35.5)    | 92.0<br>(47.8) | 0.01278 | 93.3<br>(43.9)                             | 103.5<br>(50.4) | 0.3517 |
| Increase of 35.8% |                |          | Increase of 30.8% |                 |          | Increase of 38.5% |                |         | Increase but not statistically significant |                 |        |

Mean (s.d.)

# Call Impact

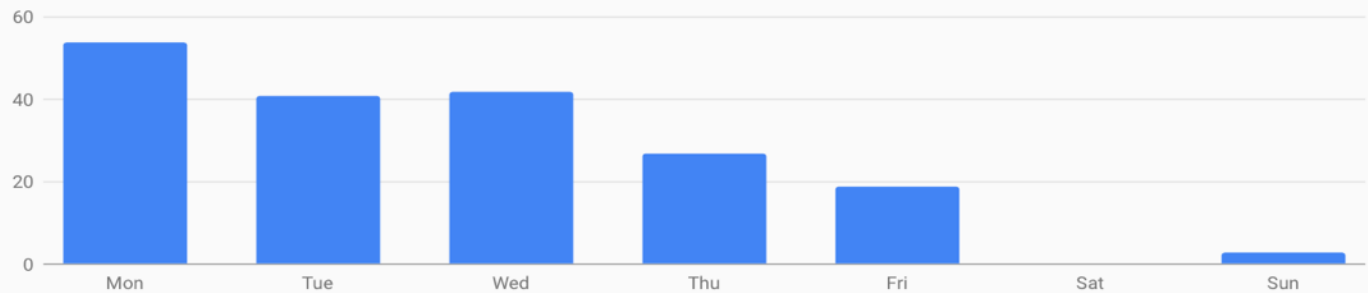
In the past 3 months, 267 phone calls made from Google

## Phone calls

When and how many times customers call your business

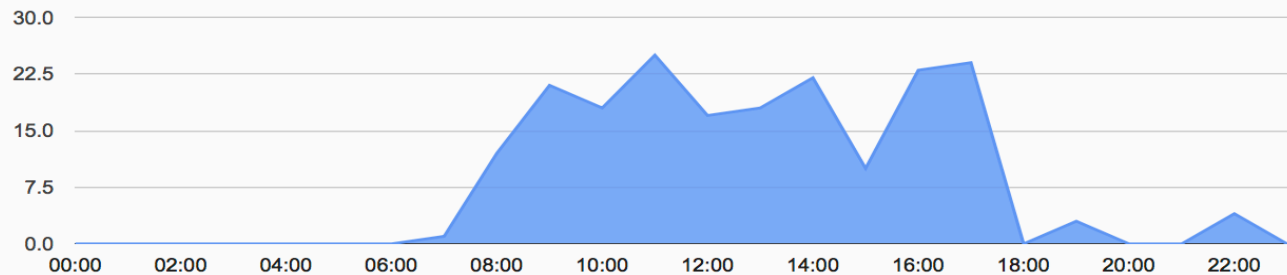
Day of week ▾ Last 12 weeks ▾

Total calls 186



Time of day ▾ Last 90 days ▾

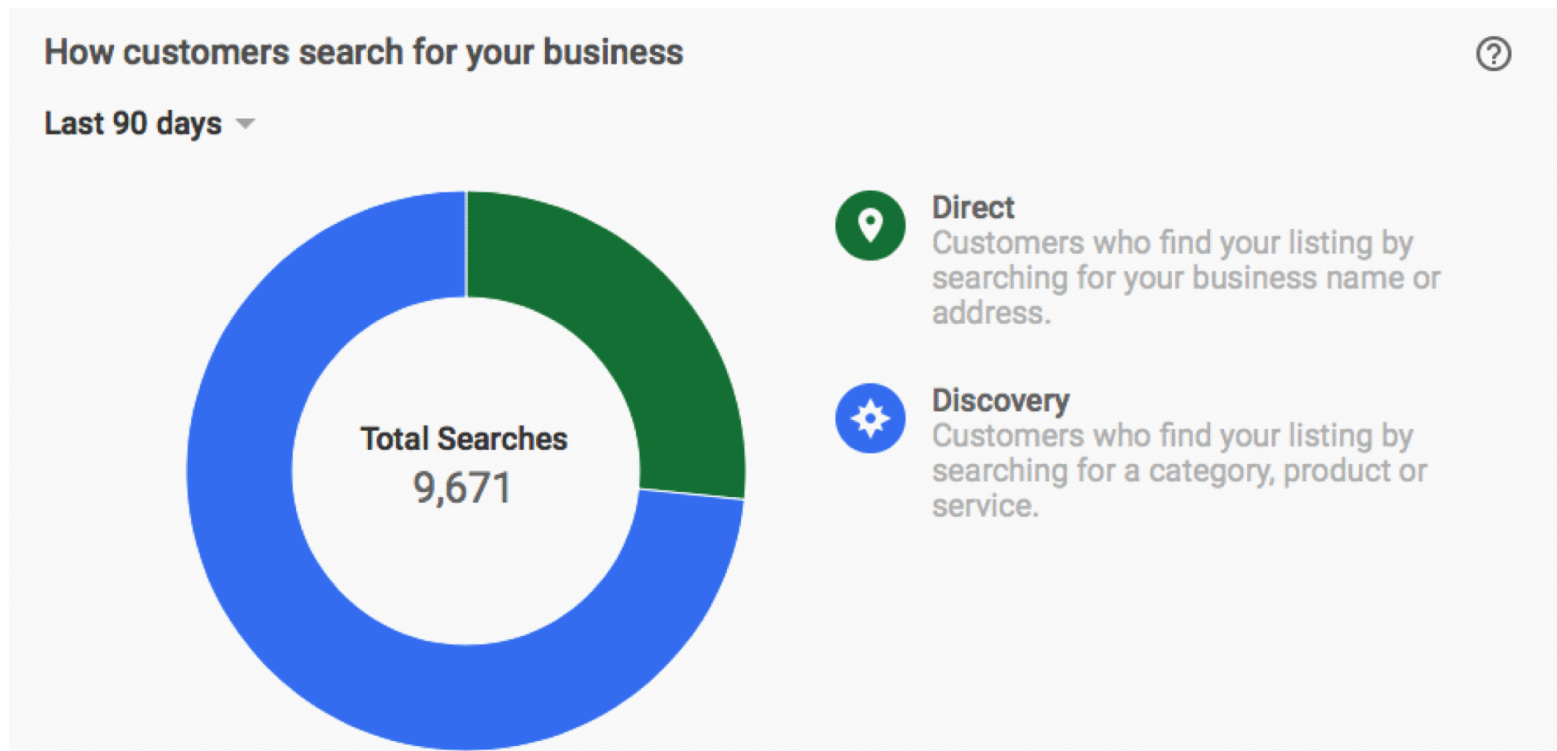
Total calls 198





# How do we circumvent the limitations imposed by Google?

Google does not allow raw data exportation



# How do we circumvent the limitations imposed by Google?

Google limits the history to 90 days



Google Analytics

# Conclusions

- Internet help psychiatric patients and relatives for obtaining informations about care.
- Searches on health centers take an important place.
- Map systems services can improve accessibility and reduce stigmatization.
- Photos improve the number of views of mental health centers.





<http://addictohug.ch/>



<https://facebook.com/addictologieHUG/>



<https://twitter.com/addictologiehug>



<https://linkedin.com/company/service-d'addictologie>



<https://youtube.com/channel/UCVhK2ZmXqSqWqR3rtgGHvpA/videos>



<http://hug-ge.ch/addictologie>