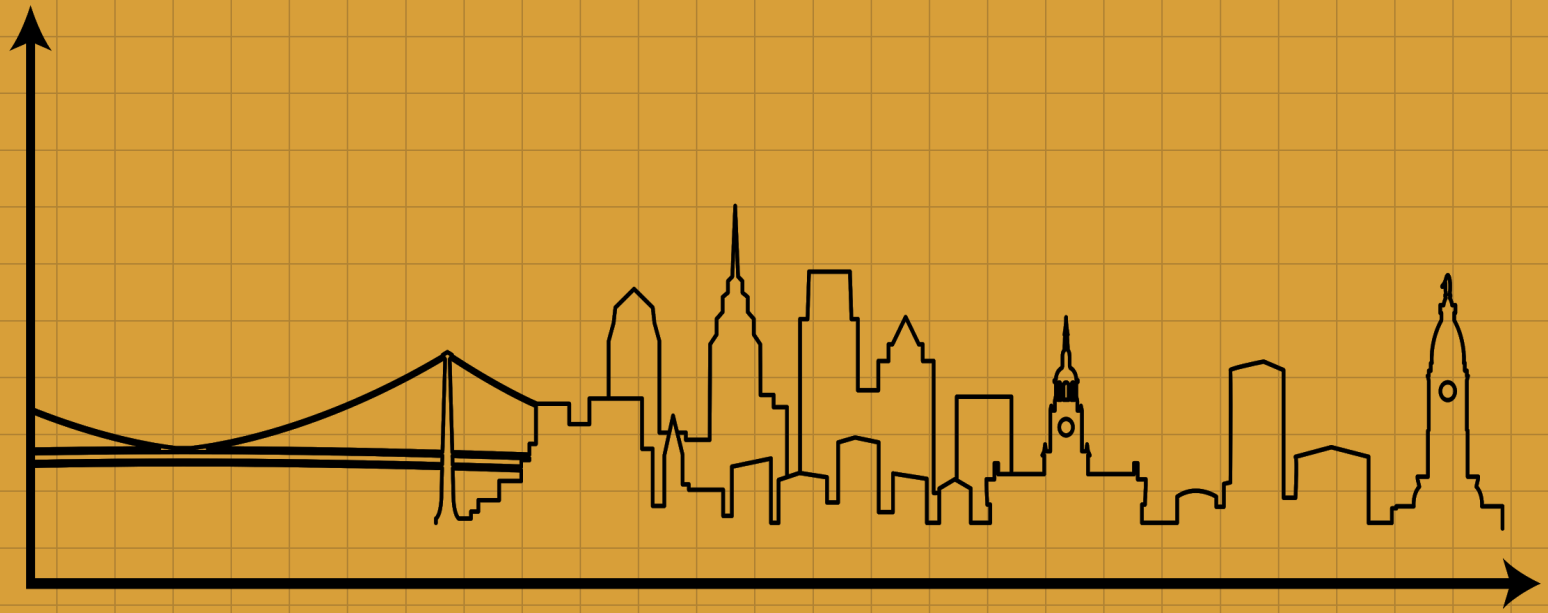
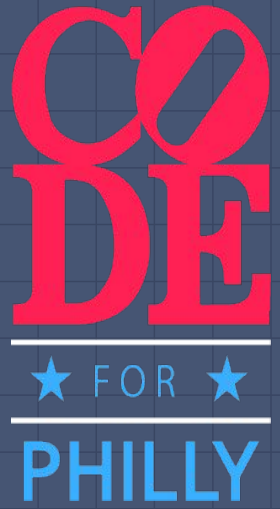


2020 Data Hackathon

Welcome!

Brought to you by your friends:



AT&T

CompassRed

DATAPHILLY

A WORD FROM OUR SPONSOR

AT&T

Joseph Divis

Assistant Vice President

External Affairs, Mid-Atlantic Region

Caroline Tunick

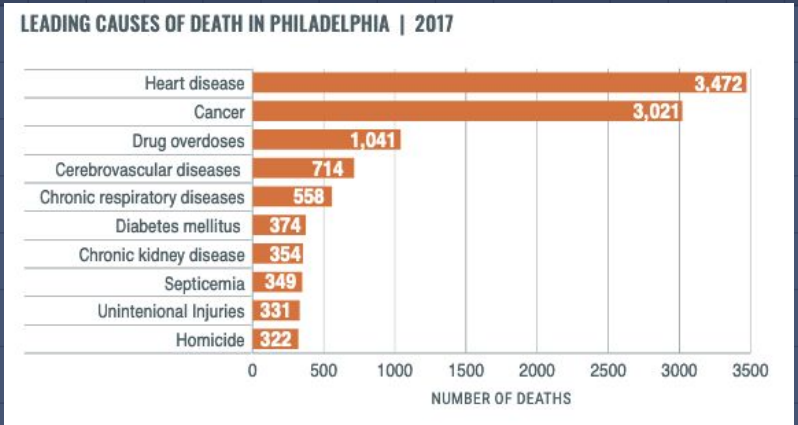
Area Retail Sales Manager

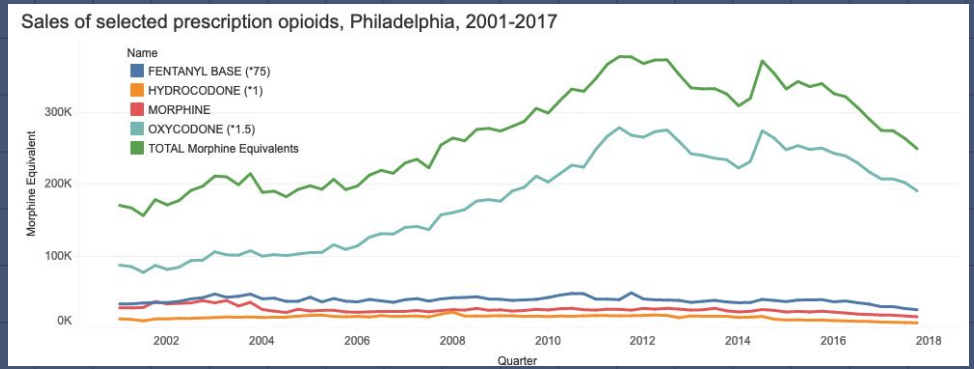
Greater Philadelphia Area

Organizers:

- Karla Fettich, R Ladies Philly
- Michael Chow, Code for Philly
- Joey Logan, CHOP
- Michael Becker, DataPhilly
- Dan Larson, Data Jawn
- Marieke Jackson, Code for Philly

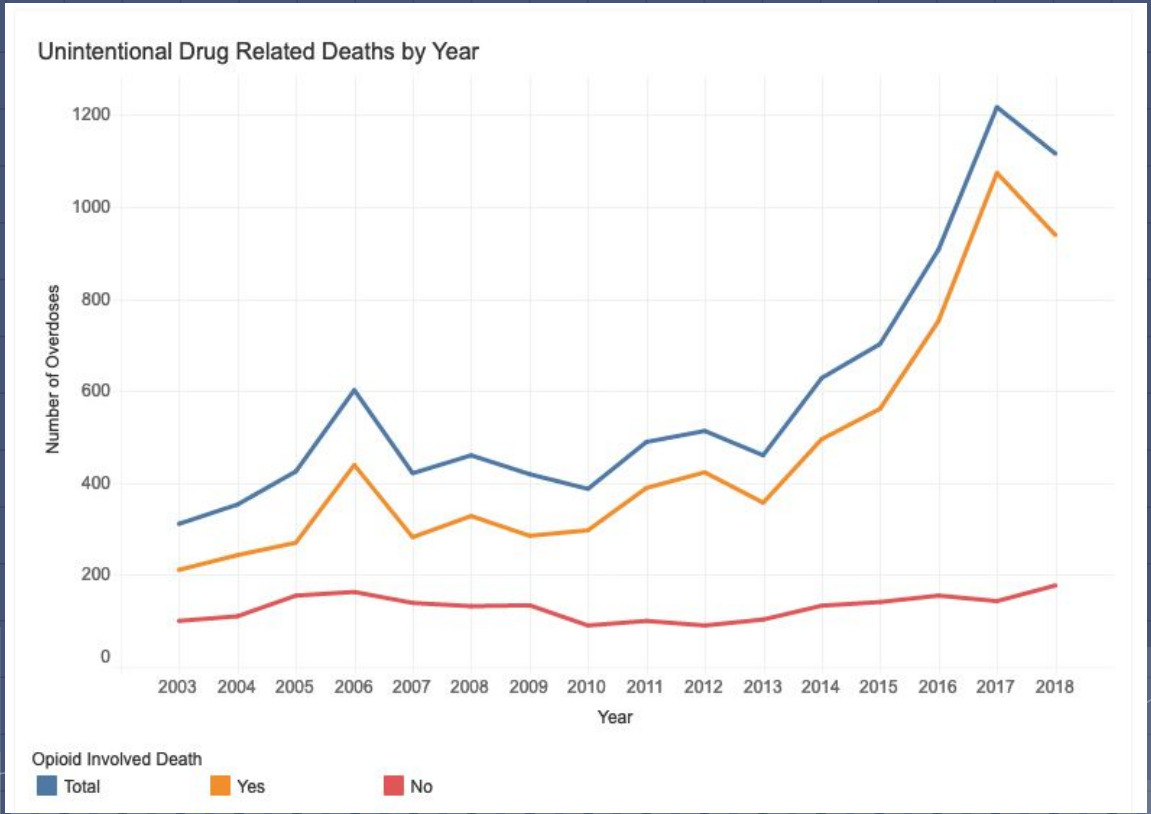
The Opioid Epidemic in Philadelphia





- 2017: 88% of drug-related deaths involved opioids
- 655,000 pounds of opioids were ingested in Philadelphia in 2016

The Opioid Epidemic in Philadelphia



HACKATHON GOALS

Cause we've got hack hopes

1

https://github.com/CodeForPhilly/datahack2020

General Questions

- Can we visualize the recovery process with regards to building understanding in the general public and better tools for warm handoffs?
- What have been the effects of citizens' access to Narcan?
- Can we estimate the population of individuals using IV drugs in Philadelphia?

https://github.com/CodeForPhilly/datahack2020

Outcomes

- For Participants
  - Learn new tools/skills
  - Explore new analyses
  - Make new data science friends
  - Work on projects that have a real impact
- For Partners
  - Useful Insights
  - Knowledge Sharing
  - Understandable
  - Transferable Output

https://github.com/CodeForPhilly/datahack2020

HEALTH FEDERATION OF PHILADELPHIA

Catherine Abrams, MPH, MMT, MT-BC
Opioid Response Program Manager

2

HEALTH FEDERATION
OF PHILADELPHIA
The keystone of community health since 1983

Opioid Program

Catherine Abrams
Opioid Response Program Coordinator

Describing buprenorphine access

About HFP

The Health Federation of Philadelphia serves as a keystone supporting a network of Community Health Centers as well as the broader base of public and private-sector organizations that deliver health and human services to vulnerable populations. We take a collaborative approach to promoting health by:

- Improving access to and quality of health care.
- Identifying, testing and implementing solutions to health disparities.
- Providing training and technical assistance to help other organizations operate more efficiently and effectively.

We offer many programs...

https://healthfederation.org/programs

MidAtlantic AIDS Education and Training Center (ETC), Philadelphia Performance Site

THE PHILADELPHIA ACE PROJECT

Philadelphia ACE Project

The Opioid Program

Opioid Epidemic Response Training
Learn More »

Project Goal:

Increase access to medication assisted treatment (MAT) to Philadelphians who have opioid use disorder.

Objective:

Increase the number of medical providers who prescribe medications for opioid use

Medications for Opioid Use Disorder (MOUD)

Methadone -

- highly regulated and only available at an Opioid Treatment Program
- requires daily visits ‘liquid handcuffs’

Buprenorphine

- prescriber must have waiver training
- referred to as ‘gold standard’ evidence based treatment

Naltrexone - extended release

- less restrictive access

Abstinence works for some...

however the risk of overdose is extremely high if relapse occurs

Buprenorphine access

Withdrawal Management

- Emergency Department
- Crisis Response Center
- Accesspoint

Prison

Substance Use Treatment

- Inpatient Substance Use Treatment
- Intensive Outpatient (IOP)

Primary Care

Mobile Van

and sometimes it is sold on the street

The Philadelphia Inquirer

This addiction treatment medicine is often sold on the streets — and may be preventing overdoses

by Aubrey Whelan, Updated: February 3, 2020

“But drug users, advocates, and researchers say that many people aren’t buying buprenorphine to get high. Rather, they’re using it to protect themselves from overdoses, to get through the pain of withdrawal, or even to engineer their own do-it-yourself addiction treatment”.

Waiver?

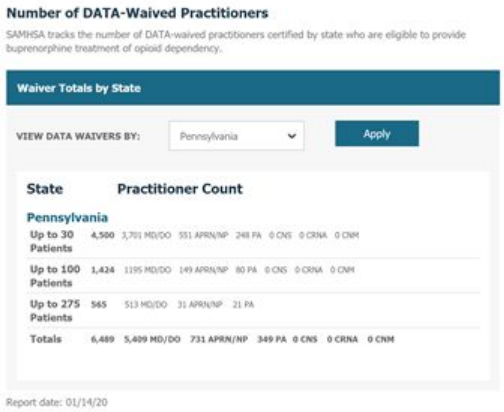
Federal law (DATA 2000) mandates training in order to write a prescription for buprenorphine (which is a controlled substance).

- MD/DO - 8 hour training
- Nurse Practitioners and Physician Assistants - 24 hour training

Waiver limits:

- 30 patients at first
- after a year, can apply for 100 or 275 patients

Why is access an issue if PA has the second highest total number of waivered providers behind New York?



Number of DATA-Waived Practitioners

SAMHSA tracks the number of DATA-waived practitioners certified by state who are eligible to provide buprenorphine treatment of opioid dependency.

Waiver Totals by State

VIEW DATA WAIVERS BY: Pennsylvania Apply

State	Practitioner Count						
Pennsylvania							
Up to 30 Patients	4,500	3,701 MD/DO	551 APRN/NP	248 PA	0 CNS	0 CRNA	0 CNM
Up to 100 Patients	1,424	1195 MD/DO	149 APRN/NP	80 PA	0 CNS	0 CRNA	0 CNM
Up to 275 Patients	565	513 MD/DO	31 APRN/NP	21 PA			
Totals	6,489	5,409 MD/DO	731 APRN/NP	349 PA	0 CNS	0 CRNA	0 CNM

Report date: 01/14/20

PA waivered providers:

- 6489 total

In Philadelphia:

- 527 waivered
- 385 prescribing

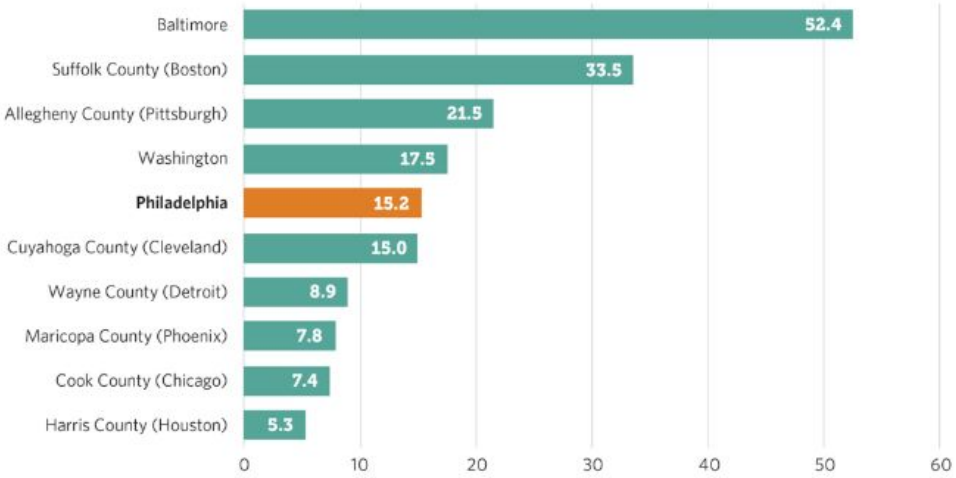
565 at 275
1,424 up to 100
4,500 up to 30 - can assume this group is not seeing many patients

https://www.samhsa.gov/medication-assisted-treatment/practitioner-program-data/certified-practitioners

Figure 2

Certified Buprenorphine Clinicians in Philadelphia, Comparable Jurisdictions

Prescribers per 100,000 people, September 2018



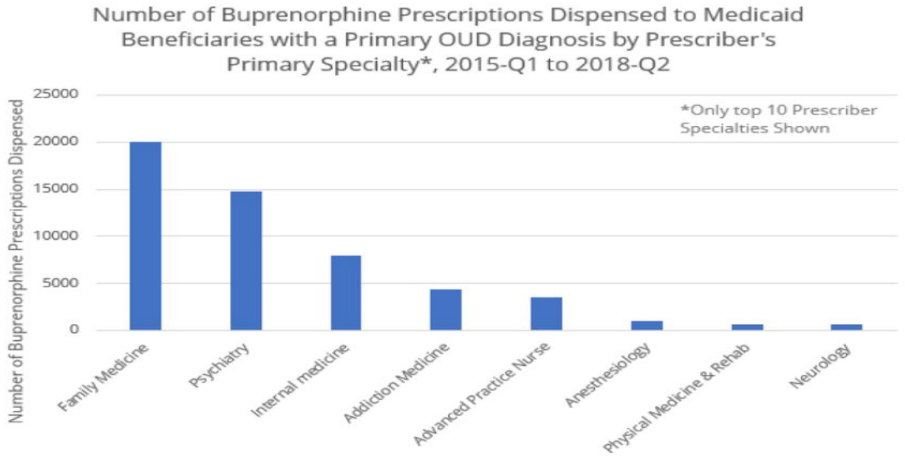
Note: Because health departments usually are agencies of county governments, seven of the jurisdictions listed are counties that include the cities shown in parentheses. Philadelphia is both a city and a county. Baltimore and Washington are not part of any county and have their own health departments.

Source: U.S. Substance Abuse and Mental Health Services Administration

©2019 The Pew Charitable Trusts

Is this still true and how accessible are they?

Family medicine physicians and psychiatrists prescribe buprenorphine the most



- Prescribers with a primary specialty of family medicine wrote the most buprenorphine prescriptions dispensed to Medicaid beneficiaries, followed by prescribers with a primary specialty of psychiatry.

PHILADELPHIA DEPARTMENT OF PUBLIC HEALTH
DECEMBER 2018

Intern project: Which local FQHCs* offer Medications for OUD?

Anya Slizik, Intern

Philadelphia sites were contacted to determine:

- appointment availability
- whether there are established referral pathways with other levels of care
- contact information for referrals
- number of waivered providers at the site

* Federally Qualified Health Centers

Her findings...

Determining where treatment is available is difficult even for a college educated person with access to cell service and the internet.

Getting complete data was impeded by:

- Lack of awareness of front desk staff
- Long wait times and transfers that sometimes led to the wrong person
- Incorrect information
- Reluctance to give information

Can you help us identify what access really looks like in Philadelphia?

Resources about Medications for Opioid Use Disorder or MAT

Articles:

https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2016/11/medication-assisted-treatment-improves-outcomes-for-patients-with-opioid-use-disorder

Podcasts:

The Opioid Tragedy, Part 1: “We've Addicted an Entire Generation” (Ep. 402)
The Opioid Tragedy, Part 2: “It's Not a Death Sentence” (Ep. 403)

Contact information:

cabrams@healthfederation.org

215-246-5588

The Health Federation of Philadelphia is continually developing new programs in response to both the needs of underserved communities and the availability of data indicating improved approaches to health care and behavioral support.

For more information about our initiatives, please visit:

w w w. healthfederation.org

HEALTH FEDERATION DATASETS

- Provider bupernorphine prescription limits
- Med-assisted Treatment Centers in Philadelphia

https://github.com/CodeForPhilly/datahack2020

PREVENTION POINT

Mary Craighead
Overdose Prevention & Harm Reduction Coordinator
mary.craighead@ppponline.org

Susanna Rhodes
SSP Lead and Community Partner Liaison
susanna@ppponline.org

WHO WE ARE

- Prevention Point Philadelphia is a non-profit, public health organization committed to protecting the health and welfare of drug users and sex workers. PPP uses harm reduction theory to reduce the harm associated with drug use and sex industry work by offering a safe and humane alternative to the war on drugs.

What is HARM REDUCTION?

Harm reduction is a set of practical public health strategies designed to reduce the negative consequences of drug use and promote healthy individuals and communities *without necessarily reducing drug use.*

Key Principles

- Designs & promotes public health interventions that minimize the harmful effects of drug use
- Understands drug use as a complex, multi-faceted issue that encompasses behaviors from severe abuse to total abstinence.
- Meets people where they are in the course of their drug use.
- Affirms and empowers drug users and communities to be the primary agents of change.

Agency Goals

- To reduce or stabilize HIV seroconversion rates in the target population
- To reduce or stabilize the Hepatitis B & C rates in the target population
- To educate the target population about transmission of HIV, Hep B/C, and strategies for risk reduction
- To reduce or stabilize new cases of sexually transmitted diseases among the target population by providing education and access to treatment
- To serve as a harm reduction services center specializing in dissemination of information to the target population on how to reduce drug-related harm
- To provide access to healthcare regardless of insurance status
- To provide a bridge to housing services
- To provide a bridge to recovery-related services

Services and Programs

- Syringe Exchange
- Harm Reduction Education
- Overdose Prevention Education/Training
- Overdose Surge Response
- Drop-In Center/Referrals
- Free Medical Clinics in-building and on the street including specialized wound care and MAT
- Mail service for individuals w/o housing
- HIV and HCV Rapid Testing
- Medication Assisted Treatment
- Case Management
- HCV Case Management and Treatment
- HIV Case Management
- Routinized Overdose Screening and Naloxone Distributing
- Homeless Outreach
- Respite Emergency Housing
- Navigation Center
- Police Assisted Diversion
- PREP Clinic

Narcan Program

- How is it helpful to know the effects of the Narcan program?
- How is it helpful for us to know an estimate of IV drug users?
- How would it help us to be able to improve navigating the referral system?

PREVENTION POINT DATASETS

- Narcan Refills
  - Refill-grain
  - Zip aggregates
- Dummy forms
- 2019 SEP exchanges
  - Syringes exchanged
    - x site
    - x month
  - Distinct participants
    - x site
    - x month

https://github.com/CodeForPhilly/datahack2020

5

Q&A

https://github.com/CodeForPhilly/datahack2020

THE HACK

4

https://github.com/CodeForPhilly/datahack2020

CODE OF CONDUCT

- Remember
  - Everyone here is volunteering their time
  - Everyone has different skills and experiences
  - Everyone here wants to help
- Be respectful and considerate with one another
- Attempt collaboration before conflict
- Encourage and support each other
- If you see something, say something (to organizers)

https://github.com/CodeForPhilly/datahack2020

TIMELINE

- Tomorrow: First hack day
- Weekly hack nights on Tuesdays (pizza provided!)
- March 6 (4 weeks from now!)
  - Wrap up analyses and start writing up report and presentation
- March 17 (5.5 weeks from now!): Presentation night
- March 24: Final reports due

https://github.com/CodeForPhilly/datahack2020

FIRST HACK DAY (TOMORROW)

- Brainstorm areas for analyses with input from partners
- Find like-minded scientists and form teams
- Pick a team leader
- Formulate research questions
- Develop analysis plan (break analysis into components)
- Set up all the needed tools
- Decide on team logistics (meeting frequency, location, etc)

https://github.com/CodeForPhilly/datahack2020

TEAM CONSIDERATIONS

- Analysis software: Python vs. R
- OS: Mac vs PC
- Visualization tools
- Preferences: Containerized vs non
- Change management experience: Git/GitHub
- Time pressure preferences

https://github.com/CodeForPhilly/datahack2020

Homework:

Which of the 3 areas are most interesting to you? Why? What do you hope to learn?

Start thinking about a team you may want to join: https://bit.ly/2GNdA5J

Join the Code for Philly slack channel:

codeforphilly.org/chat

See you tomorrow!

YOU CAN ALSO SPLIT YOUR CONTENT

White

Is the color of milk and fresh snow, the color produced by the combination of all the colors of the visible spectrum.

Black

Is the color of coal, ebony, and of outer space. It is the darkest color, the result of the absence of or complete absorption of light.

IN TWO OR THREE COLUMNS

Yellow

Is the color of gold, butter and ripe lemons. In the spectrum of visible light, yellow is found between green and orange.

Blue

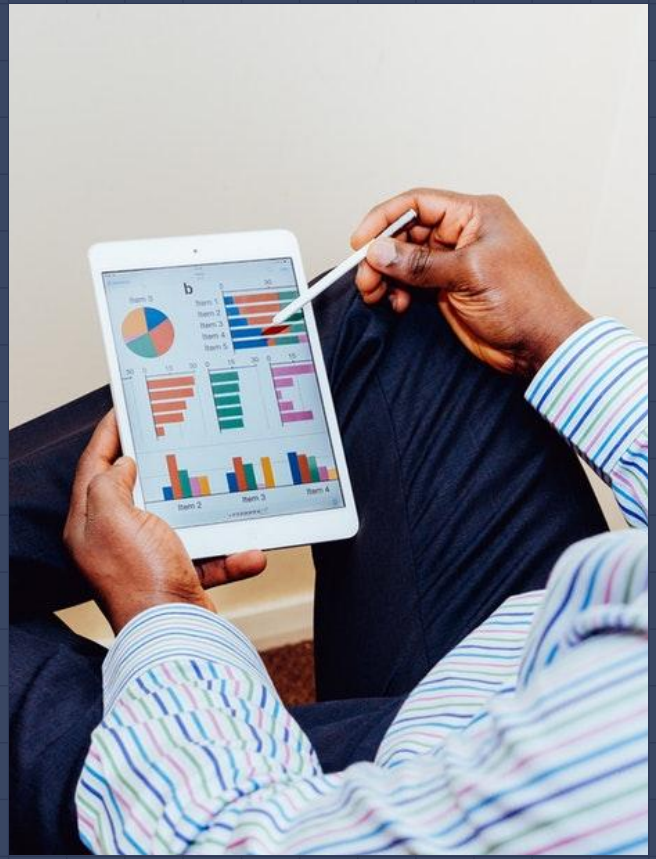
Is the colour of the clear sky and the deep sea. It is located between violet and green on the optical spectrum.

Red

Is the color of blood, and because of this it has historically been associated with sacrifice, danger and courage.

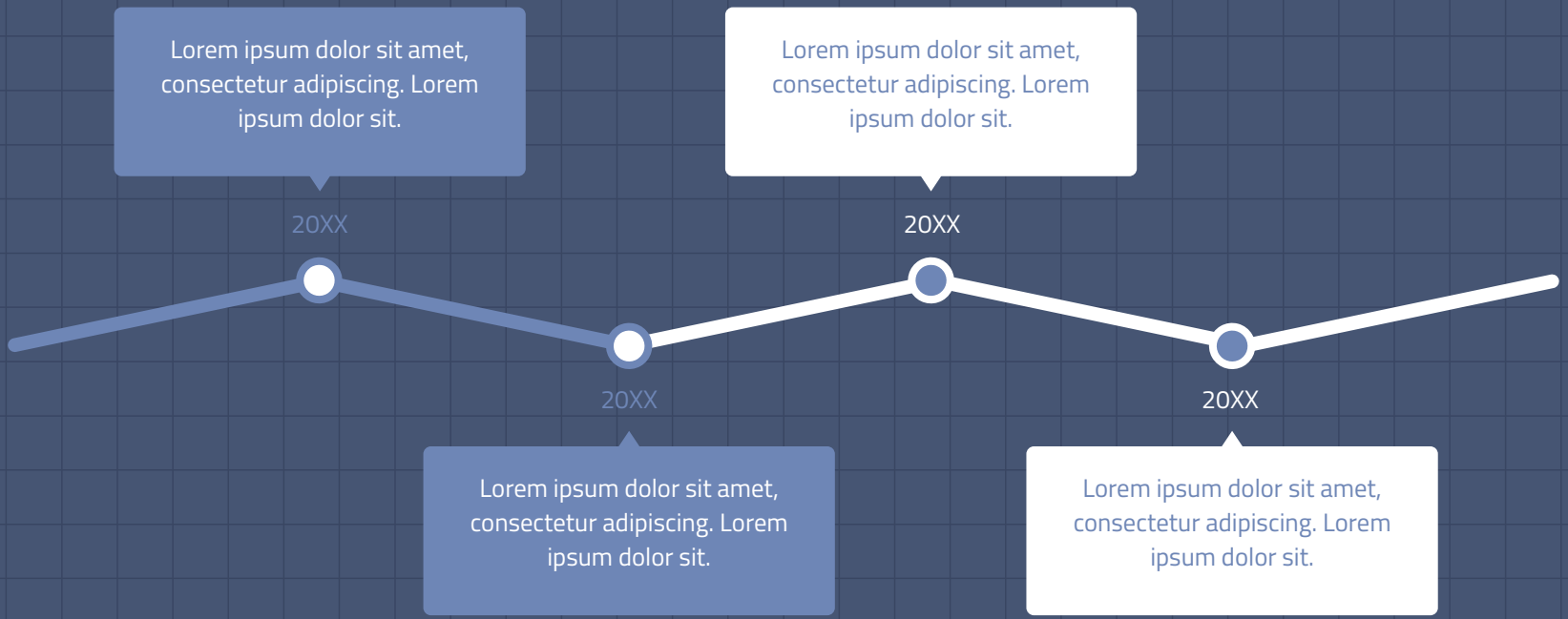
A PICTURE IS WORTH A THOUSAND WORDS

A complex idea can be conveyed with just a single still image, namely making it possible to absorb large amounts of data quickly.



WANT BIG IMPACT?
USE BIG IMAGE.

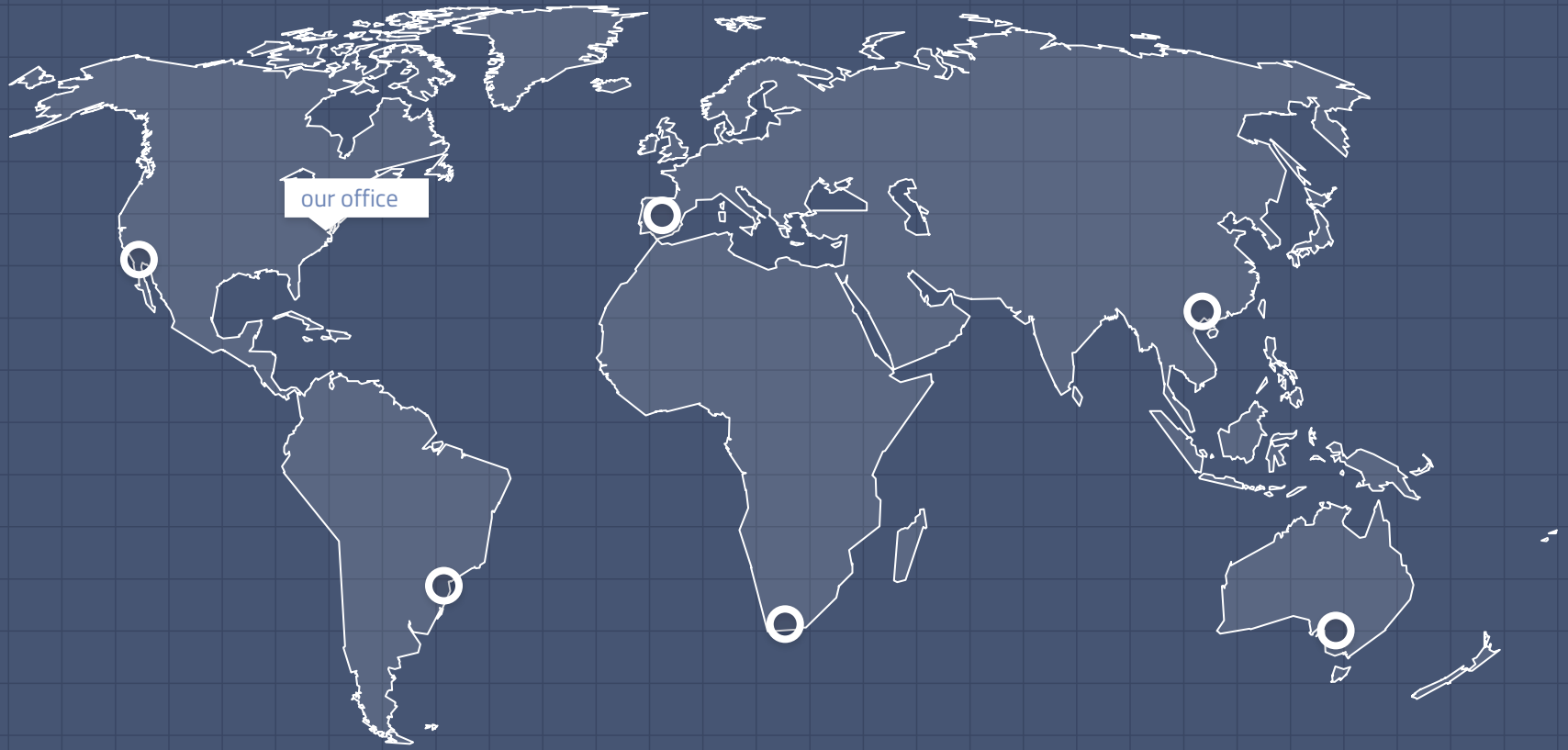
USE DIAGRAMS TO EXPLAIN YOUR IDEAS



AND TABLES TO COMPARE DATA

	A	B	C
Yellow	10	20	7
Blue	30	15	10
Orange	5	24	16

MAPS



89,526,124

Whoa! That's a big number, aren't you proud?

89,526,124$

That’s a lot of money

185,244 users

And a lot of users

100%

Total success!

OUR PROCESS IS EASY

STEP 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis sit amet odio vel purus bibendum luctus. Morbi iaculis dapibus tristique. In hac habitasse platea dictumst. Mauris convallis quam at. Morbi iaculis dapibus tristique.

STEP 2

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STEP 3

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LET'S REVIEW SOME CONCEPTS

Yellow

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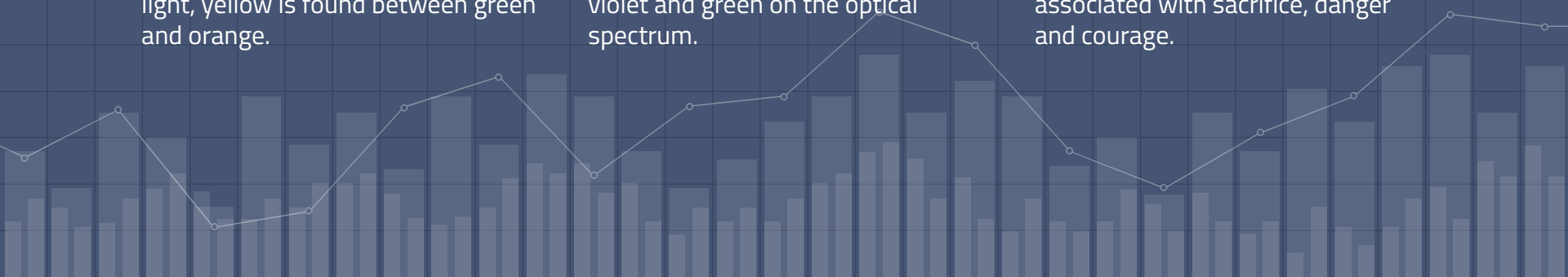
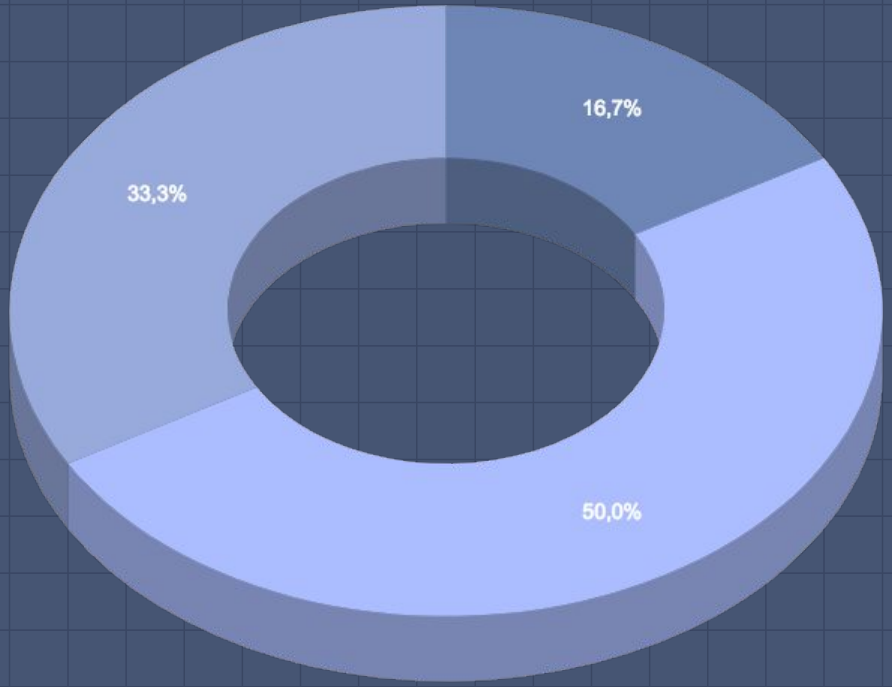
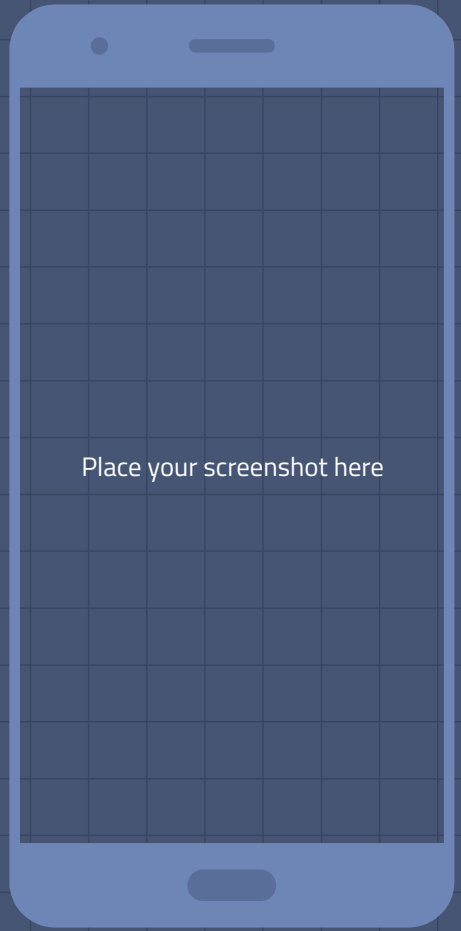




You can insert graphs from Google Sheets

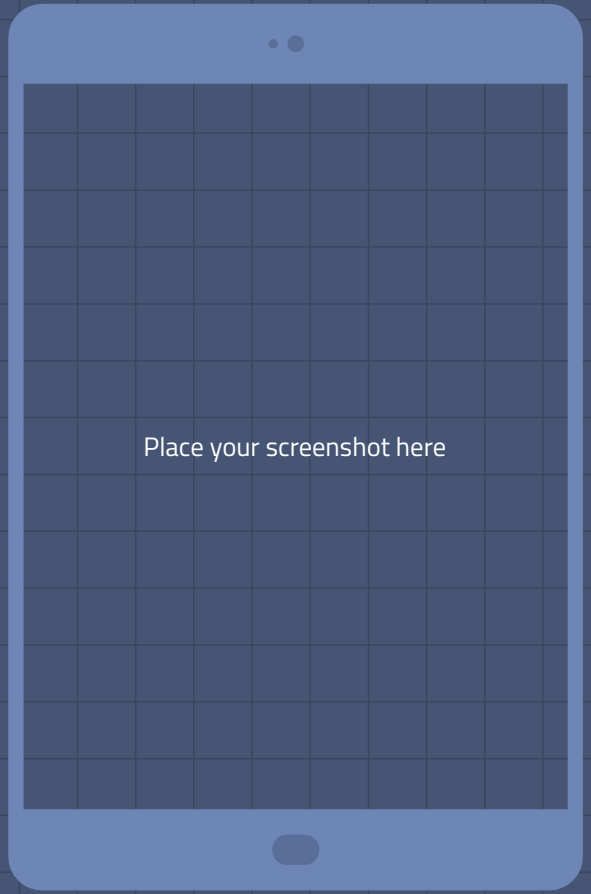
MOBILE PROJECT

Show and explain your web, app or software projects using these gadget templates.



TABLET PROJECT

Show and explain your web, app or software projects using these gadget templates.



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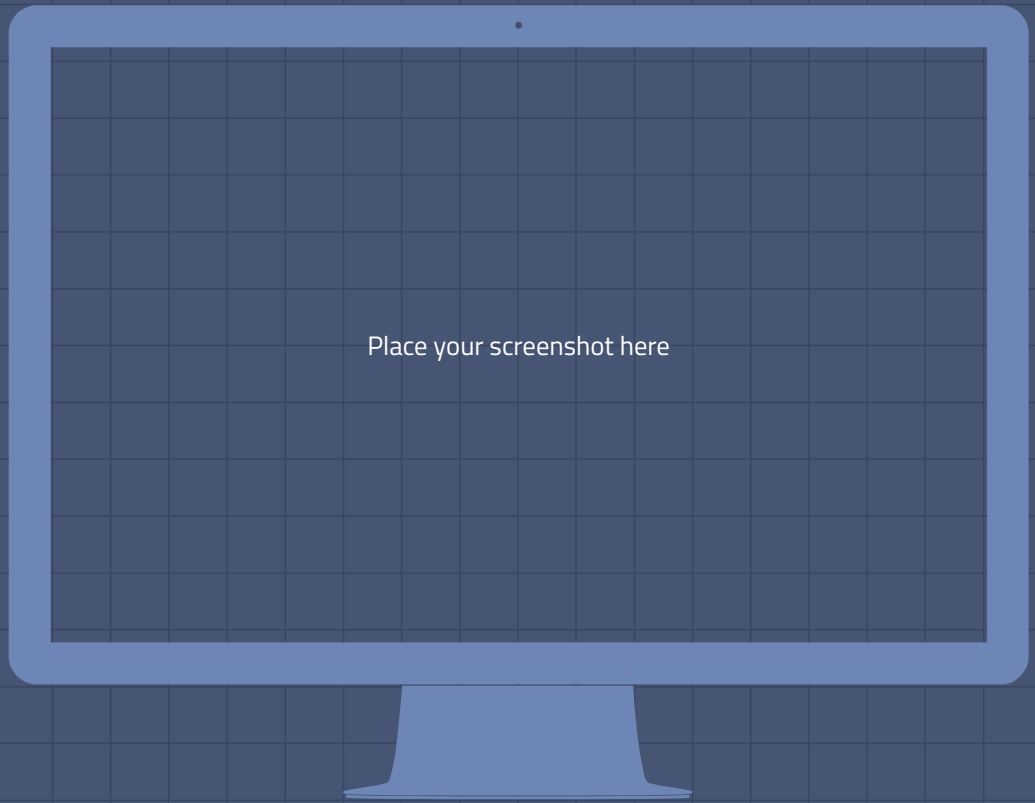

THANKS!

Any questions?

You can find me at

- @username
- user@mail.me

CREDITS

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by SlidesCarnival
- Photographs by Unsplash

PRESENTATION DESIGN

This presentation uses the following typographies and colors:

- Titles: Titillium Web ExtraLight
- Body copy: Titillium Web

You can download the fonts on this page:

https://www.fontsquirrel.com/fonts/titillium

Bluish gray **#6e86b6** · Dark bluish gray **#465573**

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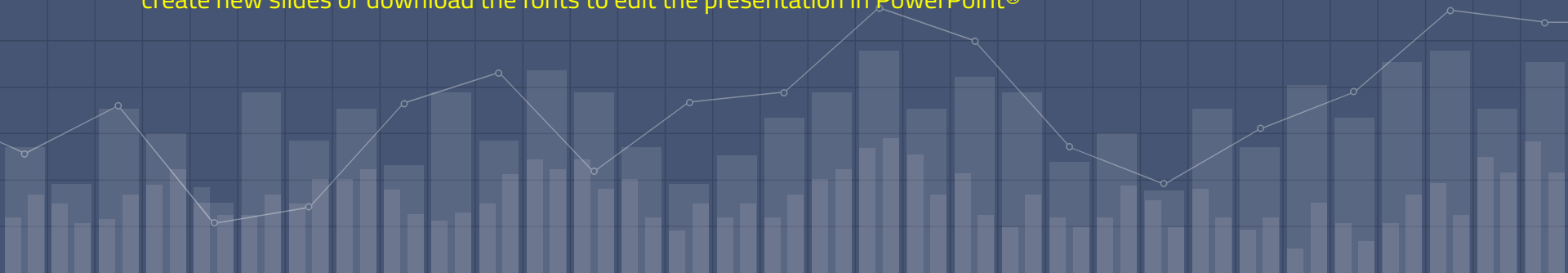
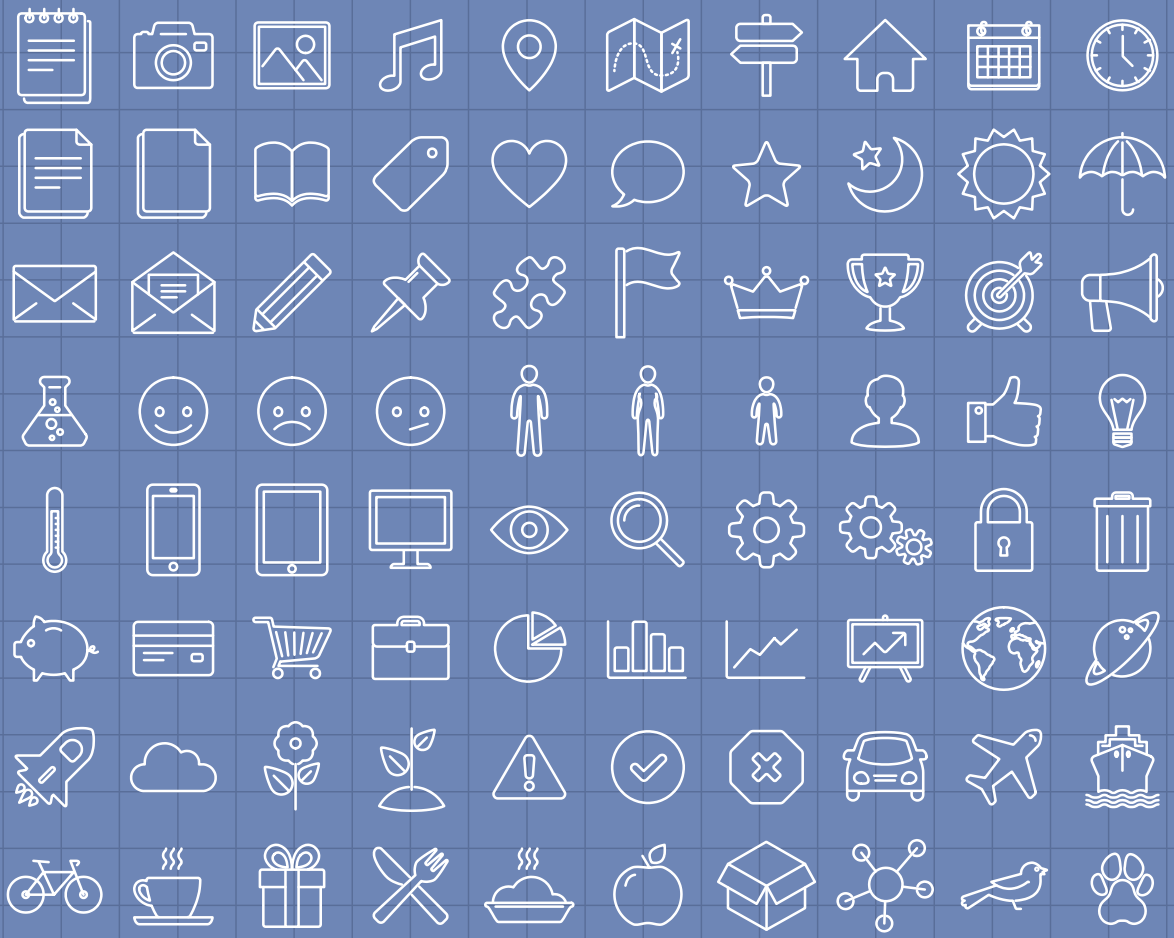




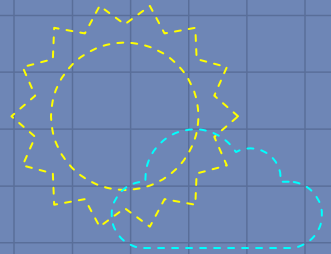
SlidesCarnival icons are editable shapes.

This means that you can:

- Resize them without losing quality.
- Change line color, width and style.

Isn't that nice? :)

Examples:



Now you can use any emoji as an icon!
And of course it resizes without losing quality and you can change the color.

How? Follow Google instructions
https://twitter.com/googledocs/status/730087240156643328

and many more...

Slides Carnival

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Ready to use, professional and customizable

Blow your audience away with attractive visuals