



David W. Covington, LPC, MBA
CEO & President, RI International

Beyond Inpatient

The Crisis Now Continuum System

CRISIS HEALTH RECOVERY CONSULTING



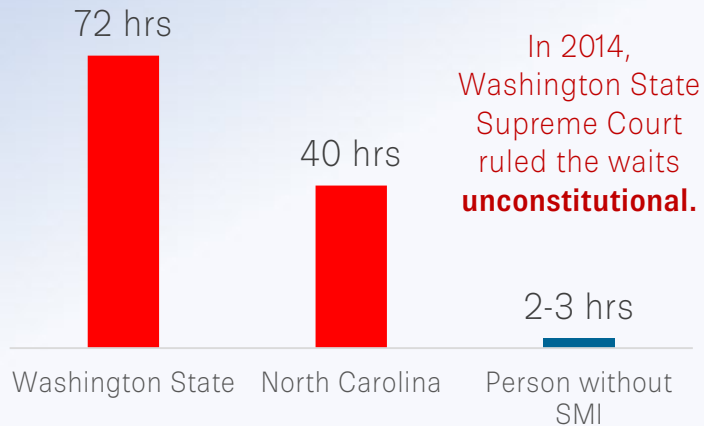
The background of the image is a wide-angle shot of a large, open space. The floor is made of large, light-colored square tiles that recede into the distance, creating a strong sense of perspective. Above the floor, there is a clear blue sky filled with soft, white, fluffy clouds. The overall atmosphere is bright and airy.

The Need For Better Crisis Care

Disastrous Access to Care Wastes Resources



Psychiatric Boarding: Long Hospital ED Waits



Law Enforcement: Impact on Public Safety

One study found that **1 in 10 calls** for service involved a person with a serious mental illness

In Madison, Wisconsin, law enforcement found that behavioral health calls for service take **twice as long to resolve** (3 hours versus 1.5 hours on average)

Psychiatric Boarding

Seattle Times (2013):

Lack of space forced those involuntarily detained to wait for treatment, on average three days, in chaotic hospital EDs and ill-equipped medical rooms. Frequently parked in hallways or bound to beds, usually given medication but no psychiatric care.

Carolinas Healthcare benchmarked boarding times in their EDs in 2015 but has since reduced wait times 50% from the figure cited.

Law Enforcement

Chappell, D (2013) *Policing and the Mentally Ill: International Perspectives*. Boca Rotan, FL: CRC Press)

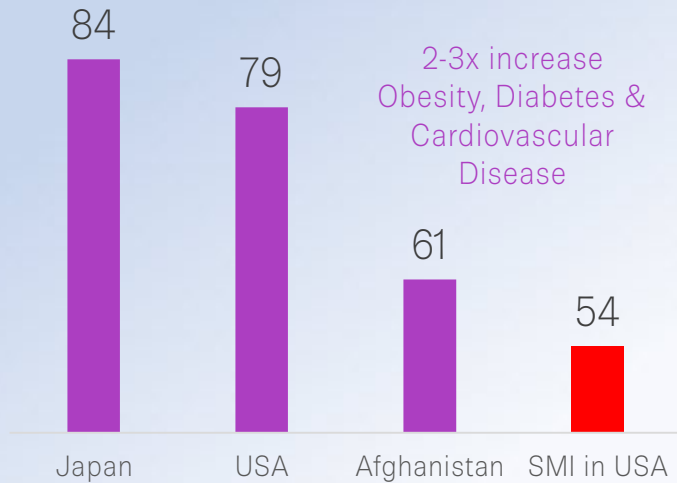
Madison, Wisconsin data cited by Ruby Qazilbash, Associate Deputy Director, Bureau of Justice Assistance, August 31, 2017 ISMICC Federal Committee



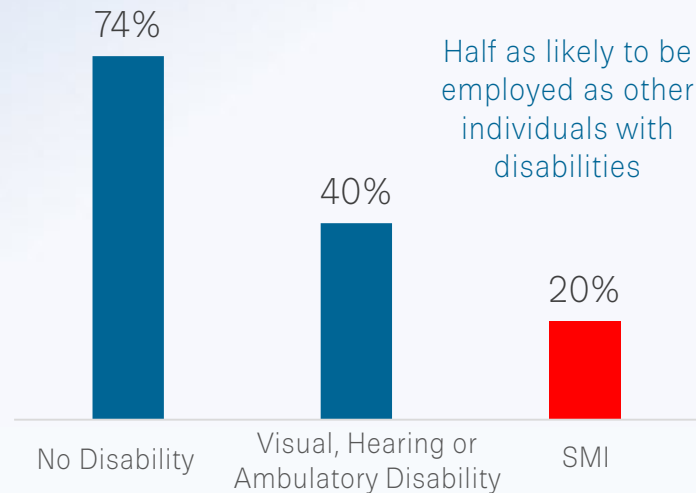
What are the Current Real Outcomes?



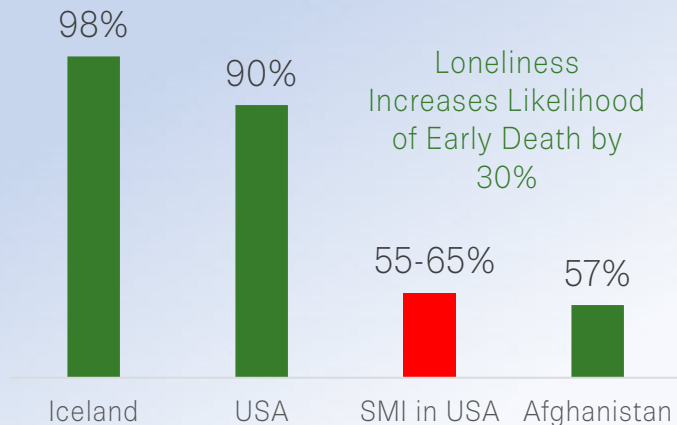
Health: Avg Life Span



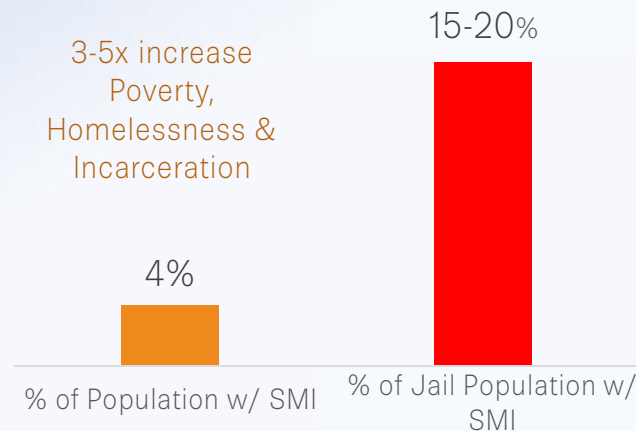
Finance: Employment



Community: Friends & Social Supports



Autonomy: Making Own Life Decisions



Health

Life expectancy data WHO and NASMHPD, and Disease Prevalence from World Psychiatry

Finance

Employment data from American Community Survey and NAMI SMI

Community

Nation data from World Happiness Report ("Someone to rely on in times of trouble"). SMI data from AZ Health Risk Assessments ("Someone to talk to about problems" and "Someone invites me out for dinner/activity.")

Autonomy

"Prevalence of SMI Among Jail Inmates" and "Poverty and Severe Psychiatric Disorder"

Life for the nearly 10 million people with SMI in the US has comparable outcomes to *the average person in Afghanistan.*

Thousands Die Alone and In Despair

○ **Suicide Rate:** Hazard Ratio vs. General Population

People with SMI



6-12x

White Males 65+



3-4x

Veterans/Military



2-4x

**Alaskan Natives/
American Indians**



2-4x

LGBT Youth



2-3x

○ **Unspeakable Family Pain:** Tragic Outcomes

In 2013, Virginia State Senator Creigh Deeds told CNN he was alive to work for change in mental health. A week earlier, he was stabbed multiple times by his son, who then died of suicide. This happened hours after a mental health evaluation suggested "Gus" needed more intensive services. Tragically, he was released before the appropriate care could be found.



Suicide Risk

According to the American Association of Suicidology, the [2014 suicide rate](#) for males 65+ was 32 per 100,000, but 51 per 100k for those over 85.

In 2010, [USA Today](#) reported the US Army suicide rate at 22 per 100,000 but the [Fort Hood](#) rate was 47 per 100,000.

The Suicide Prevention Resource Center (SPRC) reported Alaskan Native/American Indian males ages 15 to 24 had the highest rate at 28 per 100k. In 2010, [USA Today](#) reported those AN living in Alaska had a suicide rate of 42 per 100,000.

The SPRC says little can be said with certainty about death rates for LGBT youth due to limited data collection. [Other research](#) suggests two to three times the national rate.

In 2008, a [UK study by Osborn](#) found the hazard ratio for individuals with SMI, including Schizophrenia, to be nearly 13 times the general population. In 2010, [King's Health Partners](#) found the risk to be 12 times greater during the first year following diagnosis of a serious mental illness.

Violence

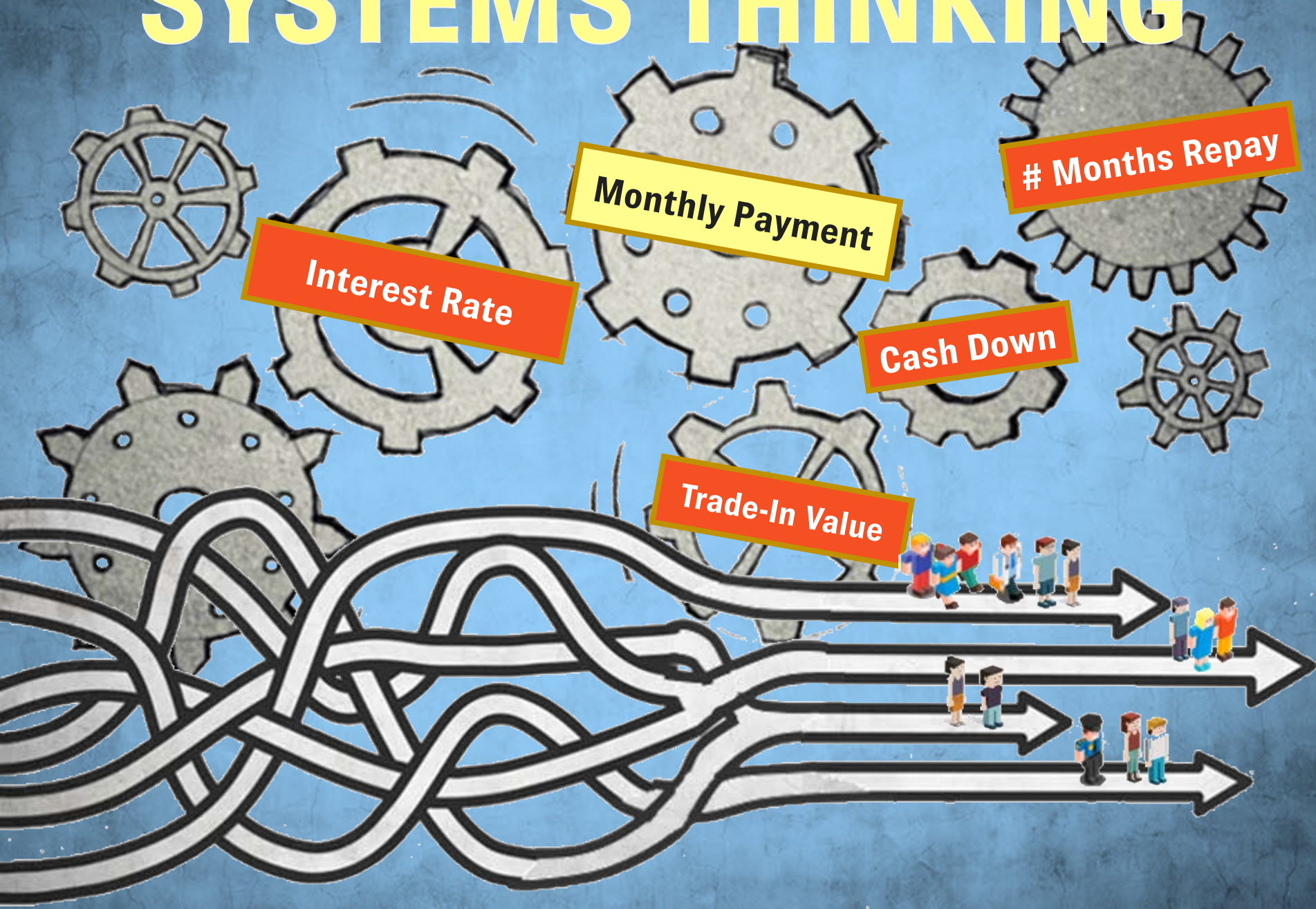
While rare, incidents of individuals with SMI who were untreated being involved in the tragic deaths of others have garnered the attention of our national dialogue.



The Skills

For Optimizing a Crisis System

SYSTEMS THINKING



SUPPLY CHAIN MANAGEMENT

New Year's Day, you are taking inventory on a key product and you have the following number remaining on the shelf from December. **Which is best?**

Scenario A

1m

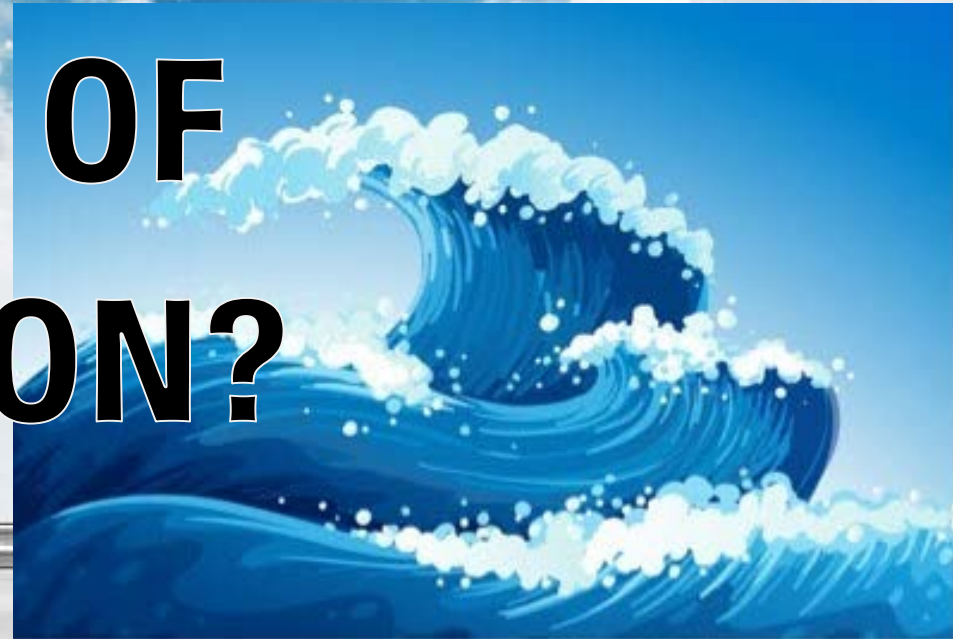
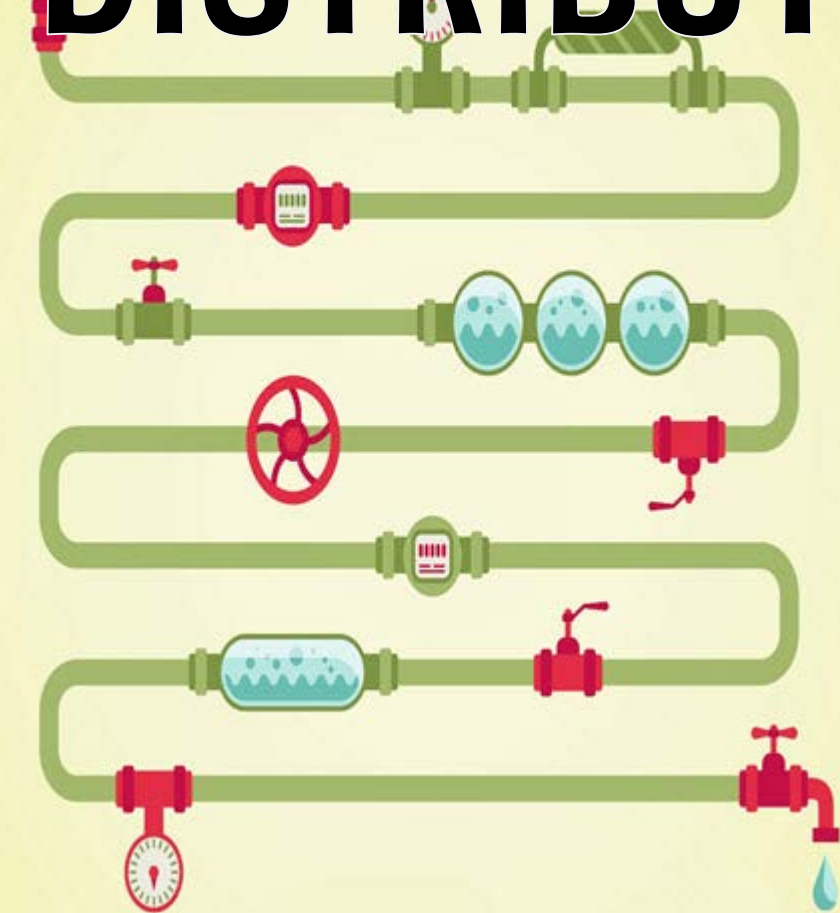
Scenario B

1

Scenario C

0

WHAT KIND OF DISTRIBUTION?



If every 15 minutes
between 10am and 5pm
were a crisis call wave...

Highest Wave:

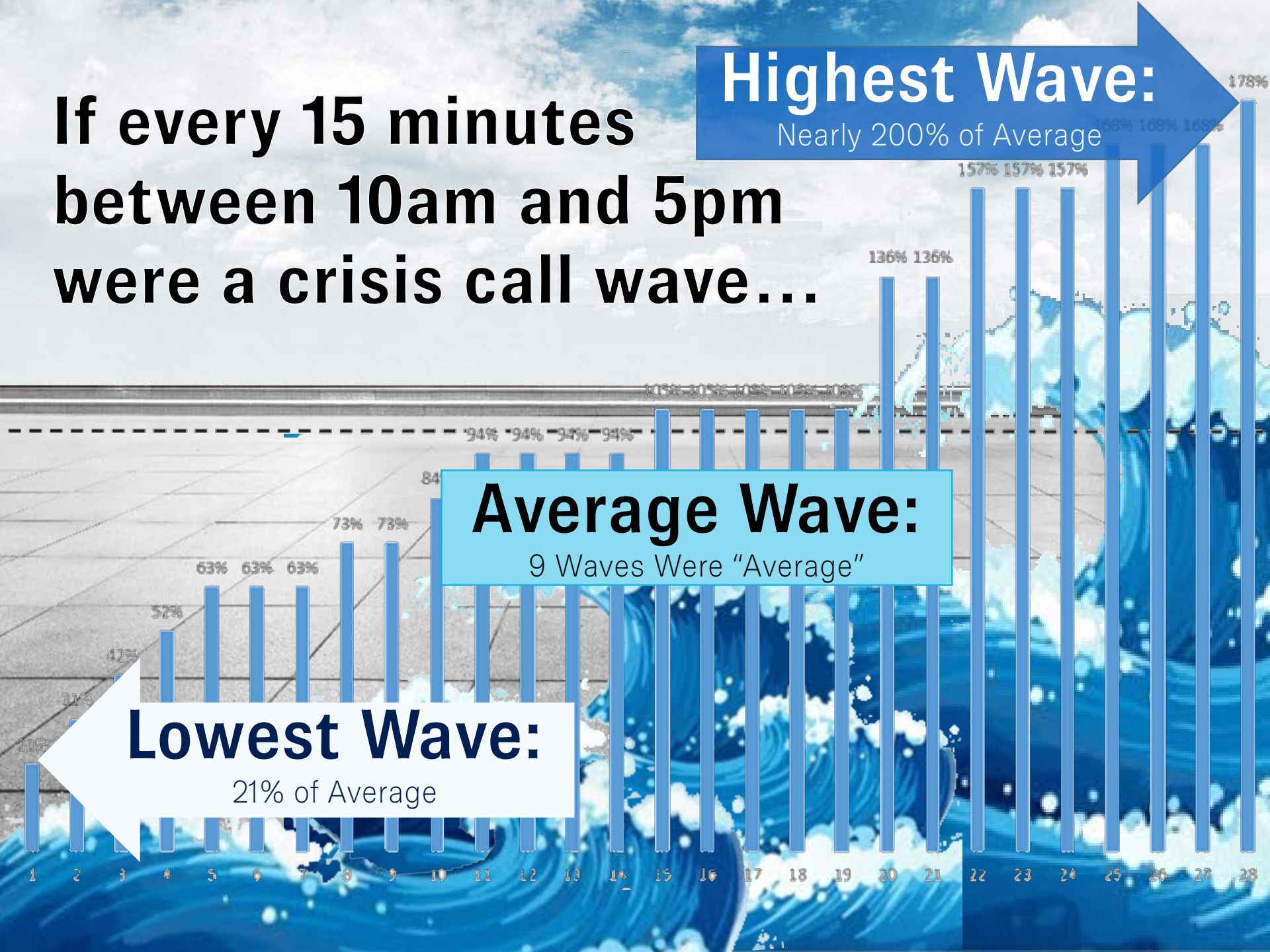
Nearly 200% of Average

Average Wave:

9 Waves Were "Average"

Lowest Wave:

21% of Average



FORECASTING CRISIS NEED

$$P_w = \frac{\left(\frac{A^N}{N!}\right) \left(\frac{N}{N-A}\right)}{\sum_{i=0}^{N-1} \left(\frac{A^i}{i!}\right) + \left(\frac{A^N}{N!}\right) \left(\frac{N}{N-A}\right)}$$

Agents Needed

56

Erlang C Calculator

OFF

AC

MRC

M-

M+

÷

Calls/
Hour

1000

Service
Level

80%

Avg Call
Duration

180

Avg Wait
Time

20

Compute

7

8

9

×

4

5

6

-

1

2

3

+

0

.

=

3 Models

Let's Build

Model #1

Traditional
State Hospital
Beds

Model #2

Crisis Now
Continuum

Model #3

Crisis Now
System



CRISIS NOW
Transforming Crisis Services

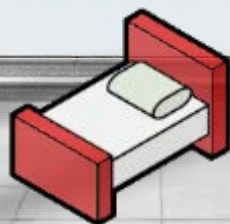
Action Alliance
NSPL Lifeline
NASMHPD
National Council
Arizona AHCCCS

MATH

Traditional Public Inpatient

In the **First Model**, implement the 50 public sector psychiatric inpatient beds per 100,000 population necessary to meet community crisis needs.

50



/100,000

50



/100,000

The consensus opinion of an expert panel on psychiatric care estimated the need as around 50 public psychiatric beds per 100,000 population (*Treatment Advocacy Center*).

BACKGROUND

Although most people with a diagnosed mental illness never require hospitalization, and serious conditions can be successfully treated in the community, inpatient psychiatric hospitalization remains an essential component of a complete mental healthcare continuum. Inpatient psychiatric hospitalization is often accompanied by potentially life-saving medical care. Stephen Allison and a team of experts from the American Psychiatric Association & New Zealand and a team of experts from the American Psychiatric Association & New Zealand have conducted a comprehensive review of the literature and found that the current standard of care for people with mental illness is inadequate. They argue that the current standard of care is inadequate because it does not provide the necessary level of care for people with mental illness. They argue that the current standard of care is inadequate because it does not provide the necessary level of care for people with mental illness. They argue that the current standard of care is inadequate because it does not provide the necessary level of care for people with mental illness.

www.TreatmentAdvocacyCenter.org/
released-relapsed-rehospitalized

The Treatment Advocacy Center

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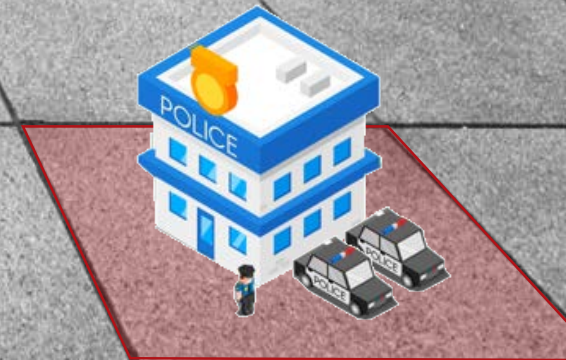
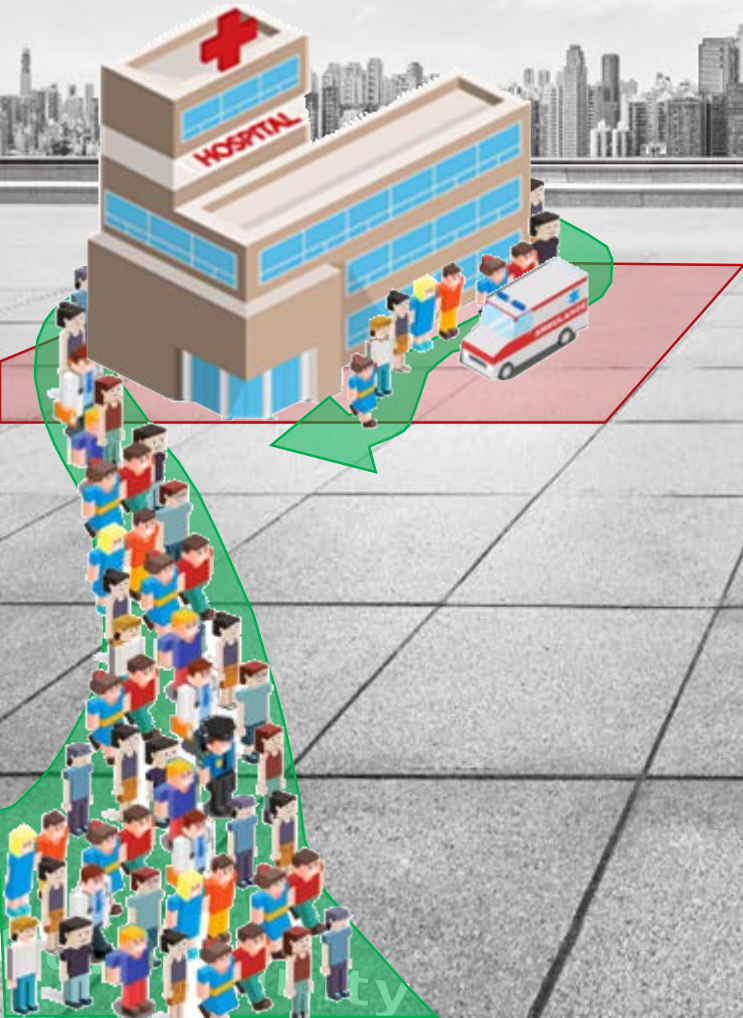
Pop. 4m



Community

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Core Community Crisis Demand/Flow



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Choke Point



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CALIFORNIA
HOSPITAL
ASSOCIATION

*Providing Leadership in
Health Policy and Advocacy*

April 2015

TO: Whom it May Concern

FROM: Sheree Kruckenberg, Vice President Behavioral Health

SUBJECT: Access to Timely Psychiatric Emergency Services

California, like the nation, is struggling to ensure individuals with a suspected/potential mental illness are able to receive a timely psychiatric evaluation and access to an appropriate level of treatment, if needed.

The California Hospital Association (CHA) represents over 400 hospitals. In 2011, these hospitals received over 1.1 million individuals in their emergency departments (EDs) in need of some level of behavioral health intervention. An analysis of emergency department utilization data between 2006 and 2011 verified that the overall use of EDs for behavioral health visits increased 47% during this 5-year time period and the trend data indicate this continues to increase each year.

The vast majority of individuals arriving at a community medical/surgical hospital ED with a behavioral health need do not have a physical health condition that requires an emergency level of care intervention. This holds true for psychiatric emergency medical conditions as well. Unfortunately, however, there are often no alternative behavioral treatment settings available on a 24/7 basis. This forces hospital emergency departments, including those without behavioral health clinicians, to become the only available resource in many communities.

The increasing dependence on medical/surgical hospital EDs to provide behavioral evaluation and treatment is not appropriate, not safe, and not an efficient use of dwindling community emergency resources. This includes not only hospitals, but emergency transportation providers and law enforcement. More importantly, it impacts the patient, the patient's family, other patients and their families, and of course the hospital staff.

In a few California communities, the patient's family, other patients and their families, and of course the hospital staff.

The increasing dependence on medical/surgical hospital EDs to provide behavioral evaluation and treatment is not appropriate, not safe, and not an efficient use of dwindling community emergency resources. This includes not only hospitals, but emergency transportation providers and law enforcement. More importantly, it impacts the patient, the patient's family, other patients and their families, and of course the hospital staff.

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Dimensions

Risk of Harm

Functioning

Co-Morbidity

Environment

Treatment

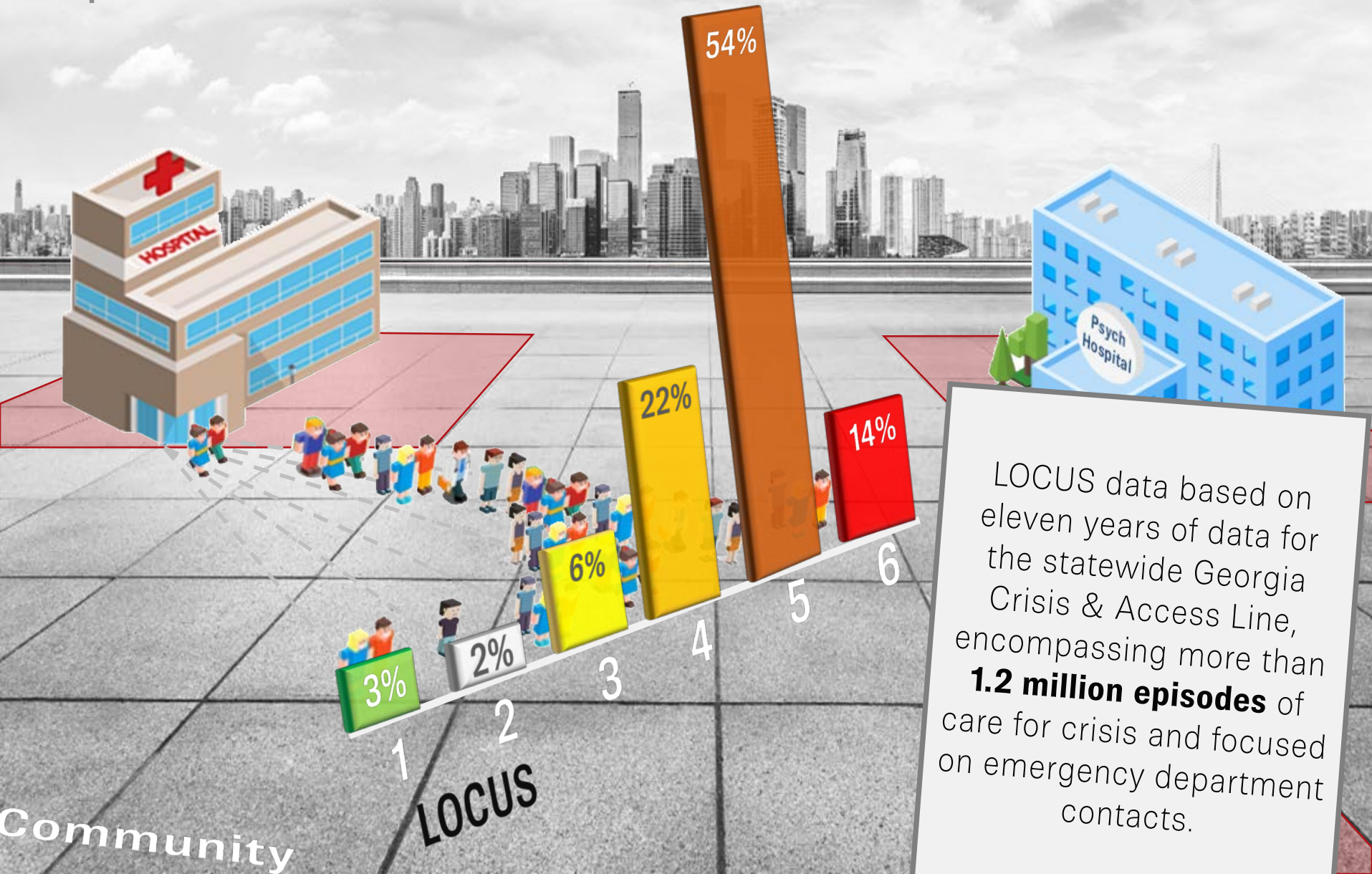
History

Engagement



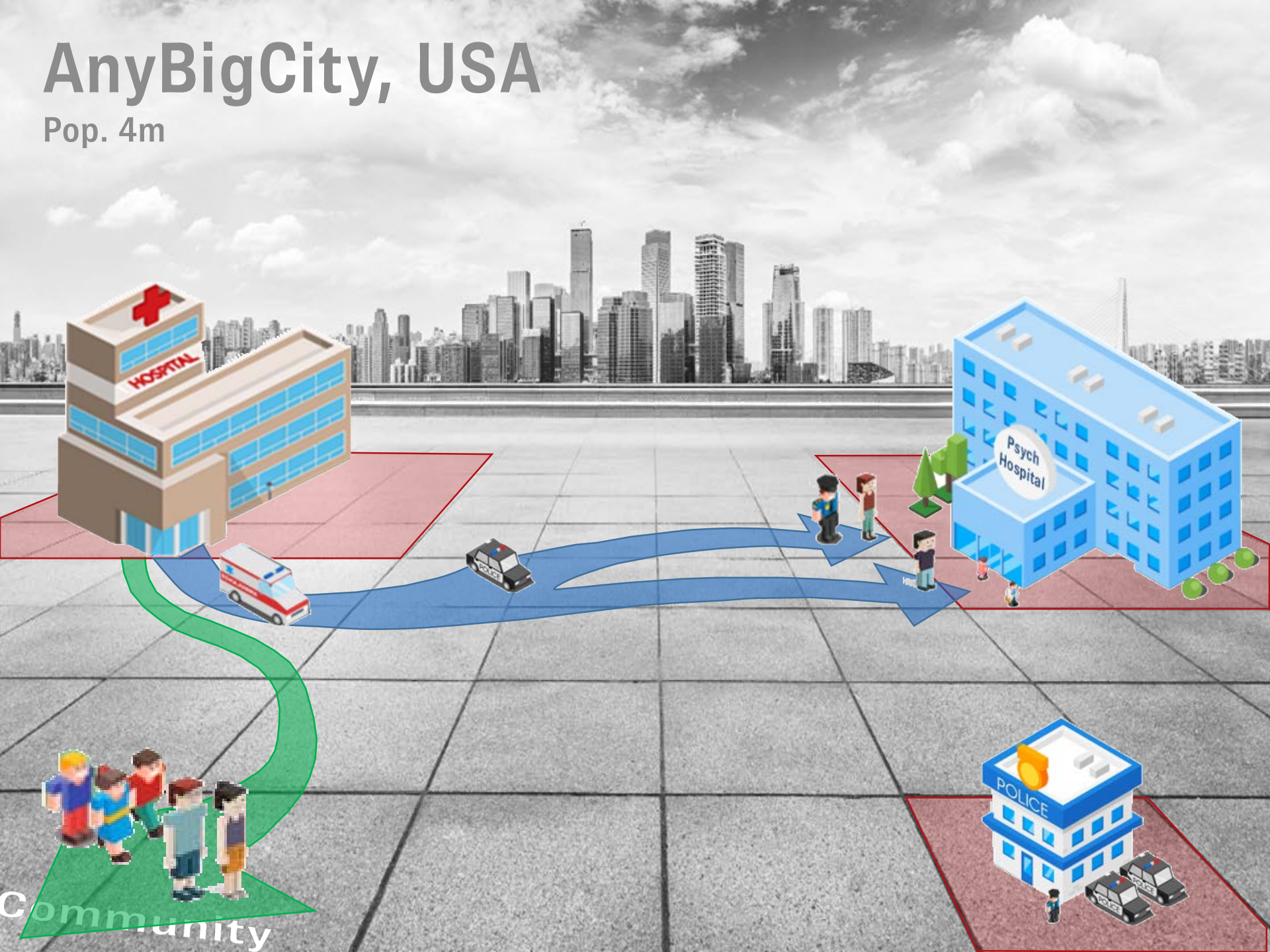
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Pop. 4m



The Impact of Psychiatric Patient Boarding in Emergency Departments

B. A. Nicks* and D. M. Manthey

Abstract

Studies have demonstrated the adverse effects of emergency department (ED) boarding. The authors retrospectively studied all psychiatric and ED (>68,000 adult visits) from January 2007-2008. The main outcomes were ED length of stay (LOS) and associated reimbursement.

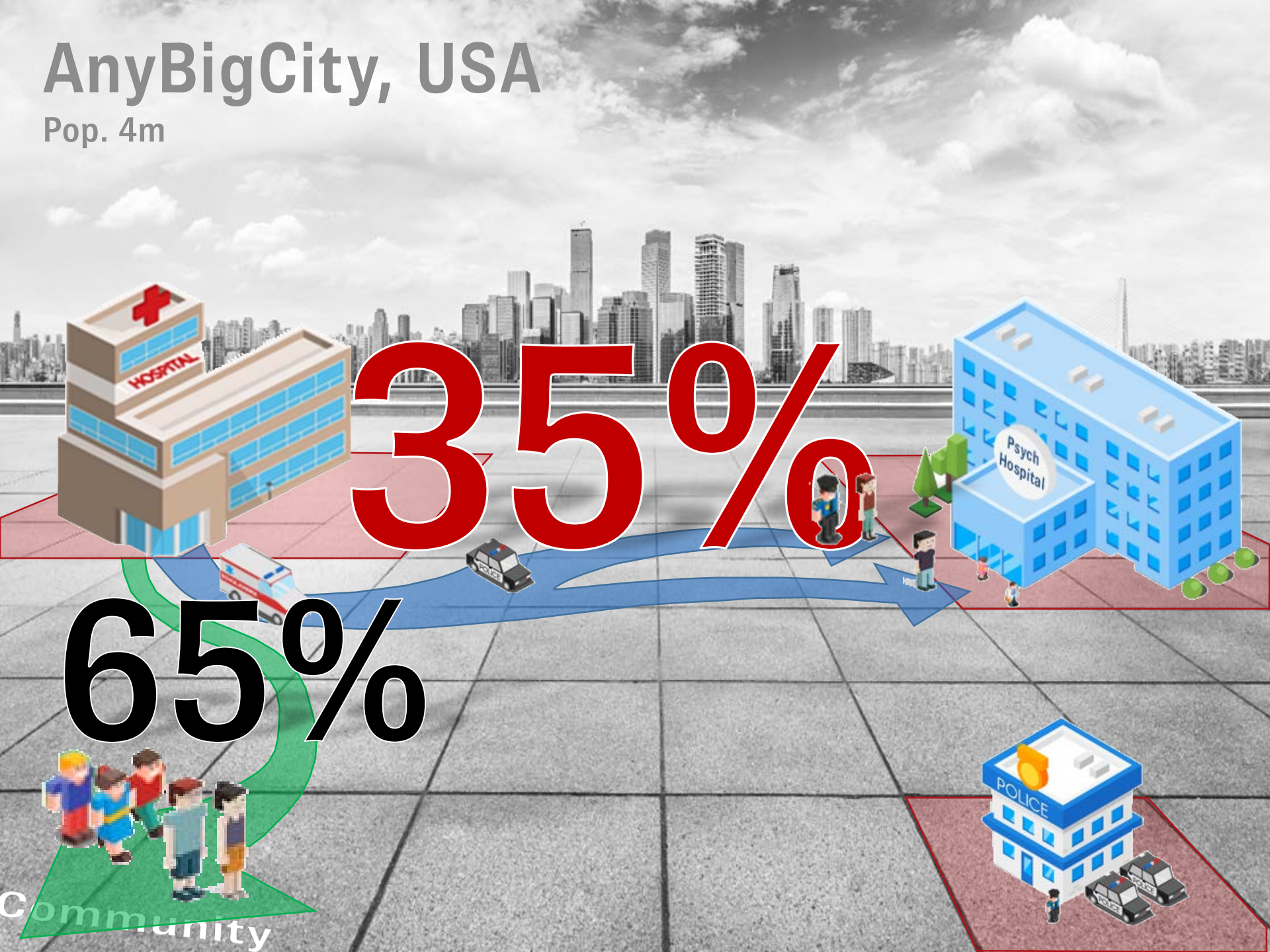
Results. 1,438 patients were consulted to psychiatry with 505 (35.1%) requiring inpatient psychiatric care management. The mean psychiatric patient age was 42.5 years (SD 13.1 years), with 2.7 times more women than men. ED LOS was significantly longer for psychiatric admissions (1089 min, CI (1039–1140) versus 340 min, CI (304–375); $P < 0.001$) when compared to non-psychiatric admissions. The financial impact of psychiatric boarding accounted for a direct loss of (\$1,198) compared to non-psychiatric admissions. Factoring the loss of bed turnover for waiting patients and opportunity cost due to loss of those patients, psychiatric patient boarding cost the department \$2,264 per patient.

Conclusions. Psychiatric patients awaiting inpatient placement, preventing 2.2 bed turnovers (additional patient revenue).



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First Published August 1, 2002 | Research Article

Article information

Objectives: The aims of this study were to compare the effectiveness of community-based psychiatric emergency services with hospital-based services in the clinical management of patients with mental health problems.

mobile community-based psychiatric emergency service, and to identify the clinical characteristics of patients admitted to hospital.

Methods: A retrospective, quasi-experimental design was used with a 3-month cohort of all mobile emergency service contacts presenting at the mobile and hospital-based sites. The Health to-face emergency service contacts and details of the outcome following initial assessment were of the Nation Outcome Scales and details of the outcome following initial assessment were completed for all contacts, and each group was compared for differences in clinical characteristics and outcome.

Results: Hospital-based emergency service contacts were found to be completed for all contacts. Characteristics and outcome characteristics of those who were likely to be admitted to a psychiatric inpatient unit when compared with those using a community-based emergency service, regardless of their clinical characteristics. Those with mental health disorders such as schizophrenia and major affective disorder, and community-based emergency services such as self-injury, hallucinations and delusions, aggression, non-accidental self-harm, and living conditions were more likely to be admitted to hospital. The results suggest that the use of community-based emergency services may be associated with better outcomes in decisions to admit to hospital.

Conclusions. ... specialized multidisciplinary, ... the least restrictive environment and ... unity

Roger L. Scott, L.C.S.W.

Results: Fifty-five percent of the emergencies handled by the mobile crisis team were managed without psychiatric hospitalization of the person in crisis, compared with 28 percent of the emergencies handled by regular police intervention, a statistically significant difference.

emergencies handled by the mobile crisis program with 29 percent of the emergency hospitalization of the person in crisis, compared with 23 percent for persons handled by regular police intervention, a statistically significant difference. The difference in arrest rates for persons handled by the two groups was not statistically significant. The average cost per case was 23 percent less for persons served by the mobile crisis team. Both consumers and police officers gave positive ratings to the mobile crisis program. Conclusions: Mobile crisis programs can decrease hospitalization rates for persons in crisis and can provide cost-effective psychiatric emergency services that are favorably perceived by consumers and police officers. (*Psychiatric Services* 51:1153-1156, 2000)

A national survey of mobile crisis programs conducted in 1993 showed that 39 states had such services (1). The advantages reported for such programs included improved access to treatment for mentally ill persons, the capability to avert a crisis or decrease the need for hospitalization, and reduced costs (2).

atric hospitalization, family burden, and the costs to the criminal justice system by providing professional assessment and crisis intervention to the community.

(6) concluded that mobile police-mental health outreach teams "apparently avoid criminalization of the mentally ill."

This paper

This paper reports on a retrospective study of the impact of a mobile crisis program on psychiatric hospitalization rates and arrest rates of people in crisis. Cost-effectiveness data and consumer and police satisfaction with the program are reported.

The mobile crisis program
The mobile crisis program
County, Cal.

...the DeKalb County, Georgia, is a component of the DeKalb County Community Service, a comprehensive community agency for the county. The county is a metropolitan area of approximately 1.5 million people. The program was established in 1993 as a joint effort between the county's public safety department and the county's public safety department. The program's members of mentally ill persons were actively involved in es-

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The common metric for mobile assessment operated by teams staffed by private psychiatric inpatient is achieving **conversion** rates 75% and greater.

75%
Hospital
Conversion

35%

65%

25%
Hospital
Diversion

Georgia has operated Mobile Crisis Teams in all 159 counties since 2014, generally achieving **diversion** rates 75% and greater.

Inpatient
100%

75%

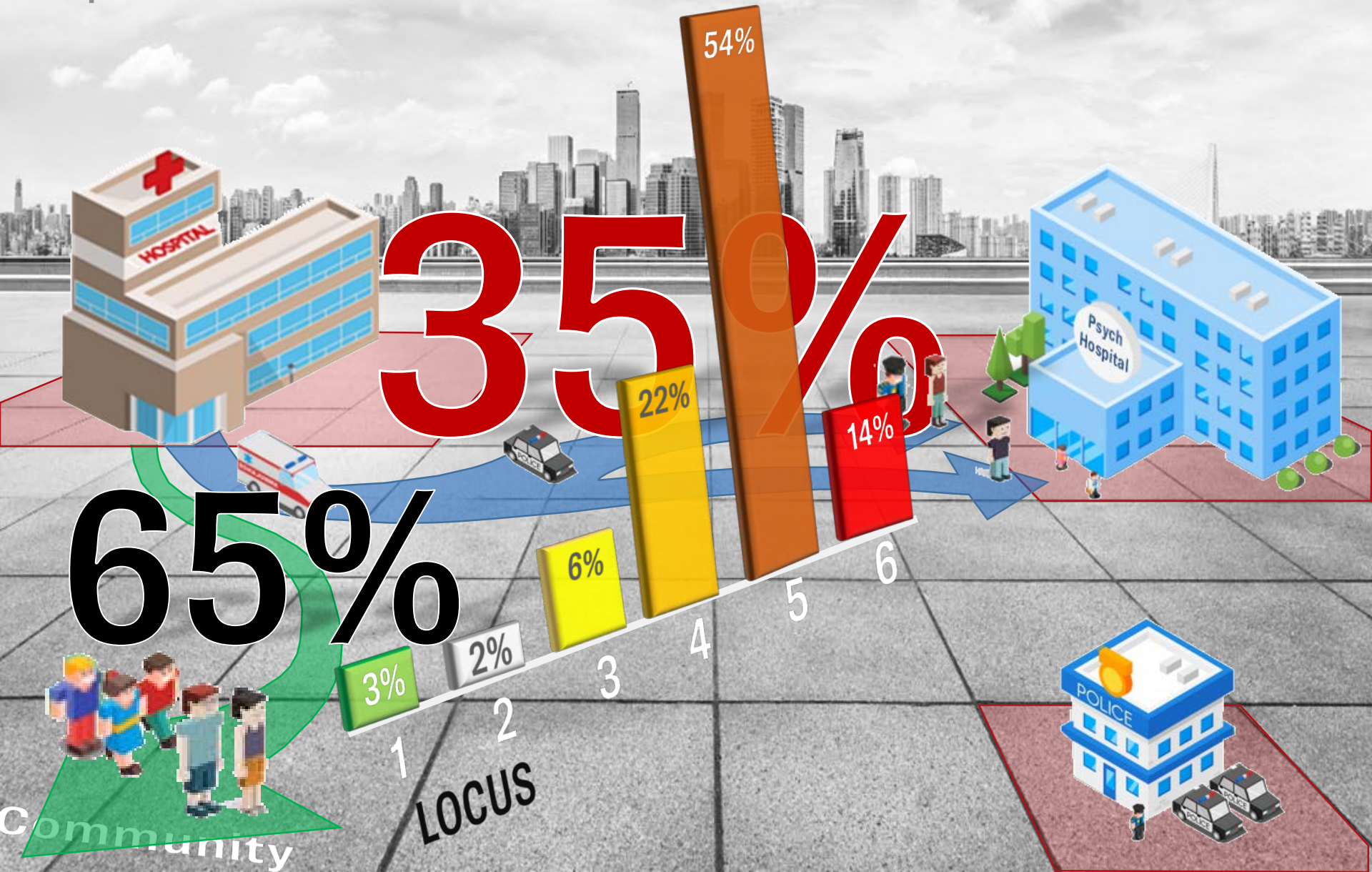
50%

25%

Community

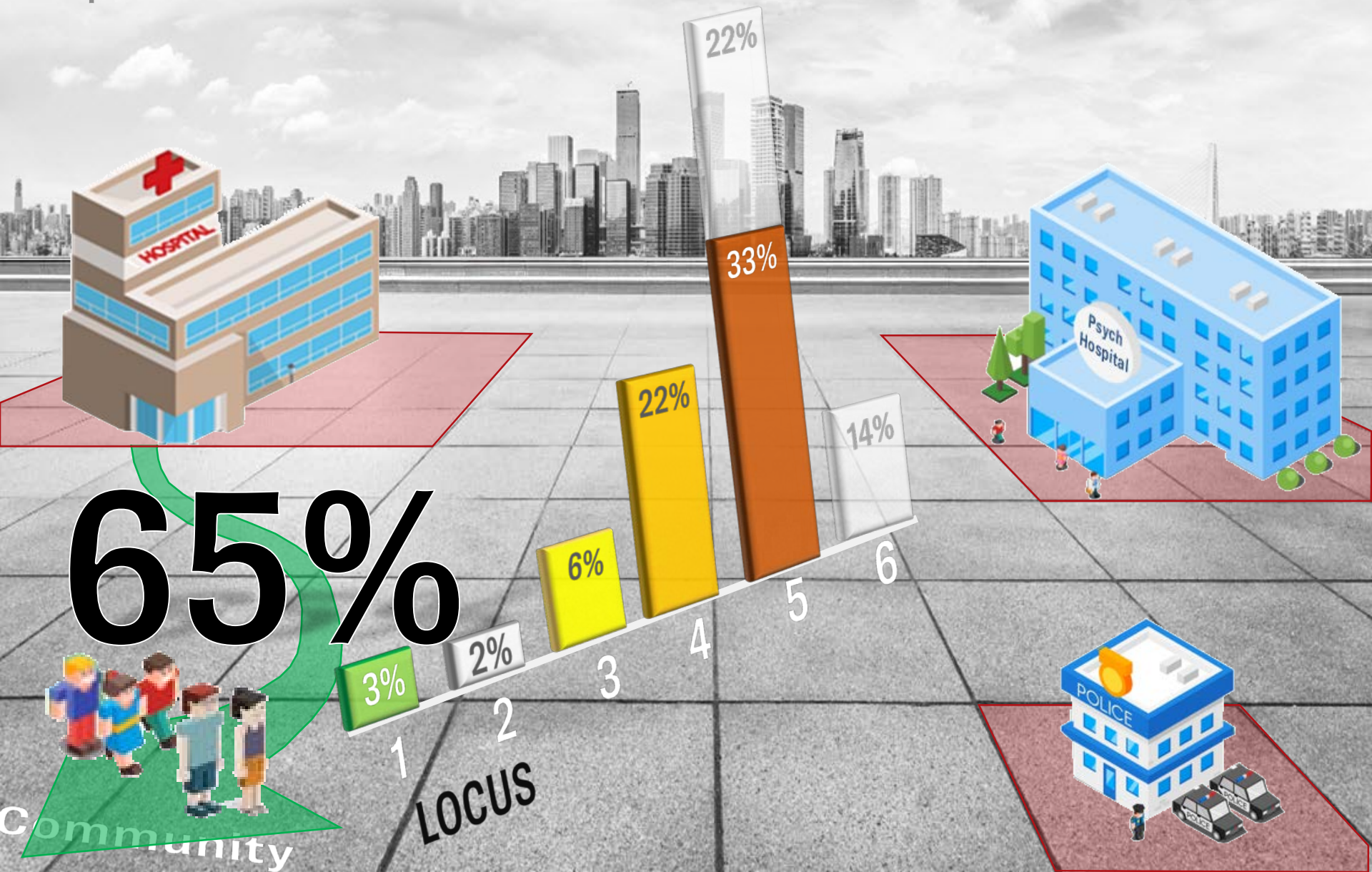
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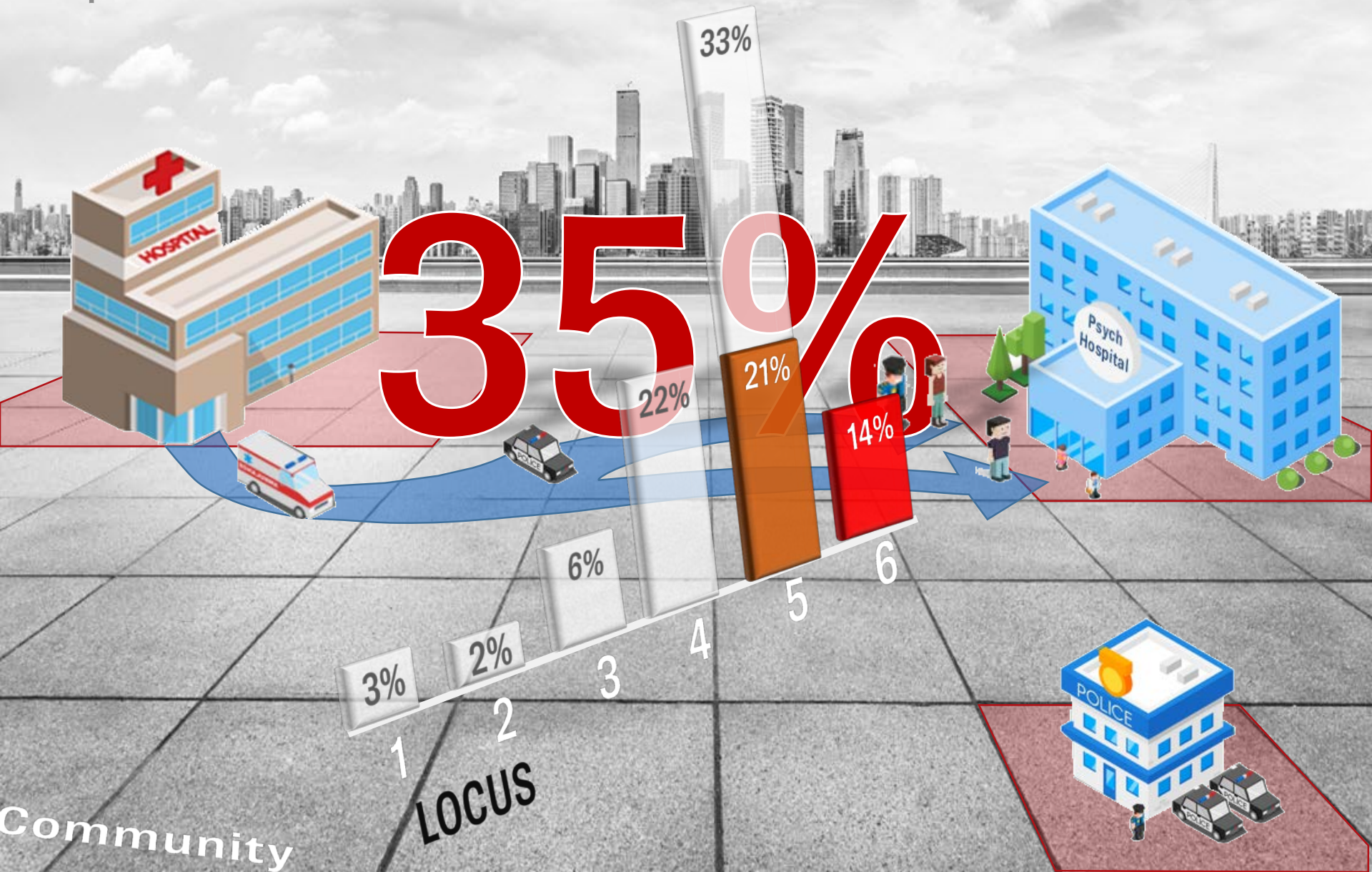
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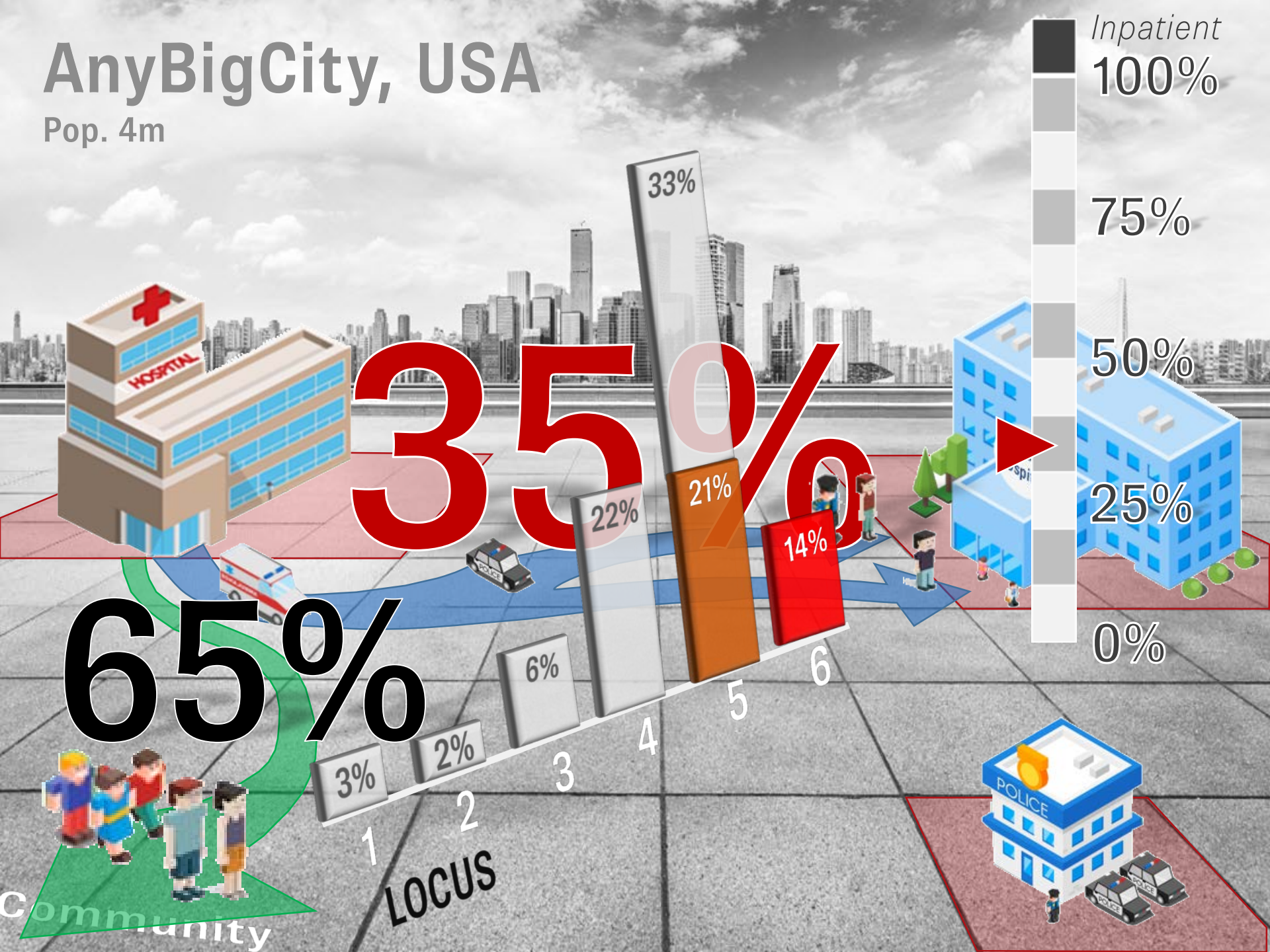
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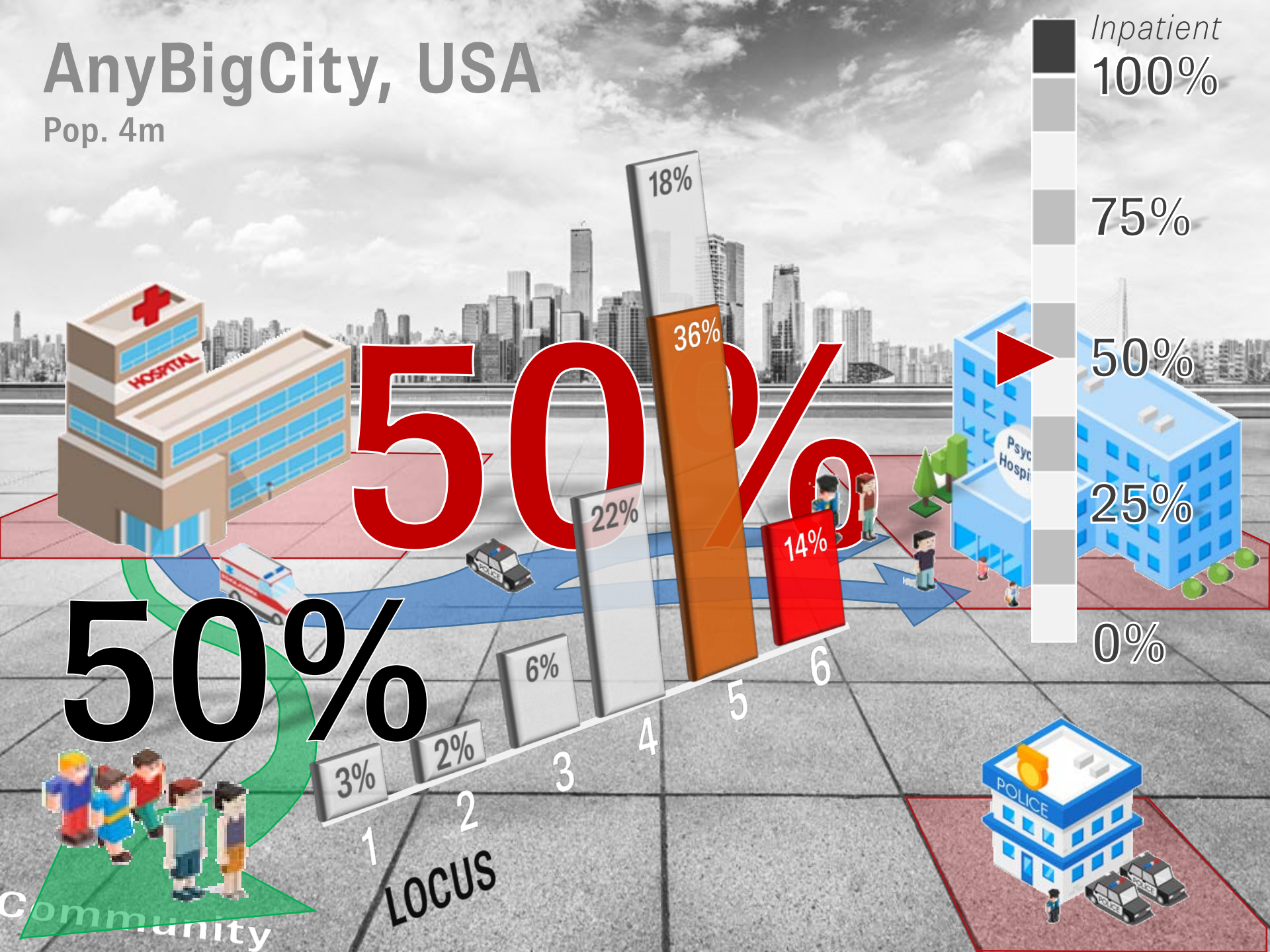
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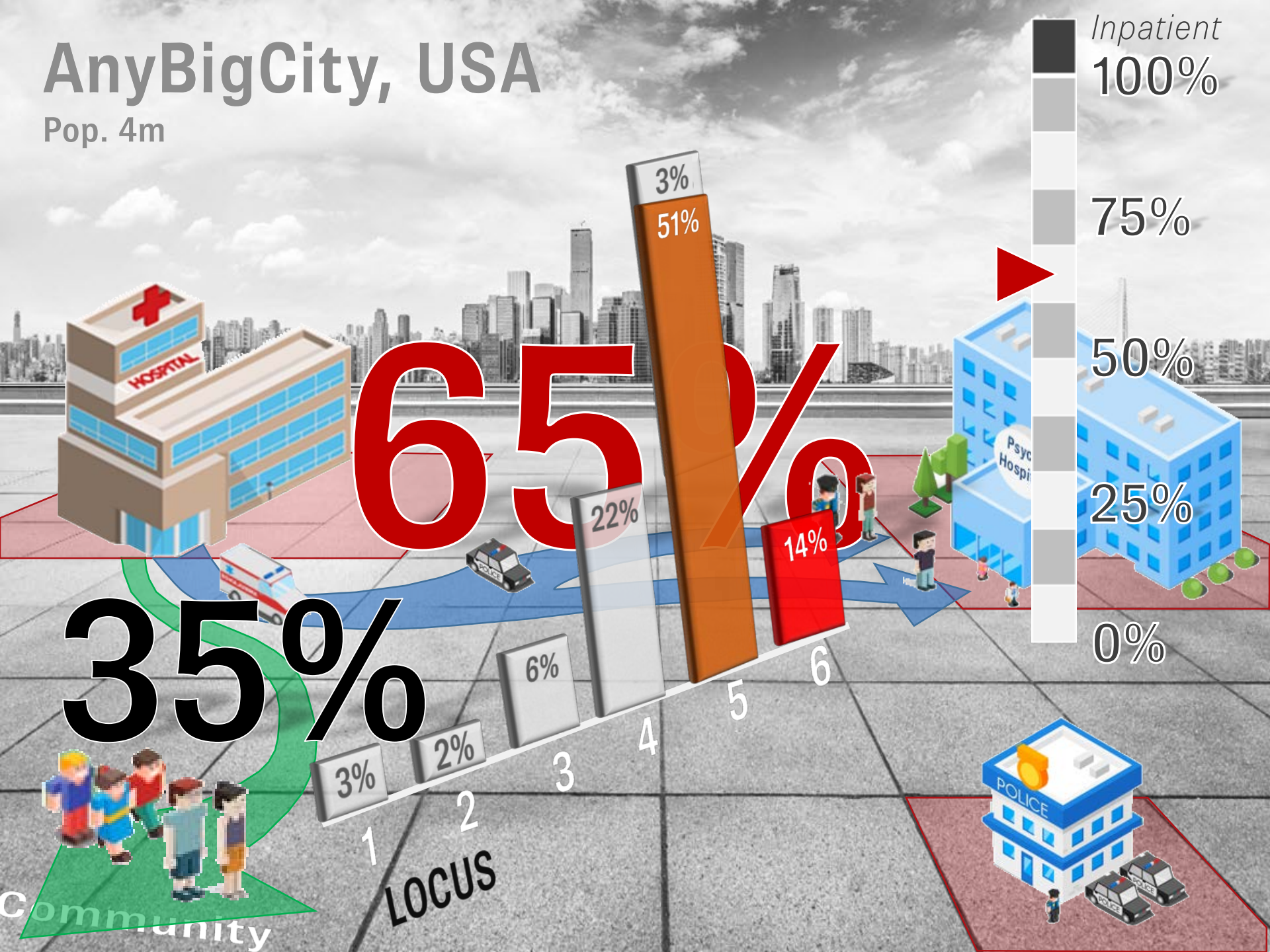
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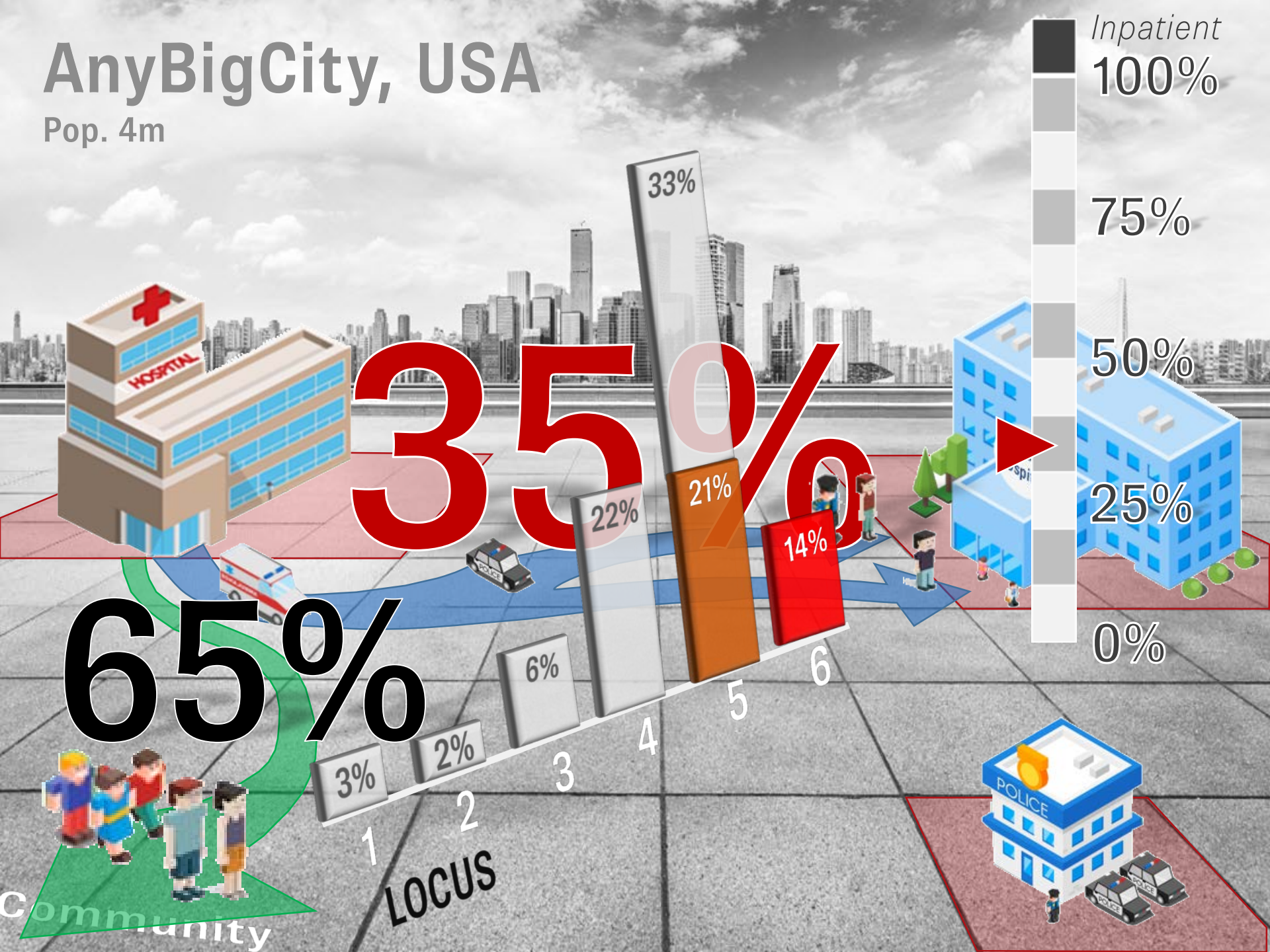
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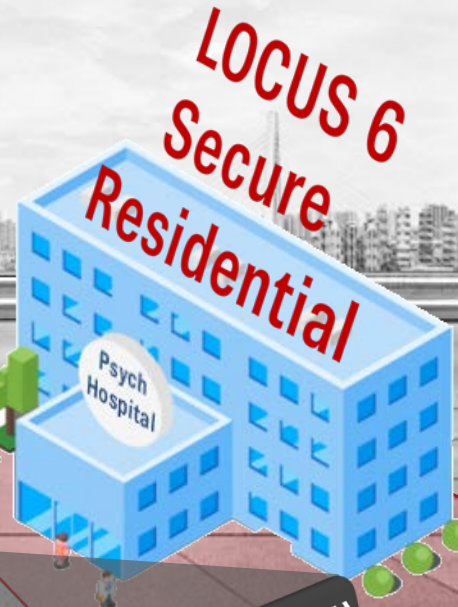


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% of *Core Community*
Crisis Demand/Flow with
LOCUS 3 and higher whose
initial service matches to
assessed clinical need.



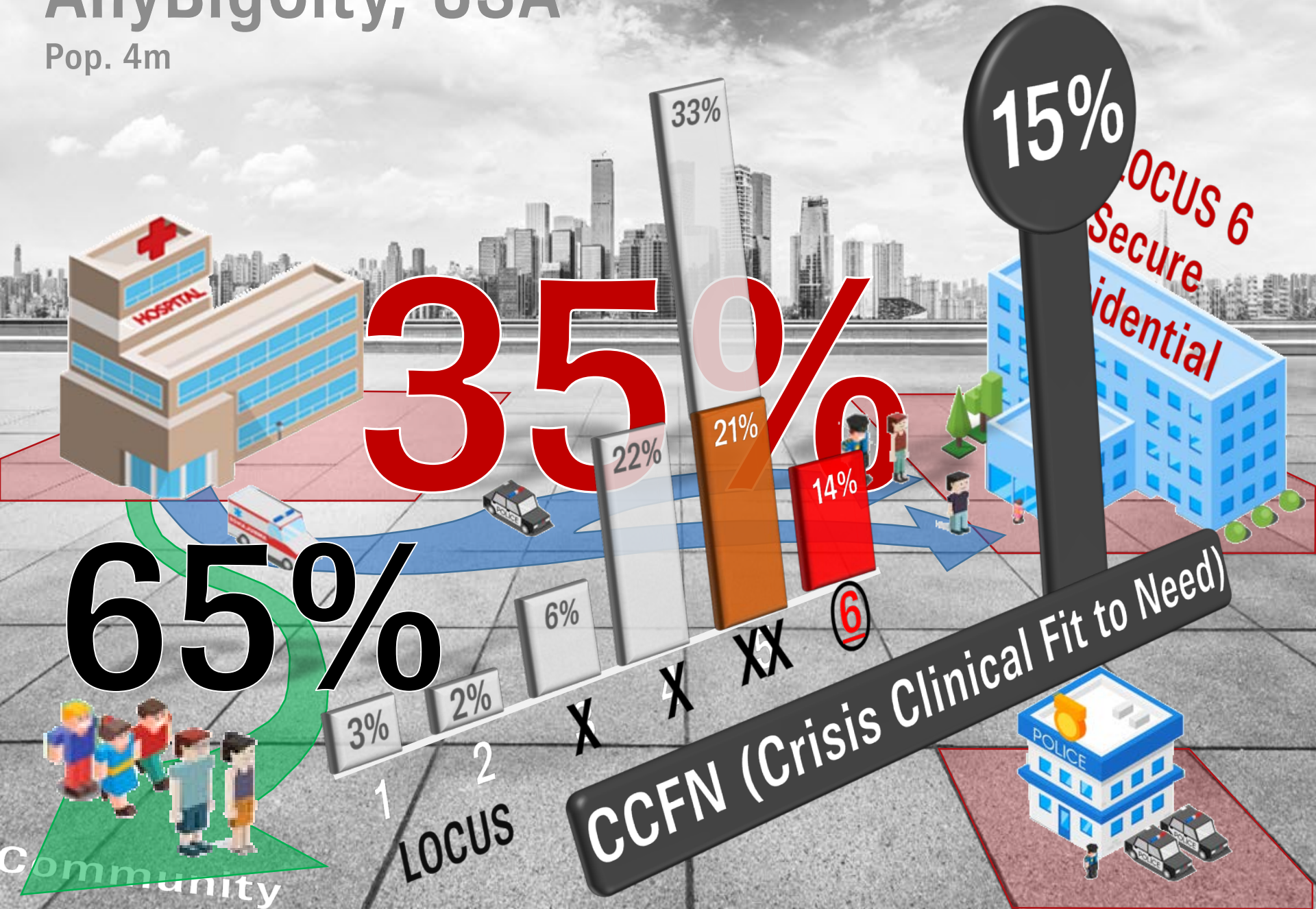
CCFN (Crisis Clinical Fit to Need)



Community

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Pop. 4m



Bed Days Per Month

Unique Persons Served Per Month

57792

2601

Crisis Now Calculator

OFF

AC

MRC

M-

M+

÷

Bed
Capacity

2000

Readmission
Rate

10%

ALOS

20

Occupancy
%

95%

Compute

7

8

9

×

4

5

6

-

1

2

3

+

0

.

=

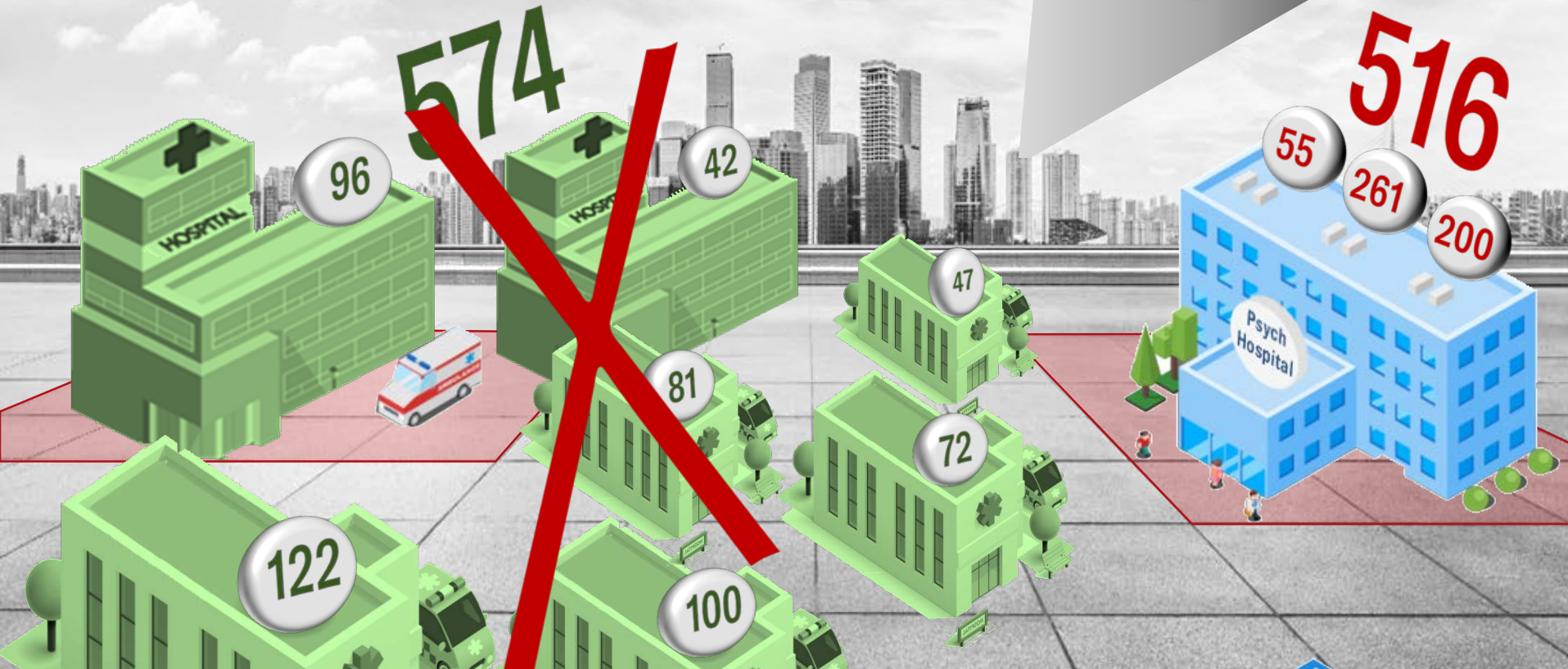
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Pop. 4m

2,000
Beds

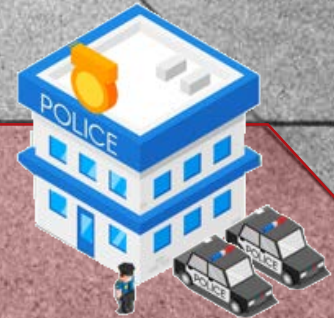
574

516



Psychiatric Bed Supply Need Per Capita **BACKGROUND PAPER**

colleagues write in the September issue of *Australian & New Zealand Journal of Psychiatry*. Psychiatric units in general hospitals and private psychiatric hospitals occasionally admit individuals who are severely ill, but most do not have the resources to provide intensive psychiatric care. Additionally, because individuals with the most severe and chronic mental illnesses experience high rates of unemployment, poverty and homelessness, they often do not have personal resources or health insurance to pay for their hospitalization, which discourages hospitals from admitting them. In 2013, uninsured individuals with schizophrenia or bipolar disorder were less likely than any other psychiatric patient category to receive hospital care.



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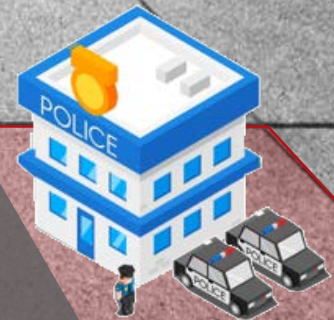
Level of Care	Beds	ALOS	Occupy %	Readmit Rate
State Hospital	55	400	95%	0%
COE	215	12	95%	15%
Med-Psych	46	30	95%	10%
Hospital-Based	200	6	95%	15%
New Capacity	1484	20	95%	10%
AGGREGATE	2000	16	95%	11%

Persons Served Monthly

Comm 3,227

2,000
Beds

2,000



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Pop. 4m

What does it cost per year?



\$79

million

$\$2,264 \text{ Each} \times 34,675$

108,520

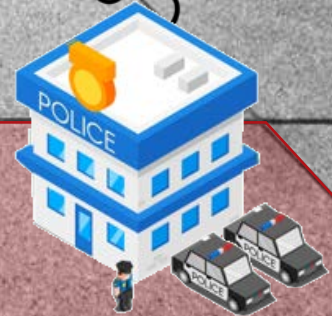
Hours

$3 \text{ Hours} \times 36,173$

\$485

million

$\$700 \times 2,000 \times 365$



Community

Crisis Now Continuum

In the **Second Model**, add the principle services of the Crisis Now Continuum: a Crisis Call Center, Mobile Crisis and Crisis Facility Services

Crisis Call
Center

Mobile
Crisis

Crisis
Facilities

Outpatient



Inpatient

The Crisis Now Continuum



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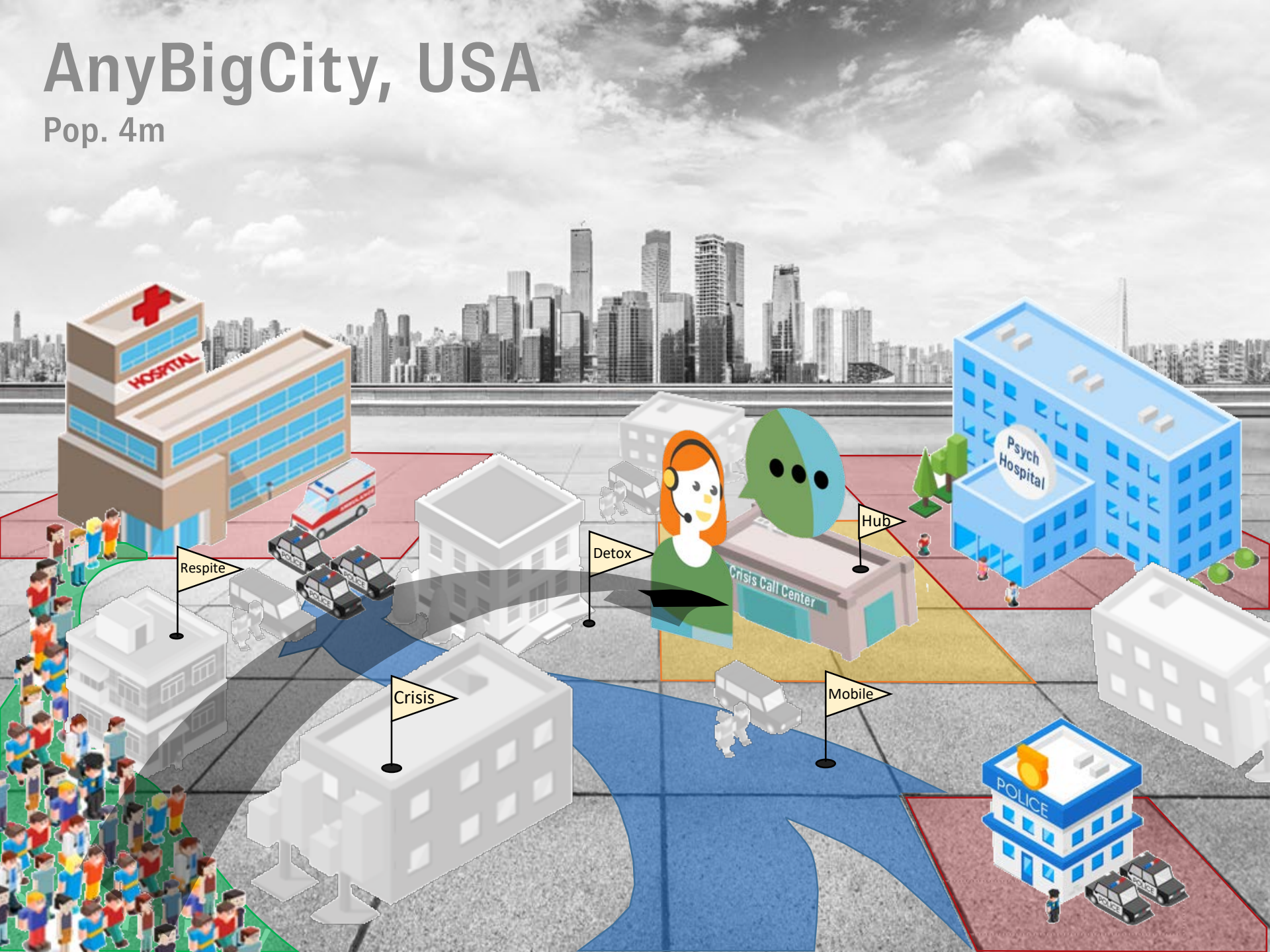
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Community

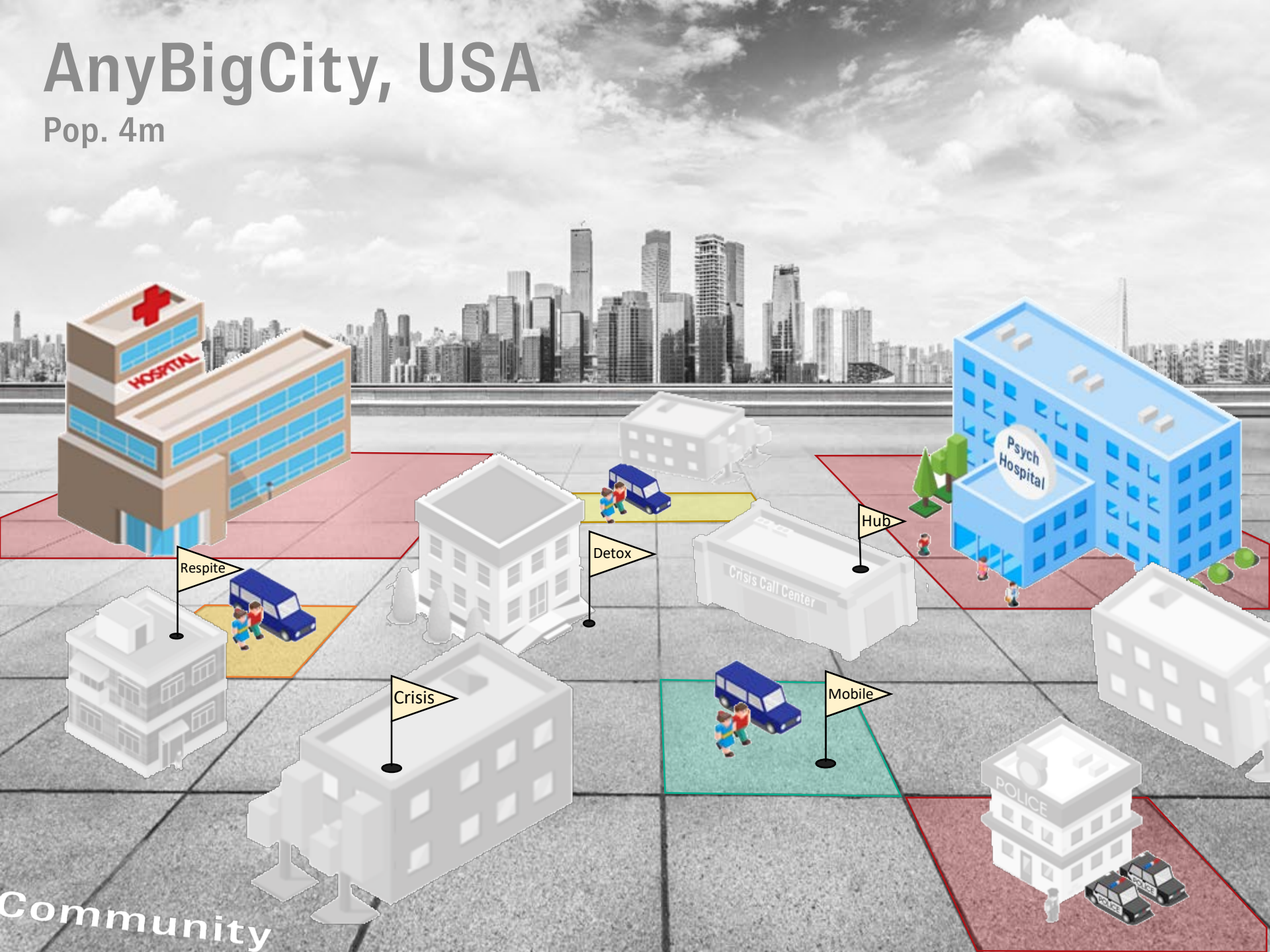
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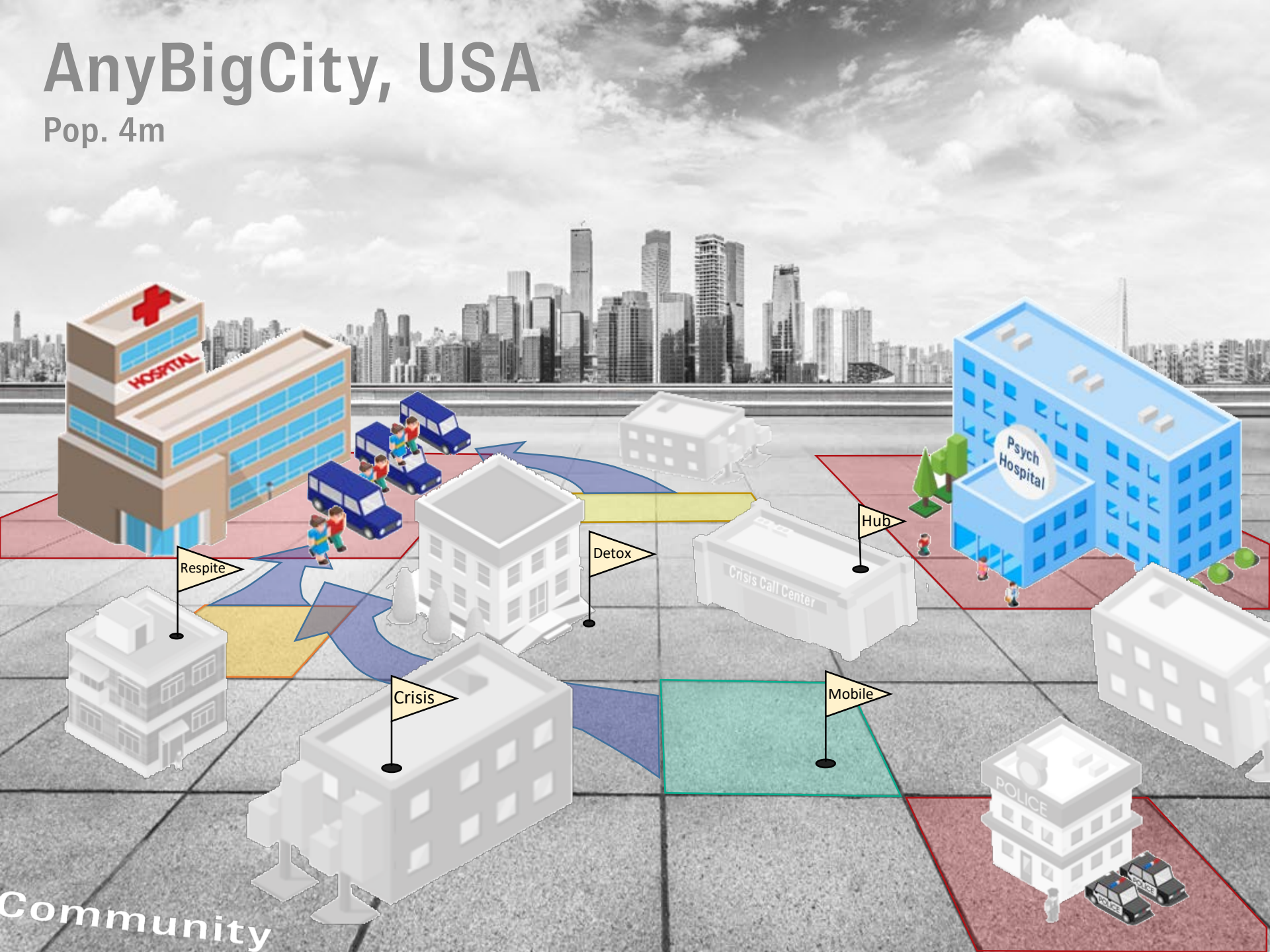
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Pop. 4m



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Pop. 4m

Choke Point



Inefficient Processes

A 3D white figure stands on a grey tiled floor, holding a blue umbrella. Numerous yellow sticky notes are falling around the figure, some attached to the umbrella. The background is a blue sky with white clouds. The title 'Inefficient Processes' is written in large black letters across the top.

**Voice
Mail**

**Dry Erase
Bed
Boards**

**Paper
Tracking/
Referrals**

Crisis Now System

In the **Third Model**, fully deploy the principle practices of the Crisis Now System and add Crisis Navigator and a 24/7 Outpatient Clinic

Real Time
Data
Exchange

Meet at
Their
Location

Immediate
Police
Drop Off

Outpatient



Inpatient

The Crisis Now System



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Community

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Pop. 4m



Community

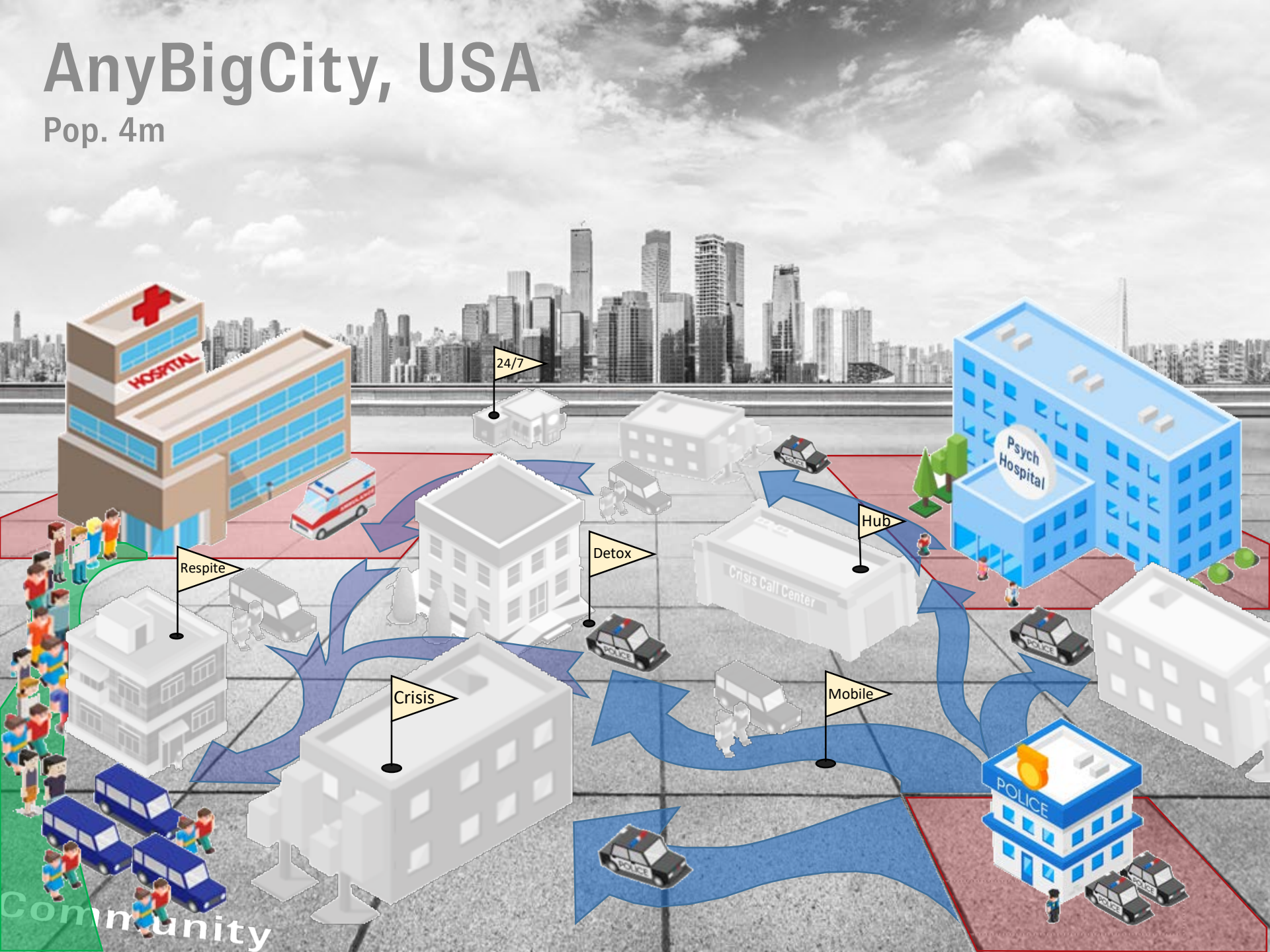
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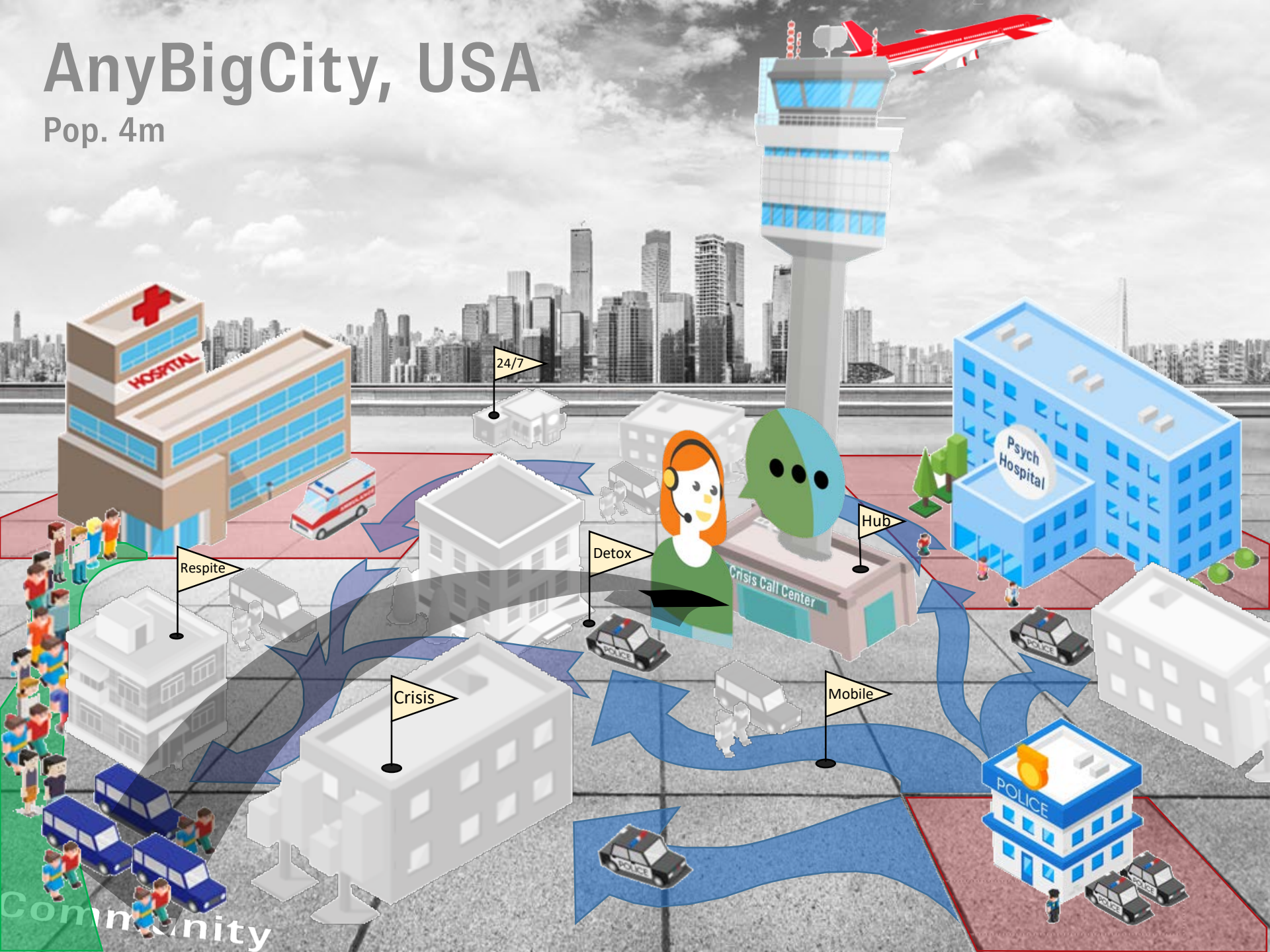
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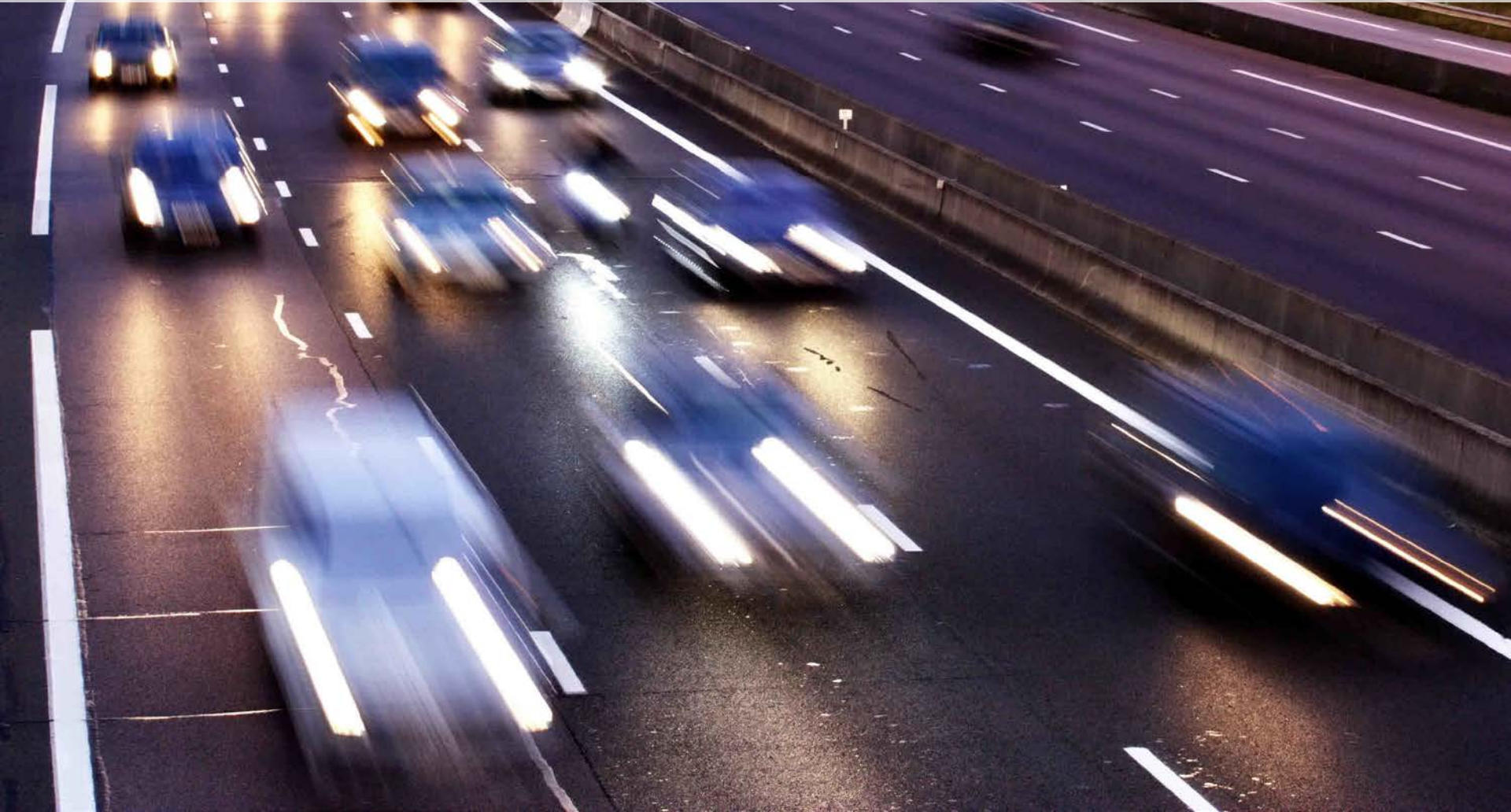
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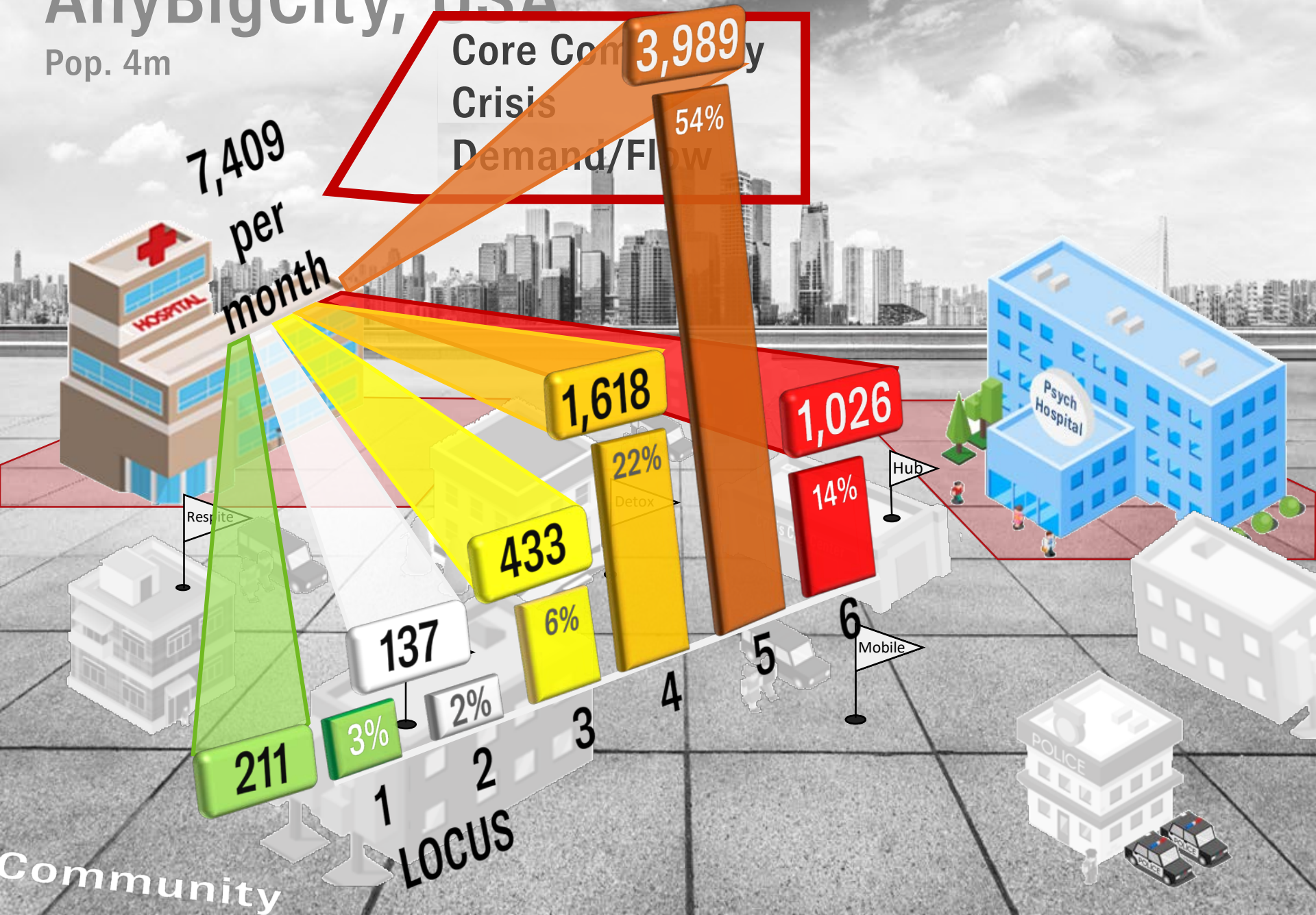
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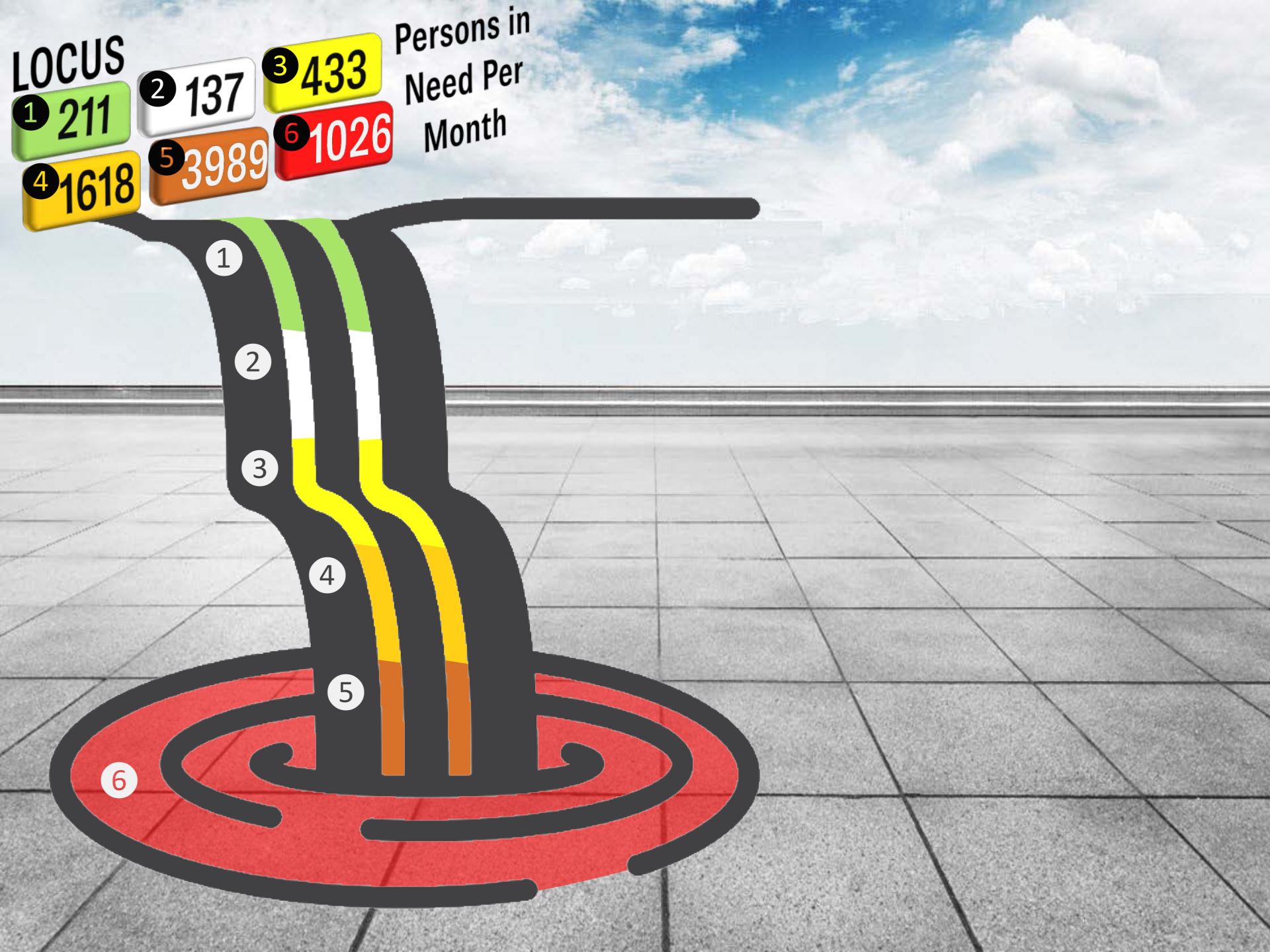
Throughput

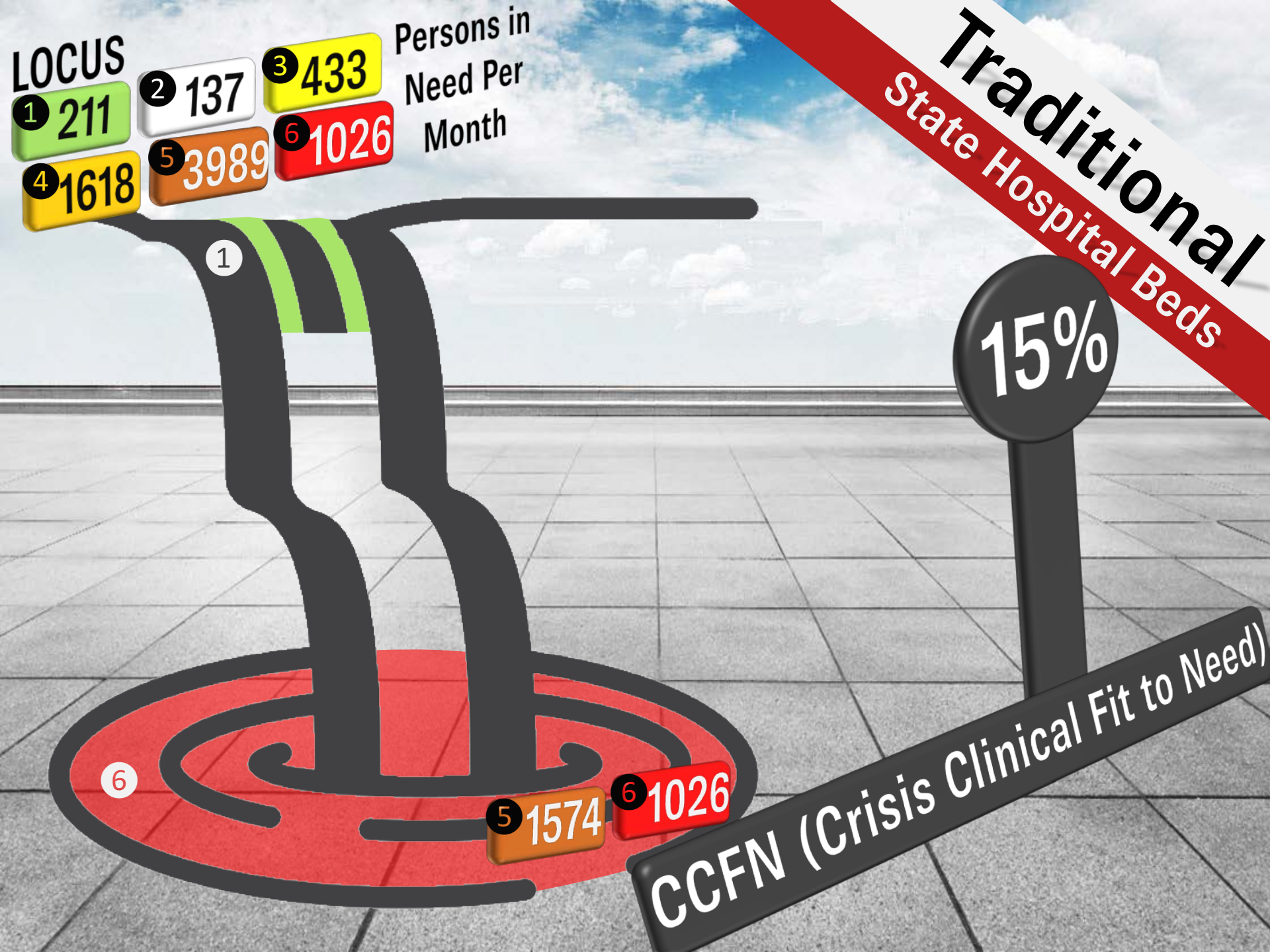


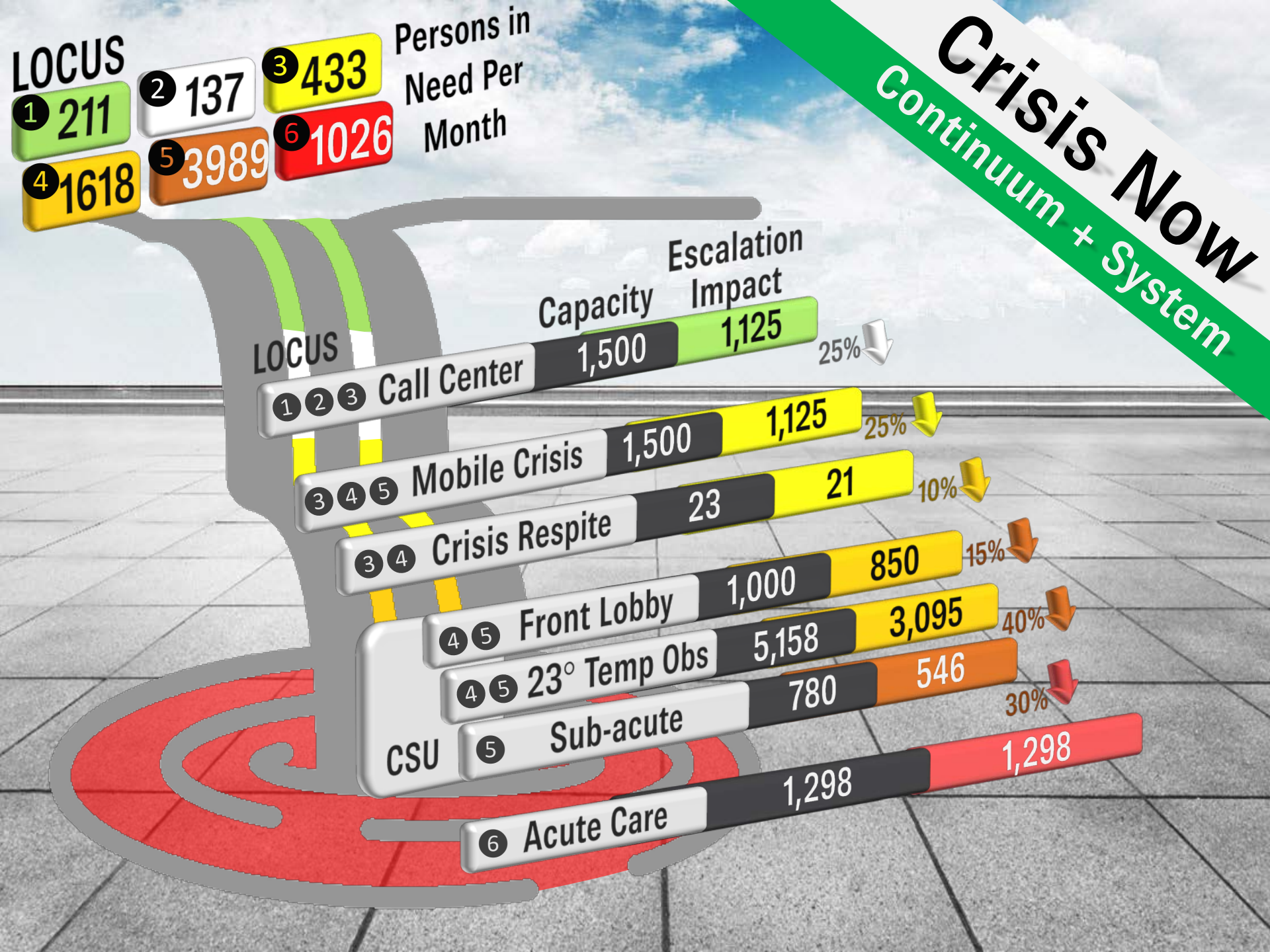
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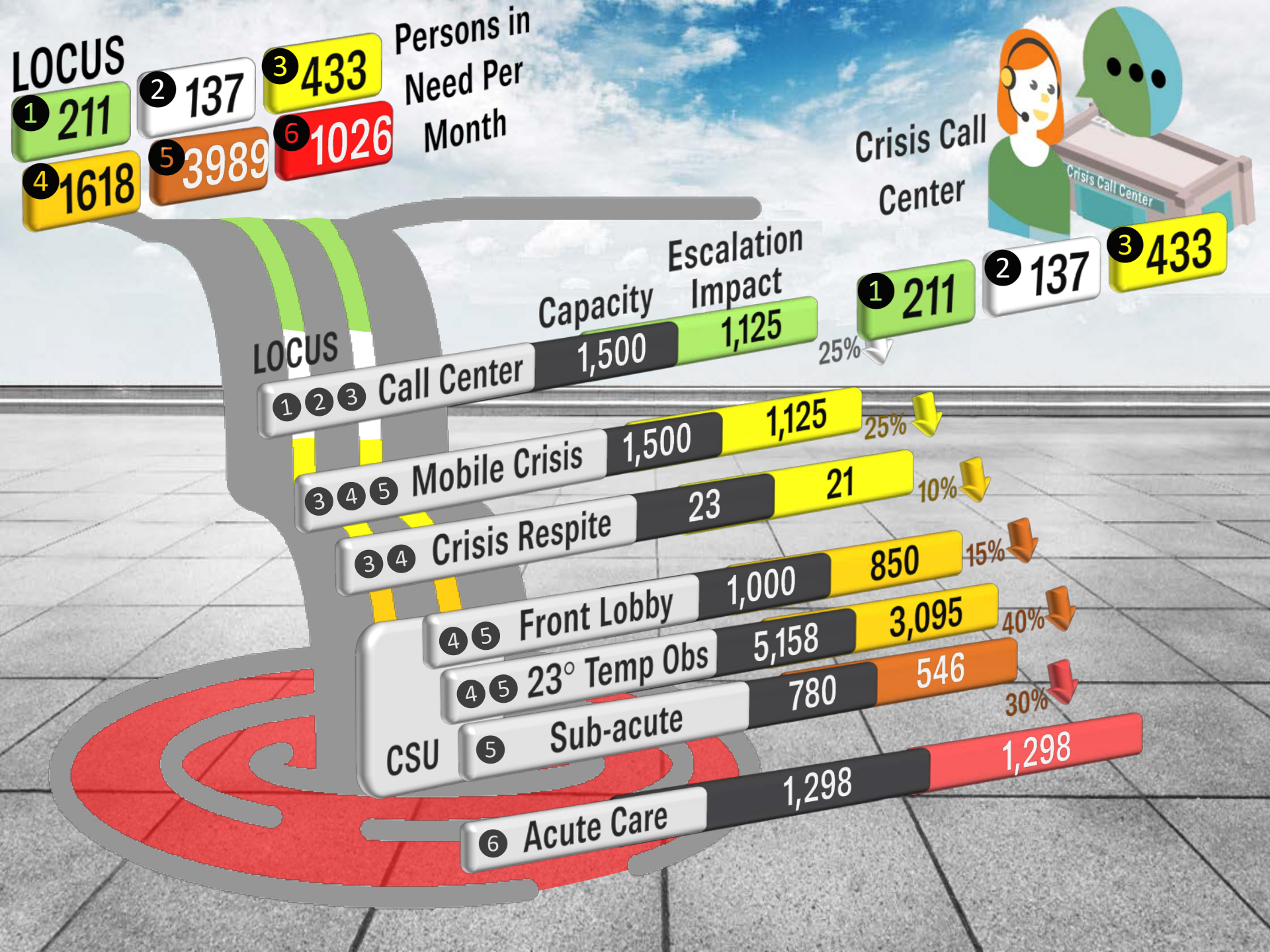
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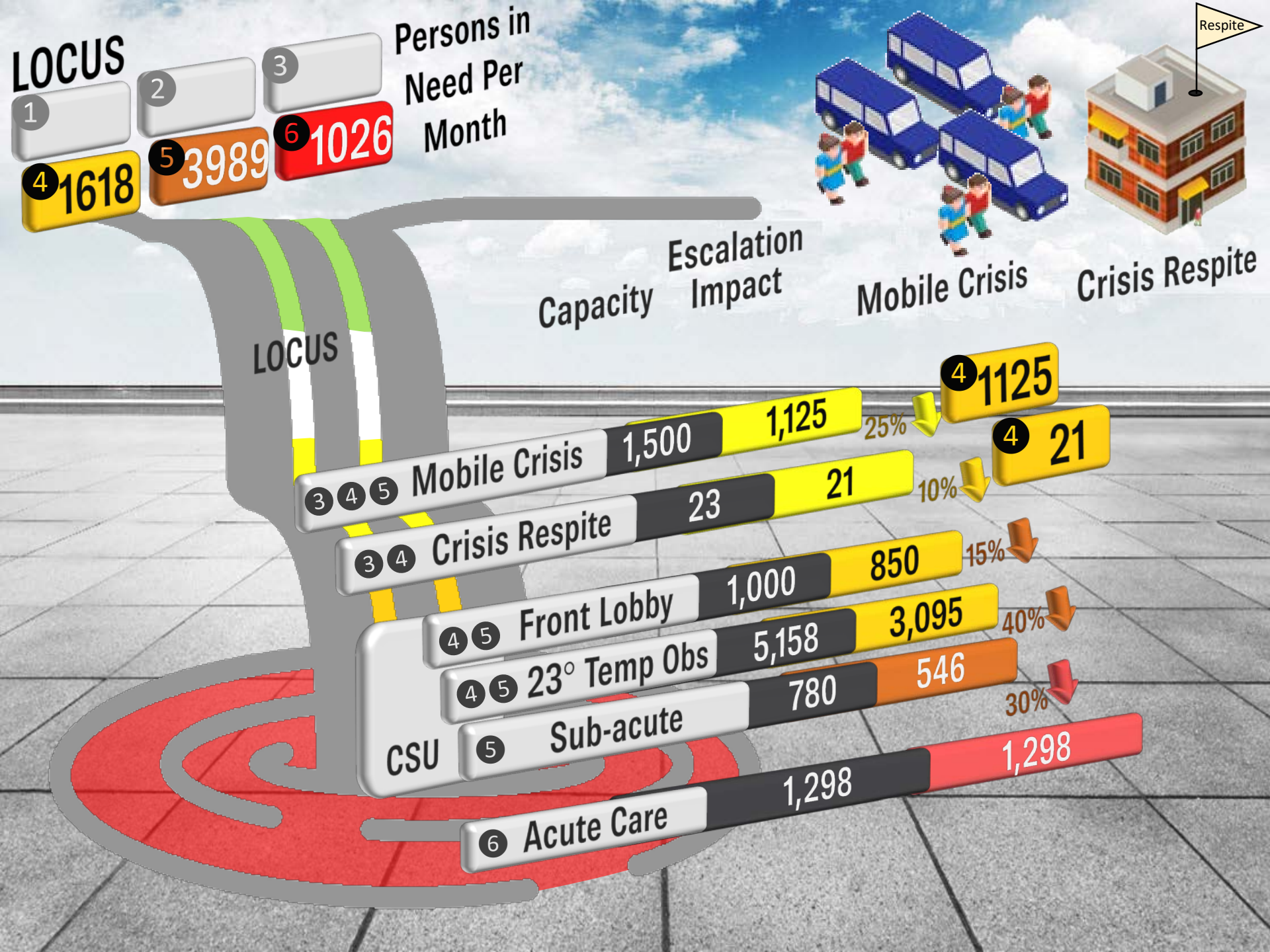


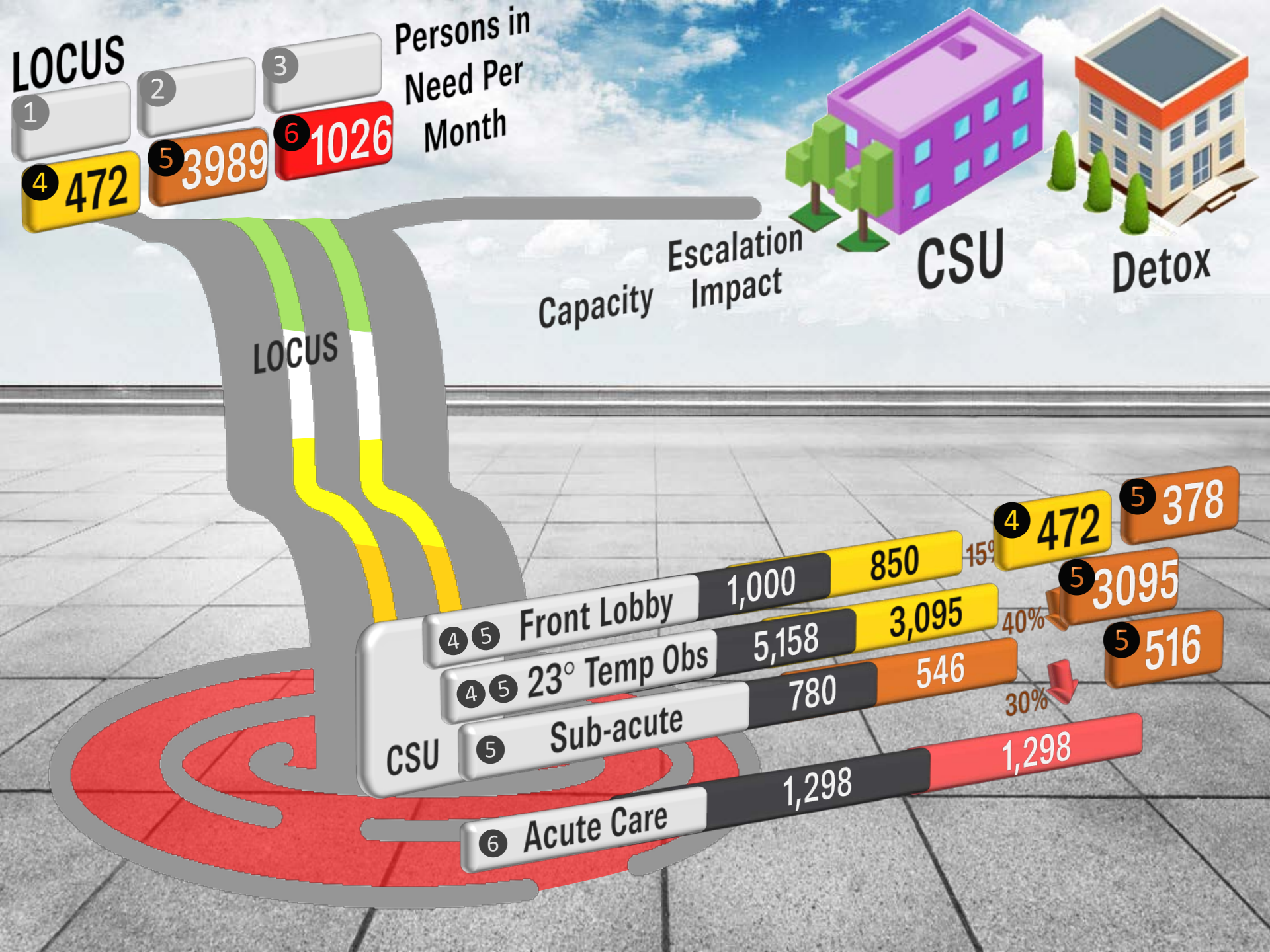


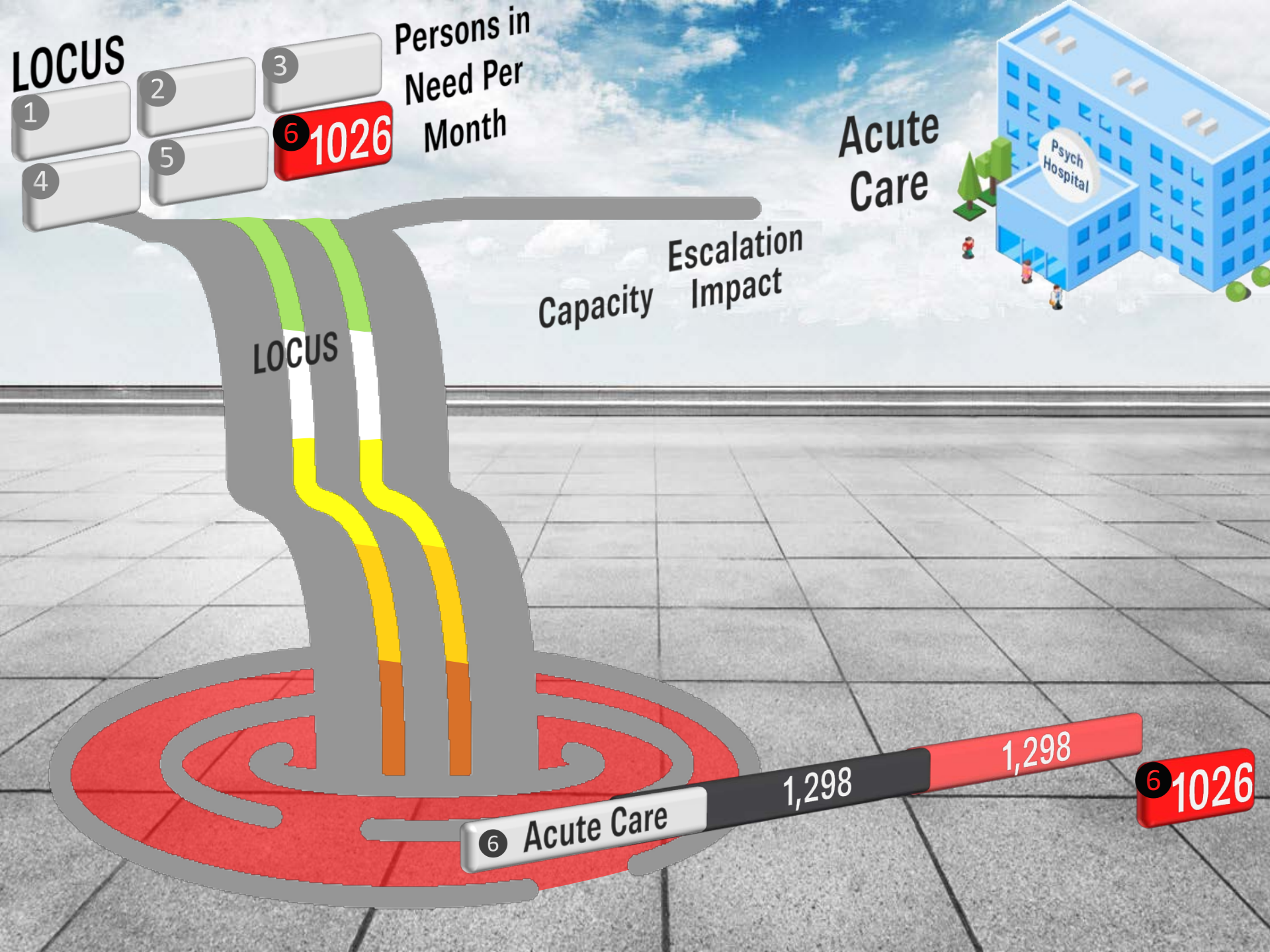


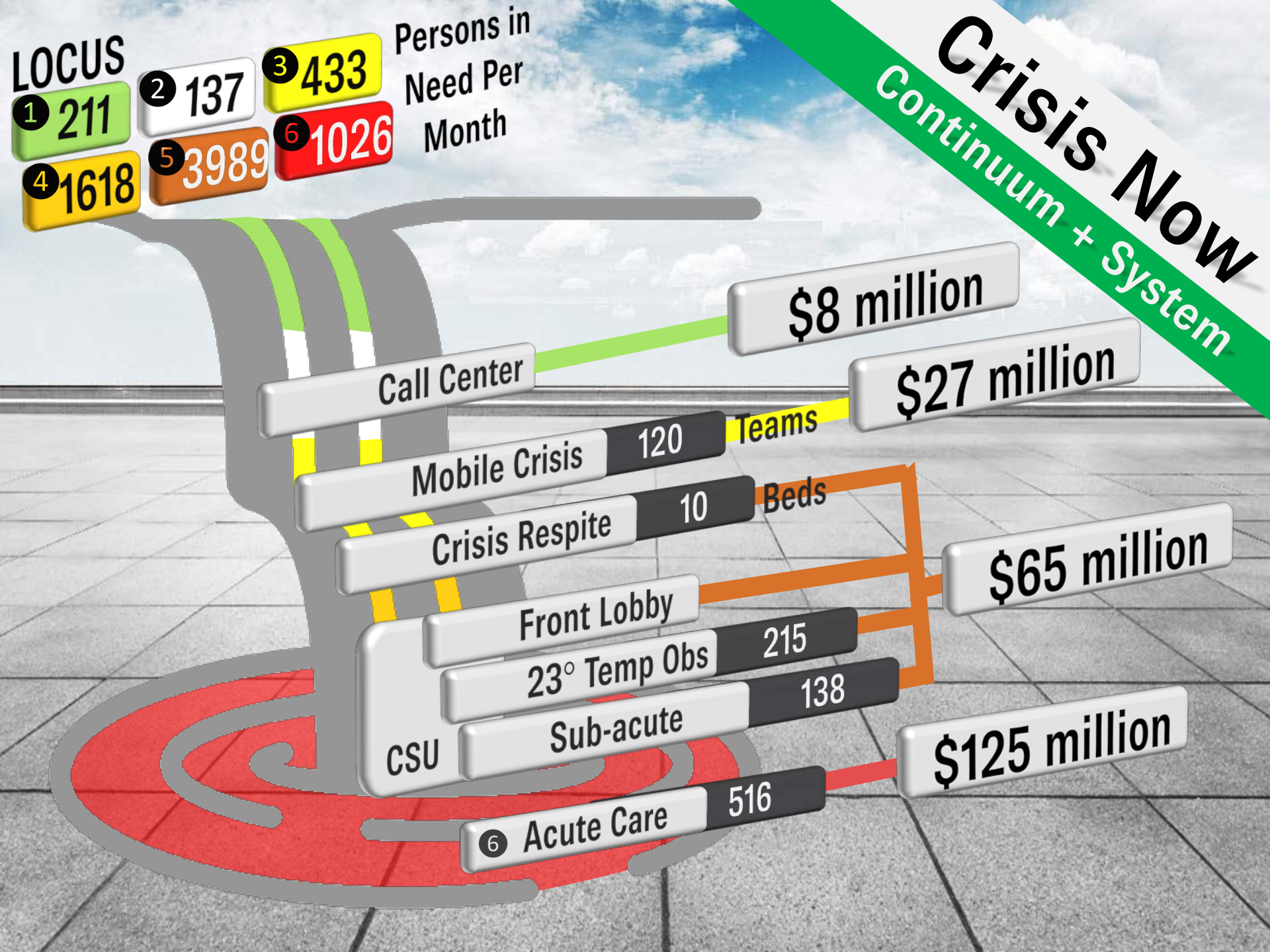


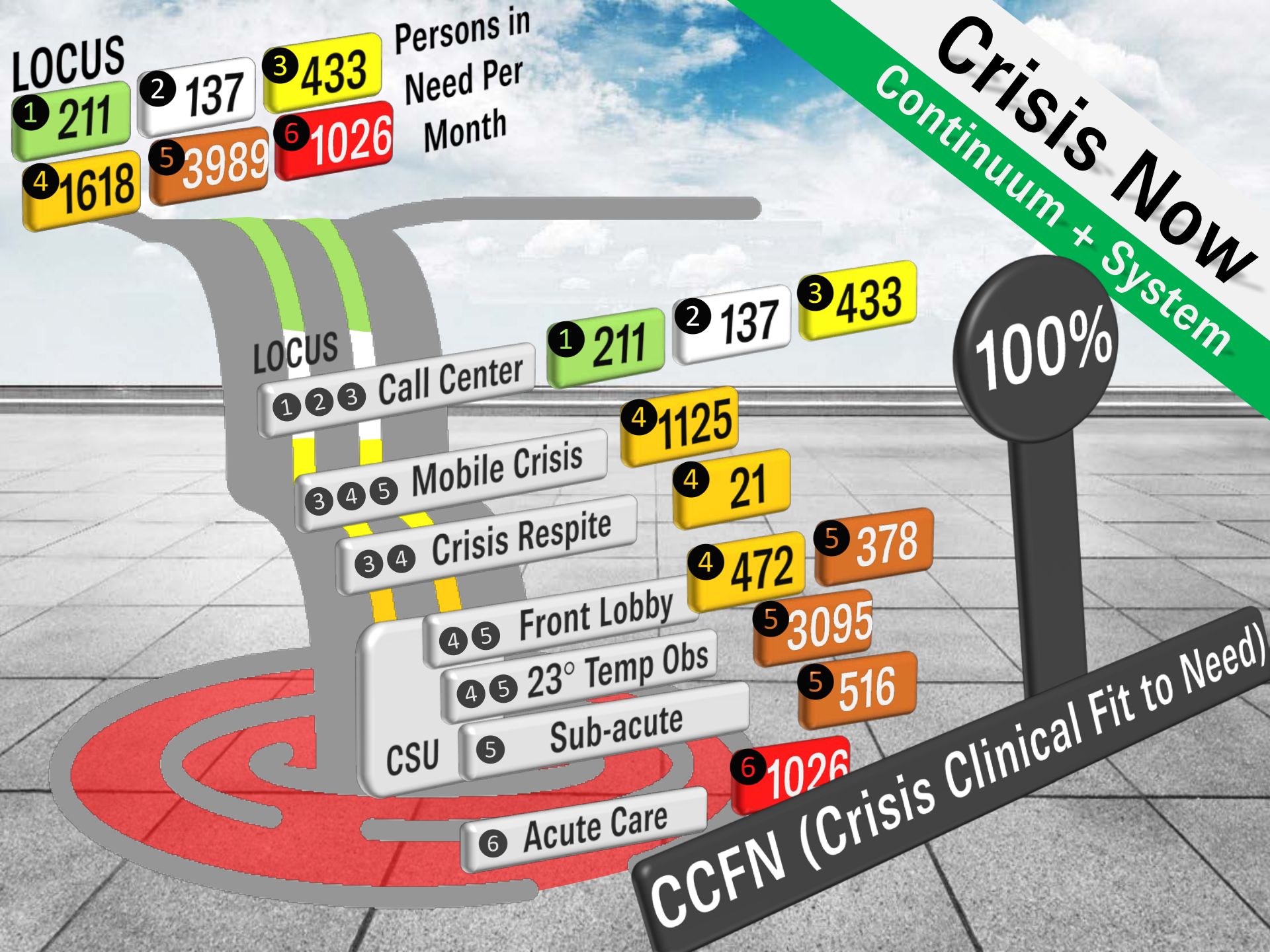












AnyBigCity, USA

Pop. 4m

\$8m + \$27m + \$65M

\$42

million

\$100

million

\$125

million

\$2,264 Each x 18,350

\$700

x 516

x 365

Navigator

Respite

24/7

Detox

Hub

Crisis

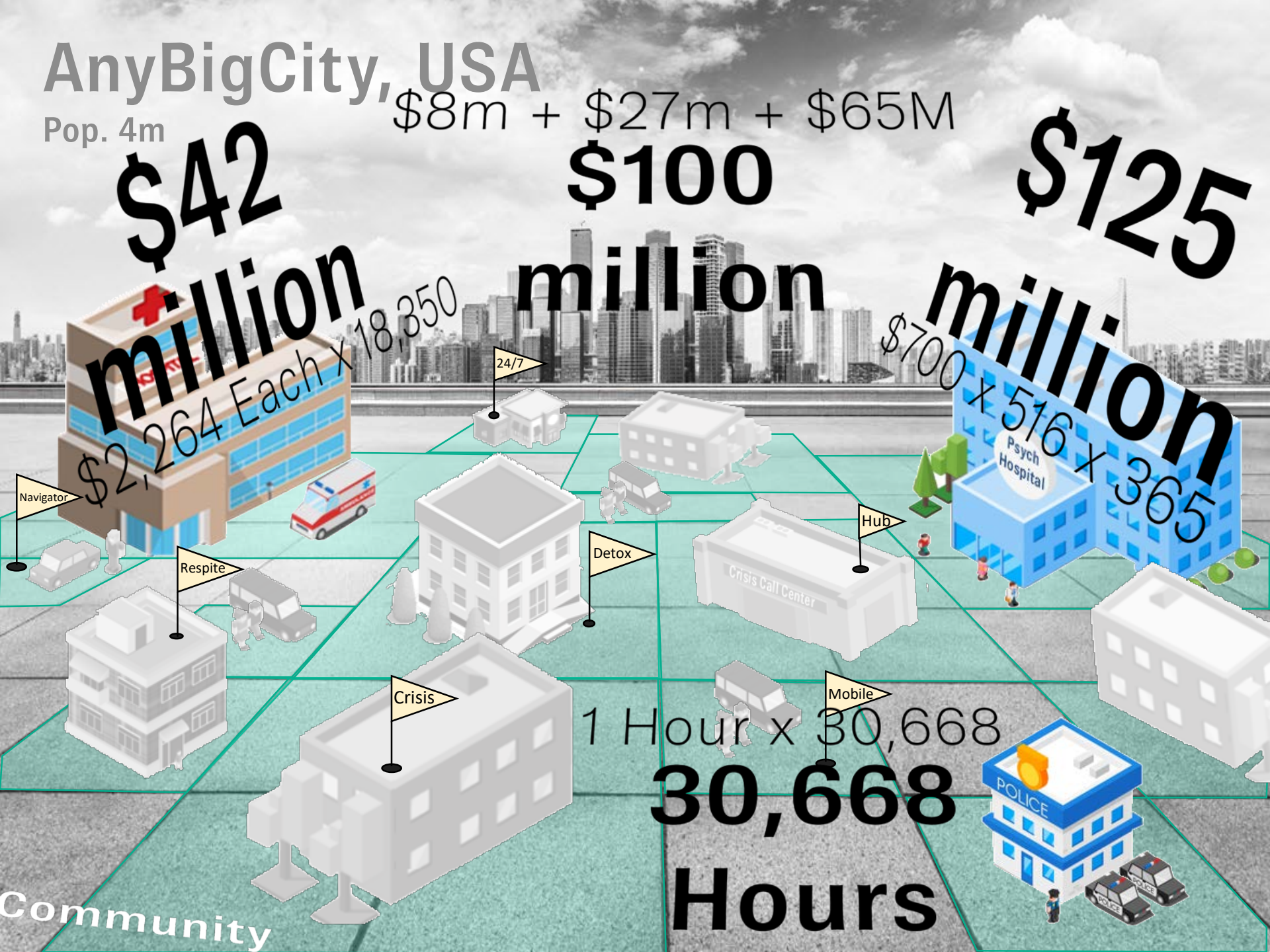
Mobile

1 Hour x 30,668

30,668

Hours

Community





Outcomes Of Better Crisis Care

AnyBigCity, USA

Model #1

Traditional
Public Sector
Inpatient Beds

Model #2

Crisis Now
Continuum

Model #3

Crisis Now
System

CCFN (Crisis Clinical Fit to Need)  567%

15%

69%

100%

Law Enforcement Hours  72%

108,520

75,197

30,668

Total Costs (Hospital + BH)  53%

\$564m

\$445m

\$267m

AnyBigCity, USA

Pop. 4m

Model #1

Traditional
Public Sector
Inpatient Beds

Model #3

Crisis Now
System

VS.

CCFN (Crisis Clinical Fit to Need)  567%

Everyone receives the right service.

Law Enforcement Hours  72%

Over 37 FTE Officers Freed Up

Total Costs (Hospital + BH)  53%

Nearly \$300 Million Savings

DISABILITY RIGHTS
ARE CIVIL RIGHTS

Olmstead

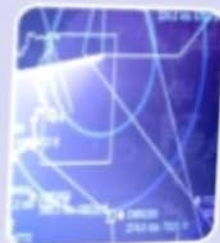




How Does Your Crisis System Rate?

A Framework for
State/Regional Self-
Assessment

For more info see
<http://crisisnow.com>



① Call Center Hub

Real Time Access
Valve Mgmt

Air Traffic Control
Connectivity

Data Sharing (Not
24/7 or Real Time)

Formal Partnerships

Shared MOU/
Protocols

Agency Relationships

② Mobile Outreach

Meets Person at
Home/Apt/Street

Adequate Access
Statewide

Statewide Access
but Reliant on ED

Adequate Access <3
Hr Response

Some Availability
Limited to Urban

None or Very
Limited Availability

③ Sub-acute Stabilization

Direct LE Drop Off
<10 Min

Adequate Access
Statewide

Statewide Access
but Reliant on ED

Adequate Access
>50% Bed Available

Some Availability
Limited to Urban

None or Very
Limited Availability

Crisis Now System

Equal Partners 1st
Responders

Adequate Access
Statewide Plus →

Integrated System
w/ Diversion Power

Adequate Access
Major Payers
Included

Limited State/
County Support

Fragmented Status
Quo

Level 5 System Also Conforms to 4 Modern Principles

① Priority Focus on
Safety/Security

② Suicide Care Best
Practices, e.g.
Systematic
Screening, Safety
Planning and
Follow-up

③ Trauma-Informed,
Recovery Model

④ Significant Role for
Peers

What makes Level 5
different?

Level 5:
FULLY INTEGRATED

Level 4:
CLOSE

Level 3: PROGRESSING

Level 2:
BASIC

Level 1:
MINIMAL

Self-assessment ([view](#))





CRISIS NOW

Successes in Arizona

This is Real ([Watch Here](#))

You Tube

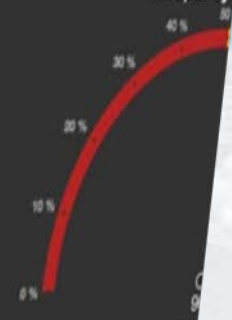
Eval & Tx Occupancy Percentage



Living Room Occupancy Percentage



Res Occupancy



& Tx
of Stay

35.3

Living Room
Length of Stay

2.95

Respite
Length of Stay

Retire
Length of Stay

Living Room
Available Beds

CrisisTech
360

This is Real ([Watch Here](#))

YouTube

Q&A

Crisis Now: Transforming Services