Building a Data Viz

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Depuis le début de la crise et à cause du conflit au nord, environ **412 401** personnes ont été forcées de fuir le nord du pays. Parmis ces personnes **203 843** sont des déplacés internes et **208 558** sont des réfugiés dans les pays voisins. Environ **5,01 millions** de personnes sont affectées par la crise complexe au Mali, y compris **4,6 millions** de personnes à risque d'insécurité alimentaire. Les pénuries de nourriture et les mouvements de population internes ont eu des conséquences importantes sur la capacité de résilience des populations.

Réponse Humanitaire

Nombre de personnes assistées par Cluster

- 📖 **400 389**
- 🥣 **2 525 628**
- 😊 **105 644**
- 🤲 **269 103**
- 🚰 **1 144 239**
- ⚕️ **840 000**

Situation du Choléra

219 Cas de Choléra

19 Cas rapportés de décès liés au Choléra

Légende de la carte

- 🏃 Déplacés Internes
- 🚶 Réfugiés maliens
- **xxxx** # de Déplacés Internes
- **xxxx** # de Réfugiés maliens
- ✸ Zones sous contrôle des groupes armés
- ➜ Déplacements de population du Mali vers les pays voisins à cause du conflit

Sécurité Alimentaire

4,6 millions de personnes restent estimées à risque d'insécurité alimentaire
2,97 millions de personnes affectées par la sécheresse vivant au Sud
1,63 millions de personnes affectées par le conflit vivant au Nord

1,84 millions
1,13 millions

- Nombre de personnes à risque d'insécurité alimentaire sévère
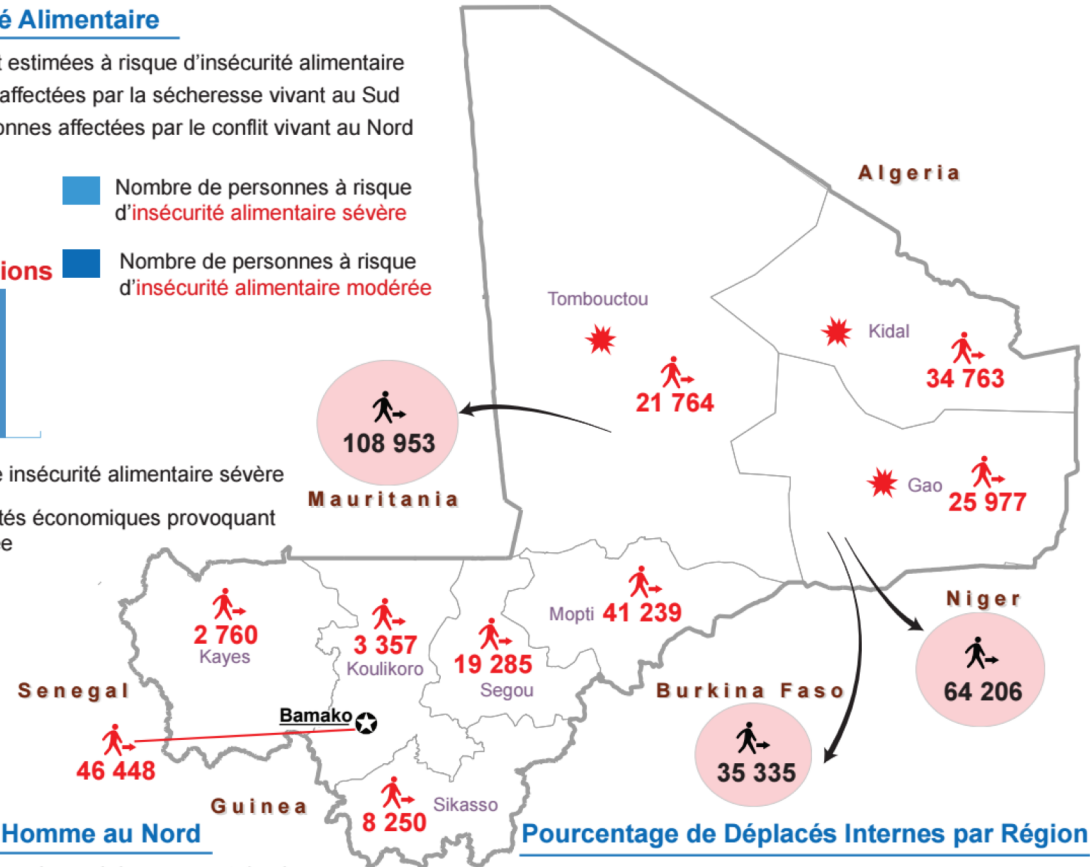- Nombre de personnes à risque d'insécurité alimentaire modérée
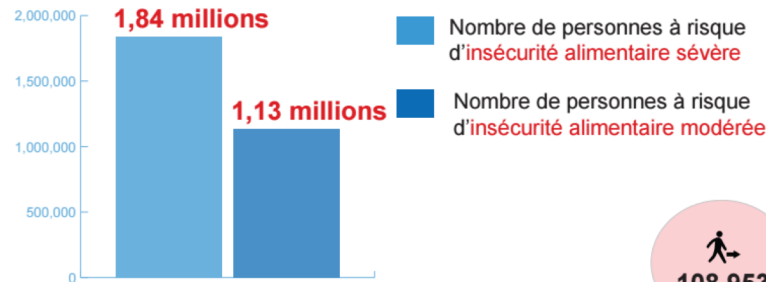
210 communes affectées par une insécurité alimentaire sévère

> 56 communes vivent de difficultés économiques provoquant une insécurité alimentaire modérée
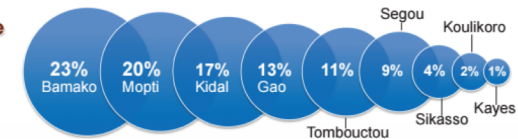
Crise Nutritonnelle

560 000 enfants de moins de 5 ans sont en risque de malnutrition aiguë, dont **175 000** en malnutrition aiguë sévère et **385 000** en malnutrition aiguë modérée.

Les Violations des Droits de l'Homme au Nord

Les violations des droits de l'homme dans le nord du pays sont de plus en plus fréquentes en partie du fait des exactions perpétrées par les groupes armés. Les femmes et les enfants sont des cibles particulièrement vulnérables. La vulnérabilité de ces personnes est aggravée par l'accès limité aux Services Sociaux de Base.

Algeria
Tombouctou **21 764**
Kidal **34 763**
Gao **25 977**
Mauritania **108 953**
Niger **64 206**
Mopti **41 239**
2 760 Kayes
3 357 Koulikoro
19 285 Segou
Burkina Faso **35 335**
Senegal
Bamako ★
46 448
Guinea
8 250 Sikasso
Cote d'Ivoire

Pourcentage de Déplacés Internes par Région

23% Bamako
20% Mopti
17% Kidal
13% Gao
11% Tombouctou
9% Segou
4% Koulikoro
2% Sikasso
1% Kayes

DATA PLAYBOOK: SLIDEDECK 12

Food security and malnutrition remain major concerns in Mali. During the lean season (June - August), i.e. before the next harvests when grain stocks are depleted, it is estimated that nearly one out of every six households will need support for their livelihood. Among them, 410,000 people will require immediate food assistance. Countrywide, one out of every eight children suffers from malnutrition; including 181,000 who are affected by the most severe form and face a nine-fold mortality risk.
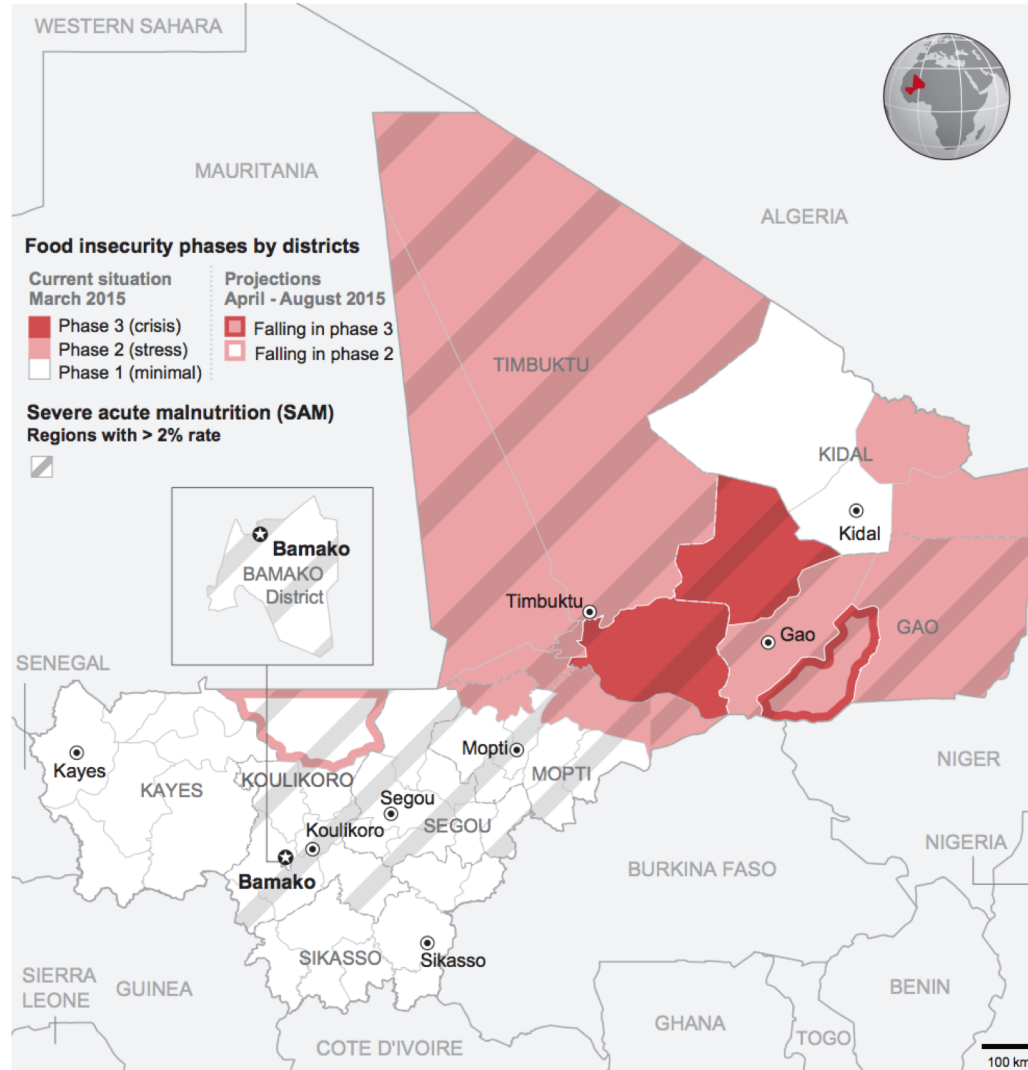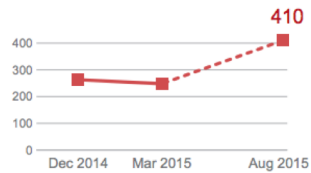
FOOD SECURITY

2.5 million people affected by moderate and severe food insecurity (as of 31 March 2015)

16% of the total population

 # people in need of immediate food aid
(phases 3 and 4) - in thousands -

400	410
300	
200	
100	
0	

Dec 2014   Mar 2015   Aug 2015

Food insecurity phases by districts

Current situation March 2015
- Phase 3 (crisis)
- Phase 2 (stress)
- Phase 1 (minimal)

Projections April - August 2015
- Falling in phase 3
- Falling in phase 2

Severe acute malnutrition (SAM)
Regions with > 2% rate

WESTERN SAHARA
MAURITANIA
ALGERIA
TIMBUKTU
KIDAL
Kidal
Timbuktu
Gao
GAO
Bamako
BAMAKO District
SENEGAL
Kayes
KAYES
KOULIKORO
Mopti
MOPTI
NIGER
Segou
Koulikoro
SEGOU
Bamako
BURKINA FASO
NIGERIA
SIERRA LEONE
GUINEA
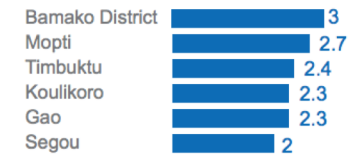SIKASSO
Sikasso
COTE D'IVOIRE
GHANA
TOGO
BENIN

100 km

MALNUTRITION

181,000 children affected by severe acute malnutrition (SAM)
(Estimate based on 2014 SMART surveys)

Regions with > 2% rate of severe acute malnutrition (SAM)

Bamako District	3
Mopti	2.7
Timbuktu	2.4
Koulikoro	2.3
Gao	2.3
Segou	2

PASTORAL SITUATION

Stock breeder communities in the north of the country are struggling due to a deficit of fodder registered along Niger, Burkina Faso and Mauritania cross-border strips as well as high cattle mortality rates. An early pastoralist lean season is expected. In the regions of Gao, Timbuktu and Mopti, unusual cattle movements have been observed as a result from the lack of pastures and the prevailing insecurity resulting in a high concentration of herds.

- Affected areas (May - August estimates)
- Movements of cattle

MAURITANIA
ALGERIA
TIMBUKTU
KIDAL
GAO
MOPTI
Niger
Senegal
BURKINA FASO
NIGER
Bamako
GUINEA

DATA PLAYBOOK: SLIDEDECK 12

8 Steps for success...

1. Define your audience

2. Set clear goals

3. Define your layout

4. Choose your topic and your story

5. Collect your data

6. Process your data

7. Find the story in the data..

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8. Identify Patterns

COMPARE VALUES

Bar chart

Line chart

ANALYZE TRENDS

Line chart

Bar chart

COMPREHEND THE RELATIONSHIP BETWEEN DATA SETS

Line chart

Scatter plot

Bubble chart

SHOW THE INDIVIDUAL PARTS THAT MAKE UP A WHOLE

Pie chart

Stacked bar

Stacked column

UNDERSTAND HOW DATA IS DISTRIBUTED

Scatter plot

Line chart

Bar chart

4 Data Types

Defining your data...

QUANTITATIVE
Data that can be counted or measured; all values are numerical.

DISCRETE
Numerical data that has a finite number of possible values. Example: Number of employees in the office.

CONTINUOUS
Data that is measured and has a value within a range. Example: Rainfall in a year.

CATEGORICAL
Data that can be sorted according to group or category. Example: Types of products sold.

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DATA PLAYBOOK: SLIDEDECK 12

Data relationships...

NOMINAL COMPARISON
This is a simple comparison of the quantitative values of subcategories. Example: Number of visitors to various websites.
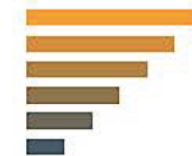
TIME-SERIES
This tracks changes in values of a consistent metric over time. Example: Monthly sales.

CORRELATION
This is data with two or more variables that may demonstrate a positive or negative correlation to each other. Example: Salaries according to education level.

RANKING
This shows how two or more values compare to each other in relative magnitude. Example: Historic weather patterns, ranked from the hottest months to the coldest.

DEVIATION
This examines how data points relate to each other, particularly how far any given data point differs from the mean. Example: Amusement park tickets sold on a rainy day vs. a regular day.

DISTRIBUTION
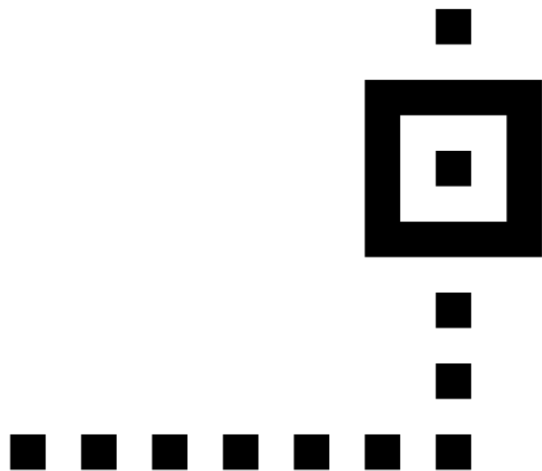This shows data distribution, often around a central value. Example: Heights of players on a basketball team.

PART-TO-WHOLE RELATIONSHIPS
This shows a subset of data compared to the larger whole. Example: Percentage of customers purchasing specific products.
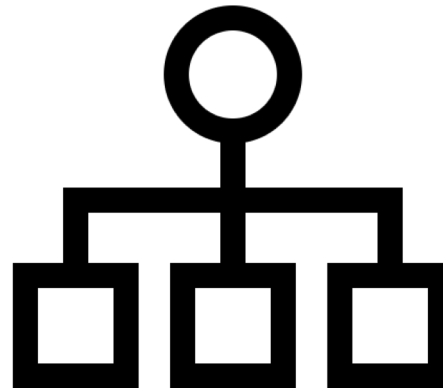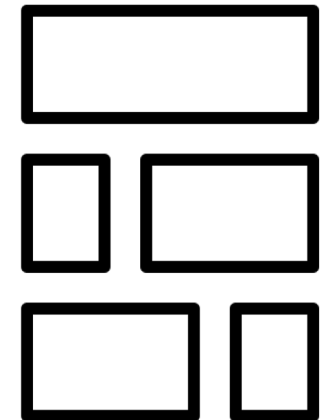
Design Principles

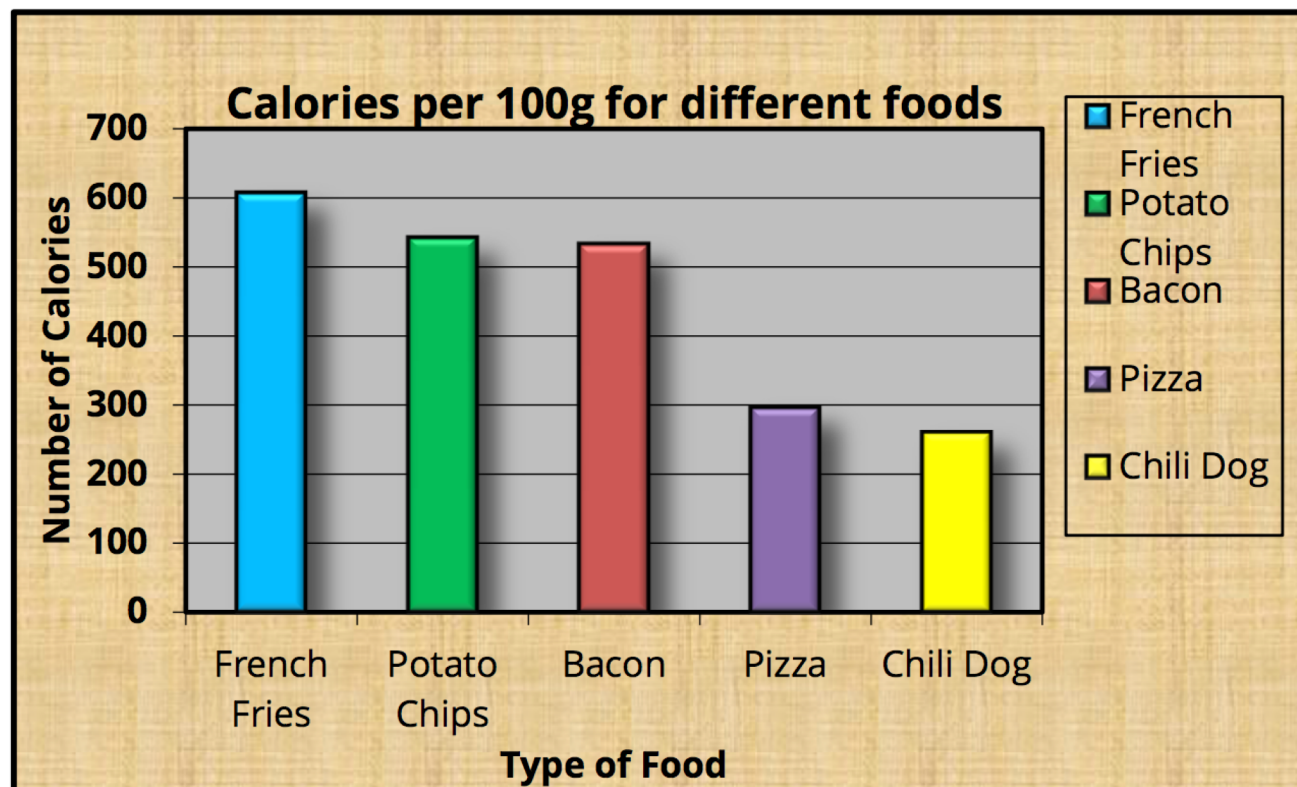**Simplification**

Hierarchy

Layout

Created by Chameleon Design
from Noun Project

Created by Dimiter Petrov
from Noun Project

Created by joeartcon
from Noun Project

Simplification

Calories per 100g for different foods

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Simplification

Calories per 100g

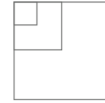|				
607	542	533	296	260
French Fries	Potato Chips	Bacon	Pizza	Chili Dog
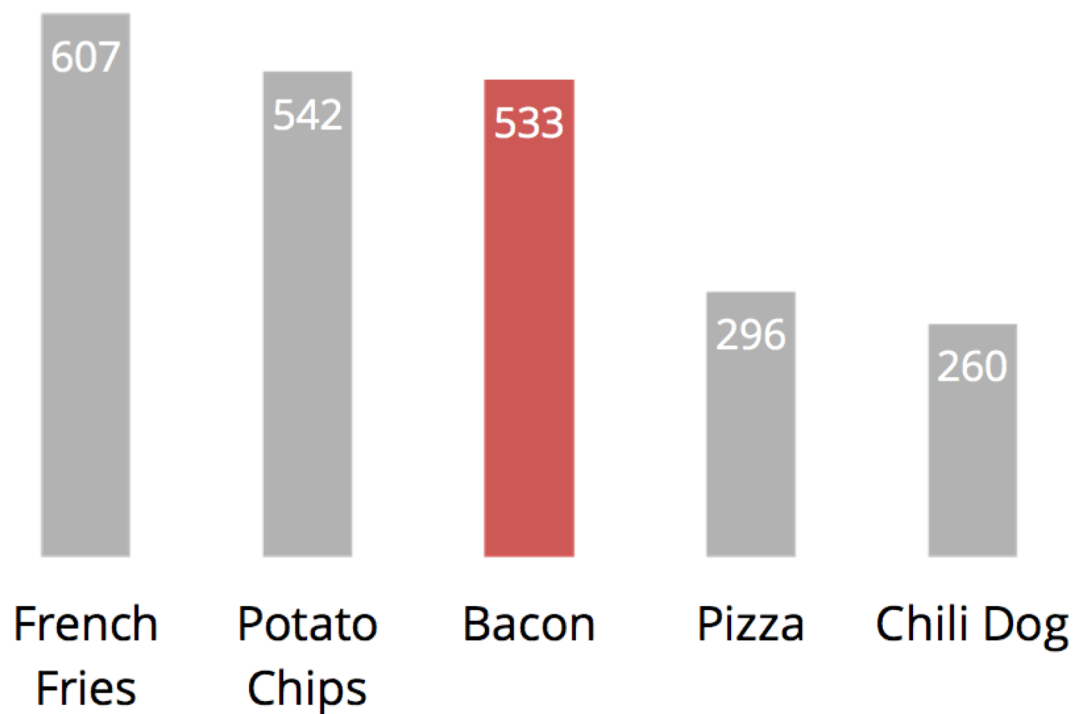
Visual hierarchy

The most important information will be the most visually prominent

1. 2. 3.

Visual hierarchy

Size

Contrast

Position
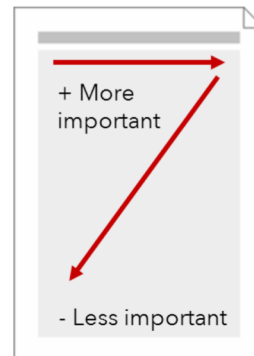
Heading 1

Heading 2

Heading 3

Heading 1

Heading 2

Heading 3

Eye flow – "Z" path

+ More important

- Less important

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DATA PLAYBOOK: SLIDEDECK 12
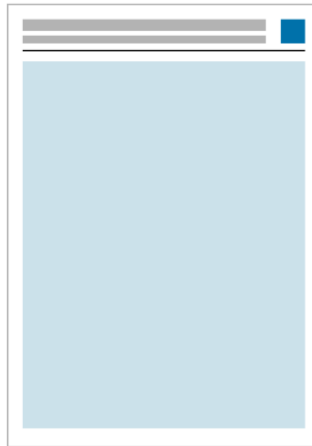
Layout

Use portrait for publication

Use landscape for presentation

What is the easiest "document" to read and why?

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The grid
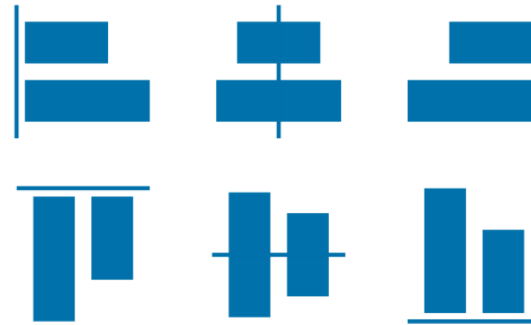
The baseline grid provides a guide for positioning elements on the page with accuracy, which is difficult to achieve by eye alone

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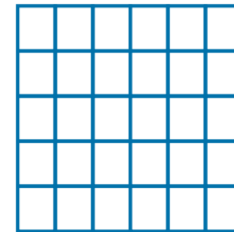
Alignment

Makes your design visually more appealing and helps to create relationships between elements

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Proximity

Related elements should be placed closed
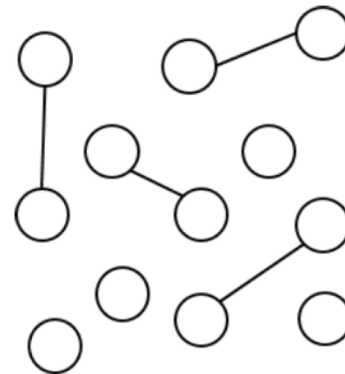Unrelated elements should not be placed closed

Eyes perceive objects as belonging together when they are enclosed
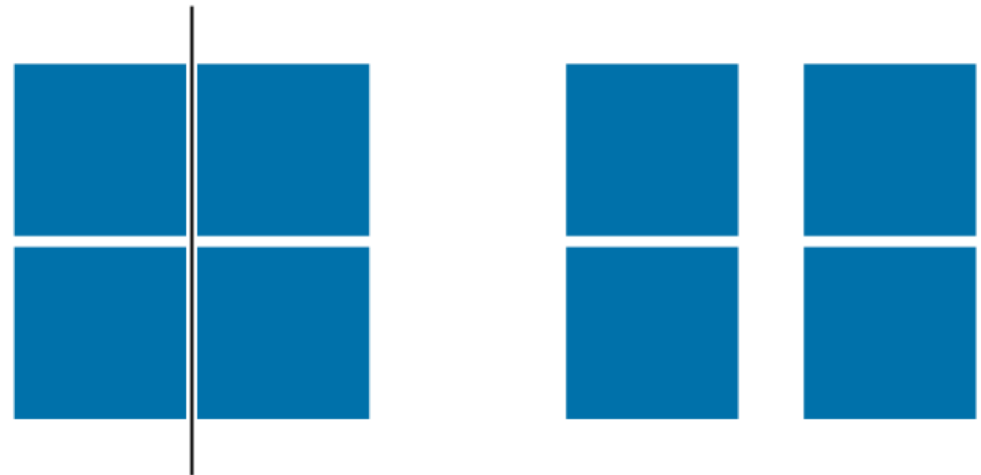
Enclosure
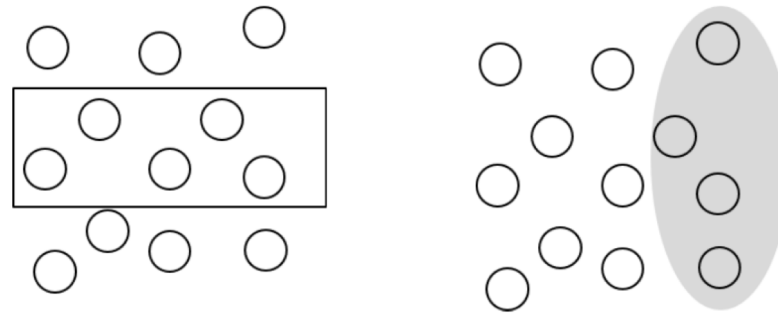
Connection

Eyes perceive objects as belonging together when they are connected

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Separation

Lines or space

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Space

Find a good balance, not too cluttered nor too much empty space

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Establish a style for each element in a design and use it on similar element

Consistency

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Exercise

The African Union (AU) is a continental union consisting of all 55 countries on the African continent. It was established on 26 May 2001 in Addis Ababa, Ethiopia, and launched on 9 July 2002 in South Africa,[4] with the aim of replacing the Organisation of African Unity (OAU). The most important decisions of the AU are made by the Assembly of the African Union, a semi-annual meeting of the heads of state and government of its member states. The AU's secretariat, the African Union Commission, is based in Addis Ababa.

All UN member states based in Africa and African waters are members of the AU, as is the disputed Sahrawi Arab Democratic Republic (SADR). Morocco, which claims sovereignty over the SADR's territory, withdrew from the Organisation of African Unity, the AU's predecessor, in 1984 due to the admission of the SADR as a member. However, on 30 January 2017 the AU admitted Morocco as a member state.

Top 10 Populated countries in Africa

1. Nigeria: 182.2M

1. Ethiopia 99.39M
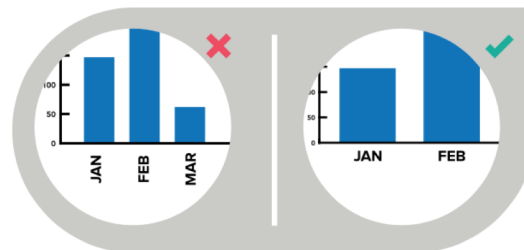
1. D.R. Congo 77.27M

1. Algeria 39.67M

1. Uganda 39.03M

Please find the other missing countries and other data that you might find interesting...

Examples

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Nord Kivu – Retour par territoire (2010-2011)
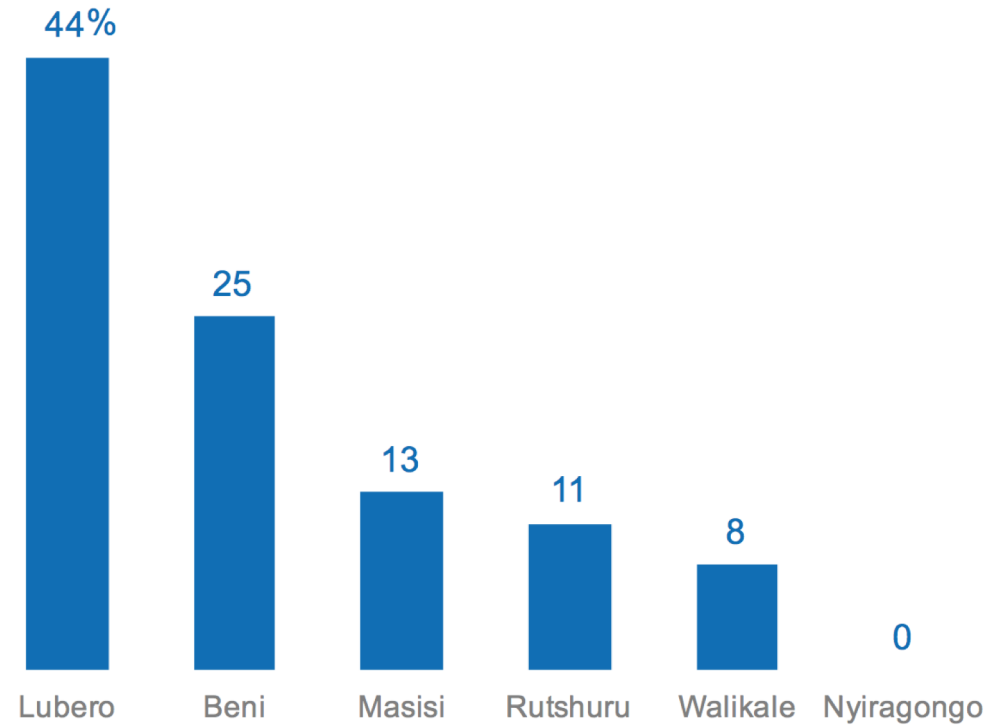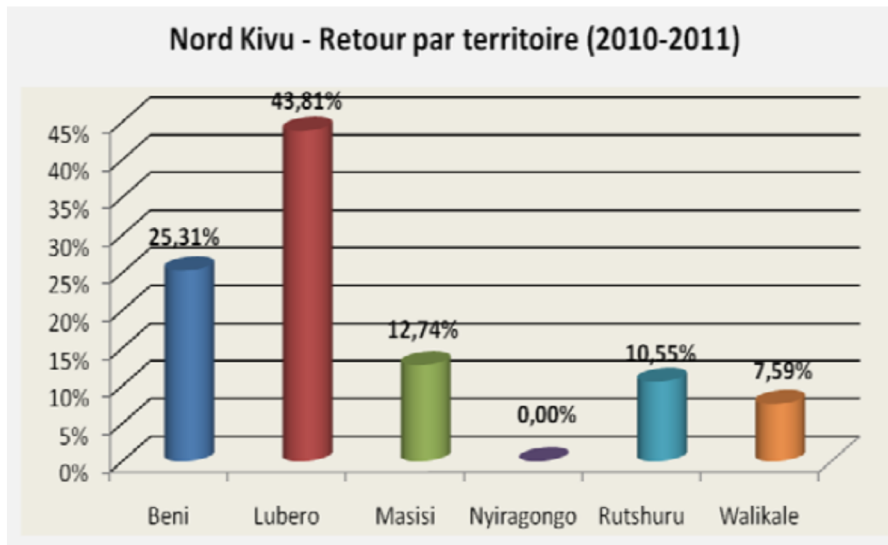
Best Practices for bar charts

USE HORIZONTAL LABELS
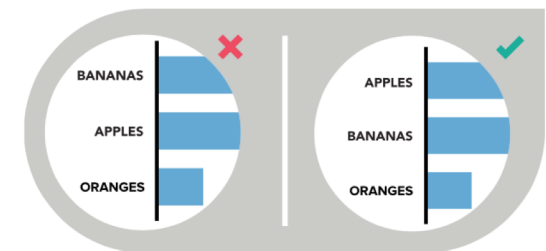Avoid steep diagonal or vertical type, as it can be difficult to read.

START THE Y-AXIS VALUE AT 0
Starting at a value above zero truncates the bars and doesn't accurately reflect the full value.

USE CONSISTENT COLORS
Use one color for bar charts. You may use an accent color to highlight a significant data point.
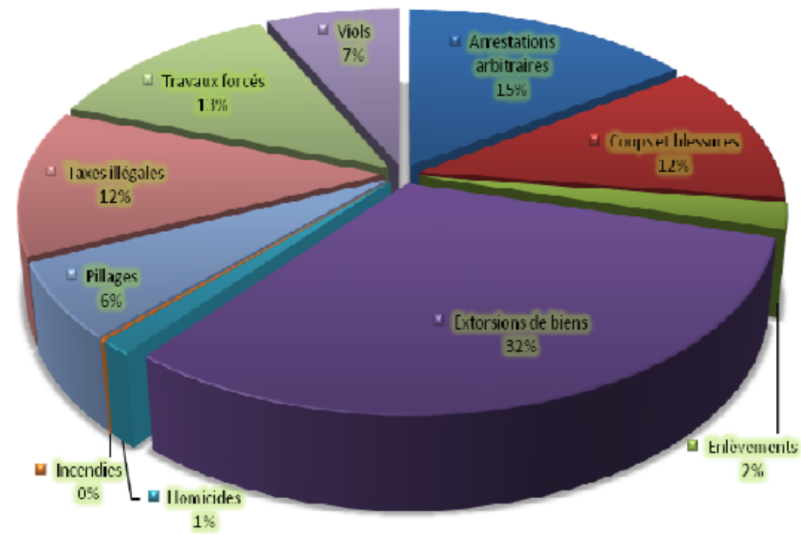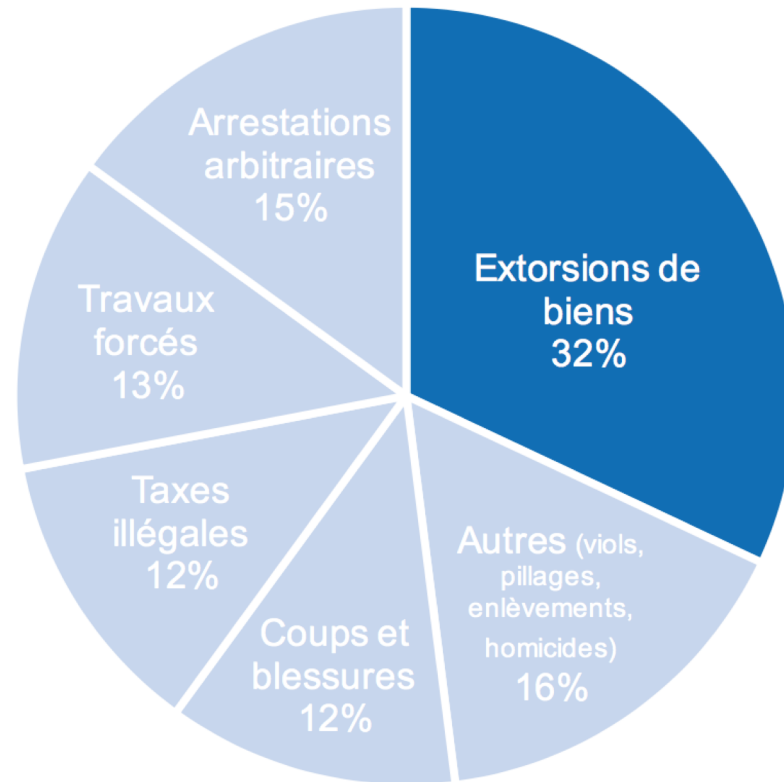
ORDER DATA APPROPRIATELY
Order categories alphabetically, sequentially, or by value.

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Arrestations arbitraires 15%

Travaux forcés 13%

Taxes illégales 12%

Coups et blessures 12%

Extorsions de biens 32%

Autres (viols, pillages, enlèvements, homicides) 16%

Extorsions de biens — 32 %
Arrestations arbitraires — 15
Travaux forcés — 13
Coups et blessures — 12
Taxes illégales — 12
Viols — 7
Pillages — 6
Enlèvements — 2
Homicides — 1
Incendies — 0

Middle East and North Africa — 1,838

Asia and the Pacific — 1,321

Europe — 783

Americas — 306

Africa — 4,064

Middle East and North Africa — 1,838

Asia and the Pacific — 1,321

Europe — 783

Americas — 306

Africa — 4,064

EHRP 2012 Requirements and Funding per sector

10 9 8 7 6 5 4 3 1 2
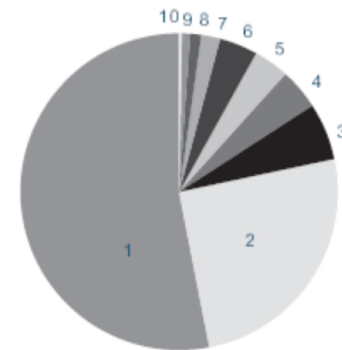
Total Request = USD 763.8 M

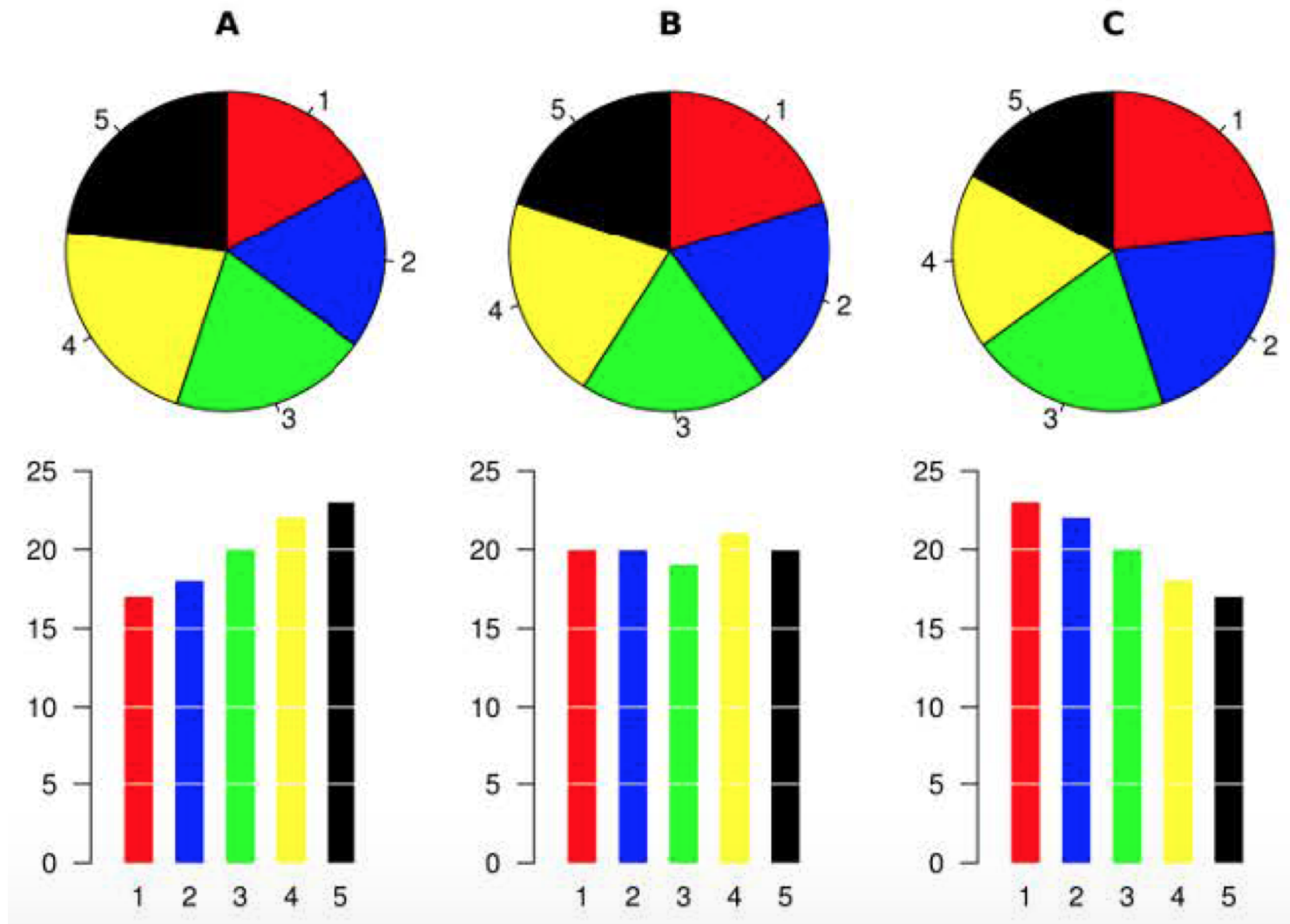| Value	%	Sector
404.3	16%	1. MULTI-SECTOR / REFUGEES
192.2	33%	2. FOOD AID
44.8	0%	3. AGRIC & LIVESTOCK
32.2	0%	4. NUTRITION
28.6	1%	5. WASH
28.3	1%	6. EARLY RECOVERY
15.1	0%	7. HEALTH
9.6	0%	8. PROTECTION
5.9	0%	9. EDUCATION
2.7	0%	10. COORDINATION

UNSPECIFIED 1.8 M received

1.1 billion
requested (US$)

63%
funded

Requirements by Sectors (in million US$)

| Sector	total requirements	Percent coverage
Food Security and Livelihoods	456	81%
Protection	114	18%
Water, Sanitation and Hygiene	102	36%
Education	94	51%
Health	80	58%
Coordination and Common Services	63	75%
Nutrition	53	55%
Returns and Early Reintegration	44	16%
Non Food Items and Emergency Shelter	38	26%
Basic Infrastructure	36	5%
MineAction	33	15%

funded
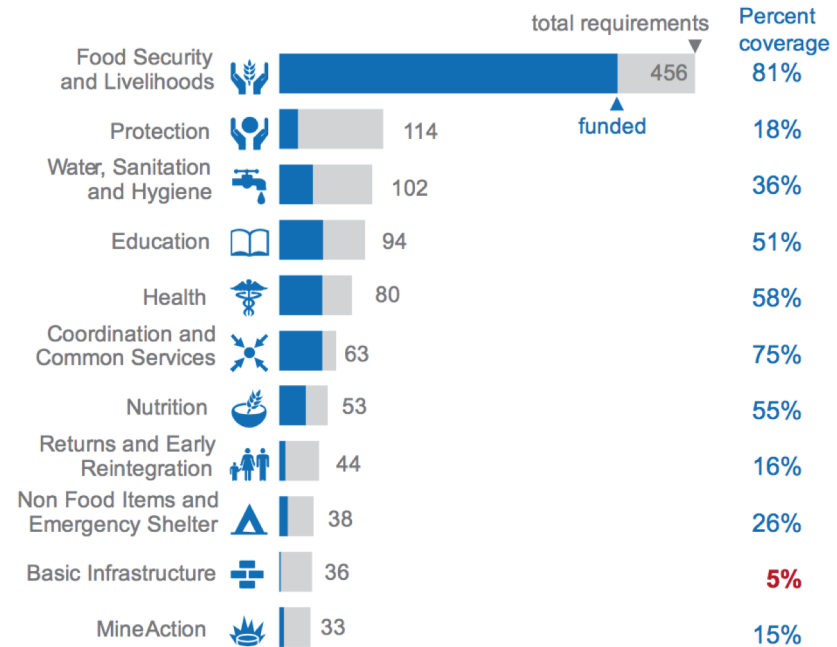
Best Practices for pie charts
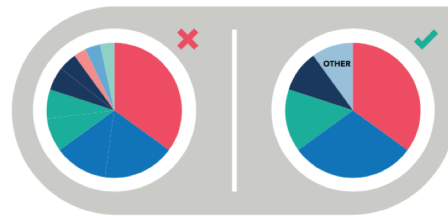
VISUALIZE NO MORE THAN 5 CATEGORIES
It is difficult to differentiate between small values; depicting too many slices decreases the impact of the visualization. If needed, you can group smaller values into an "other" or "miscellaneous" category, but make sure it does not hide interesting or significant information.
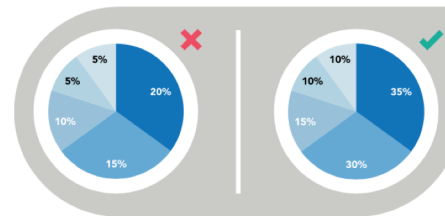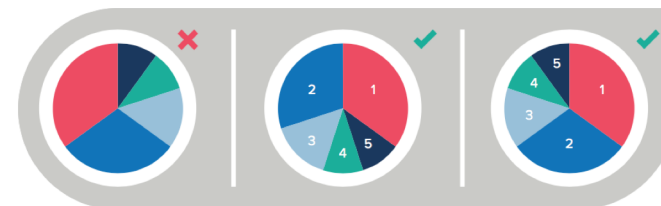
MAKE SURE ALL DATA ADDS UP TO 100%
Verify that values total 100% and that pie slices are sized proportionate to their corresponding value.
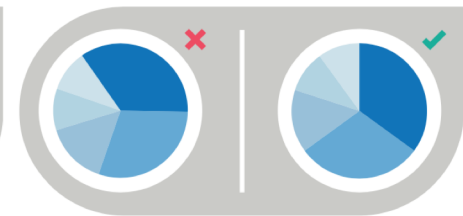
START AT 12 O'CLOCK
Always start at 12 o'clock with the largest segment clockwise.

ORDER SLICES CORRECTLY
There are two ways to order sections, both of which are meant to aid comprehension:

OPTION 1
Place the largest section at 12 o'clock, going clockwise. Place the second largest section at 12 o'clock, going counterclockwise. The remaining sections can be placed below, continuing

OPTION 2
Start the largest section at 12 o'clock, going clockwise. Place remaining sections in descending order, going clockwise..

THANK YOU

International Federation of Red Cross and Red Crescent Societies
Fédération internationale des Sociétés de la Croix-Rouge et du Croissant-Rouge
Federación Internacional de Sociedades de la Cruz Roja y de la Media Luna Roja
الاتحاد الدولي لجمعيات الصليب الأحمر والهلال الأحمر

DATA PLAYBOOK: SLIDEDECK 12