

Research Center Directors' Meeting

Informed Decision-Making in Healthcare



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Outline of This Presentation

- Louisiana Health Status –
(49th or 50th and Getting Worse?)
- Concept of Informed Decision Making
- Reality & Potential of Informed
Health Decision Making in Louisiana
- Health Informatics Center of Acadiana
at UL Lafayette
- The Region IV Healthcare Marketplace
- The Future?

*Louisiana's Health Status
(49th or 50th
and Getting Worse?)*

Health Status – Risks and Outcomes

■ Selected Risk Factors

- Prevalence of Smoking
(% of population)
- Motor Vehicle Deaths
(per 100,000,000 miles driven)
- Violent Crime
(per 100,000 population)
- Risk for Heart Disease
(% above/below national avg.)
- High School Graduation
(% of incoming 9th graders)
- Children in Poverty
(% of < 18 poverty population)
- Adequacy of Prenatal Care
(% of pregnant women receiving)
- Lack of Health Insurance
(% without health insurance)
- Support for Public Health Care
(ratio)

■ Selected Outcomes

- Occupational Fatalities
(deaths per 100,000 workers)
- Limited Activity Days
(days in last 30 days)
- Heart Disease
(deaths per 100,000 population)
- Cancer Deaths
(deaths per 100,000 population)
- Infectious Disease
(cases per 100,000 population)
- Total Mortality
(deaths per 100,000 population)
- Infant Mortality
(deaths per 1,000 live births)
- Premature Deaths
(years lost per 100,000 population)

Louisiana was 49th in 2003

From the United Health Foundation State Health Rankings - 2003 Edition:

- “Louisiana is 49th this year; it was 50th in 2002 [and in 2001 and in 2000].”
- “Louisiana is 49th for the combined measures of risk factors and 49th for the combined measures of outcomes, possibly indicating that the relative health of the population will remain at current levels in the future.”

Louisiana ... far from a leader

From the United Health Foundation State Health Rankings - 2003 Edition:

- “It ranks in the bottom five states on six of the 17 individual measures:
 - the risk for heart disease *[19% above the national average]*
 - the percentage of children in poverty *[23.1% of persons under 18]*
 - the rate of uninsured population *[18.4% of population]*
 - the rate of cancer deaths *[224.8 per 100,000 population]*
 - the infant mortality rate *[9.4 per 1,000 live births]*
 - the premature death rate *[10,202 years lost per 100,000 population]*

Louisiana ... far from a leader (continued)

From the United Health Foundation State Health Rankings - 2003 Edition:

- “It also ranks in the bottom 10 states on five additional measures.”
 - motor vehicle deaths [*2.1 deaths per 100,000,000 miles driven*]
 - violent crime [*687 offenses per 100,000 population*]
 - high school graduation [*58.5% of incoming ninth graders*]
 - infectious disease [*32.8 cases per 100,000 population*]
 - total mortality [*960.1 deaths per 100,000 population*]

Some Bright Spots, but Some Dark

From the United Health Foundation State Health Rankings - 2003 Edition:

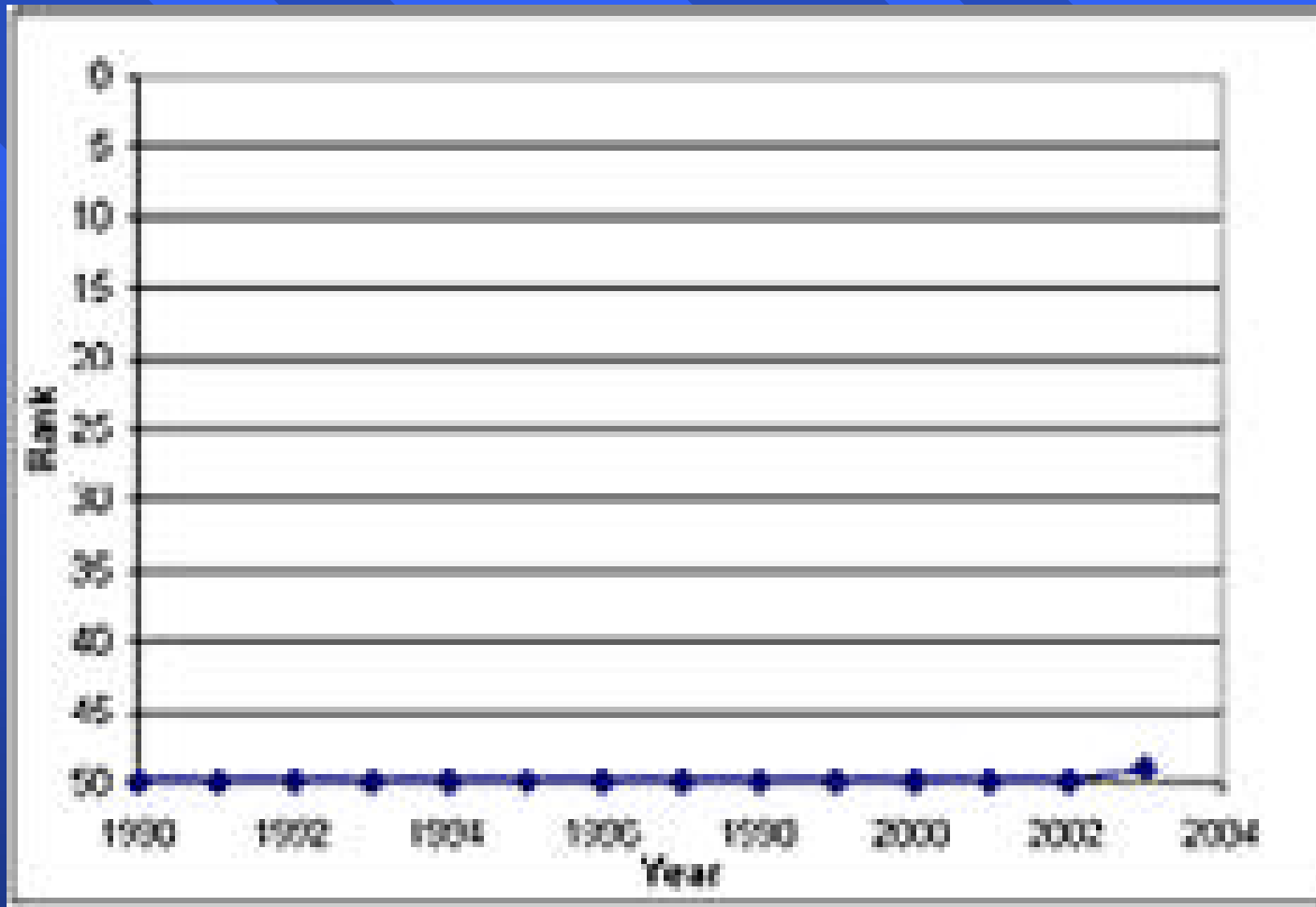
- “The state is 20th for access to adequate prenatal care, which is available to 78.4 percent of pregnant women.”
- “Since 1990, access to adequate prenatal care has increased from 67.0 percent to 78.4 percent of pregnant women receiving adequate prenatal care ...
- “Disparity is also a challenge, as only 67.6 percent of pregnant black women receive adequate prenatal care compared to 86.2 percent of pregnant white women.”

Not Keeping Pace with Improvements in Other States

From the United Health Foundation State Health Rankings - 2003 Edition:

- While heart deaths are down, “... the risk for heart disease has increased from equal to the average state to 19 percent above average.”
[47^h out of 50 states in 2003, down from 20th in 1990]
- “In the past year, the prevalence of smoking decreased from 24.6 percent to 23.8 percent of the population, ...
[32nd out of 50 states in 2003, down from 22nd in 1990]
- ... and support for public health care increased from 44 percent below the average state to 22 percent below average.”
[38th out of 50 states in 2003, down from 32nd in 1990]

Can You Detect A Trend Here?

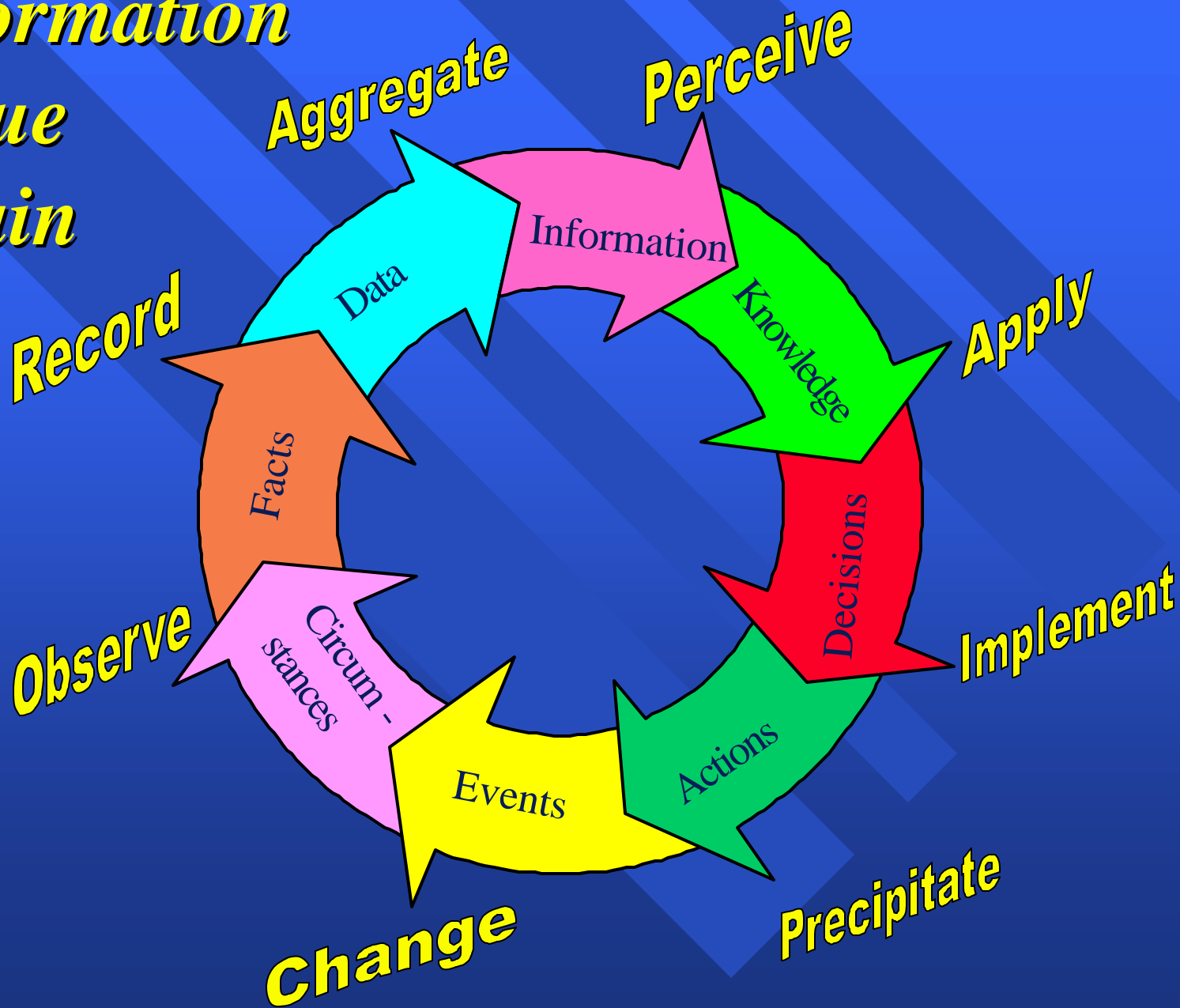


Source: United Health Foundation State Health Rankings - 2003 Edition

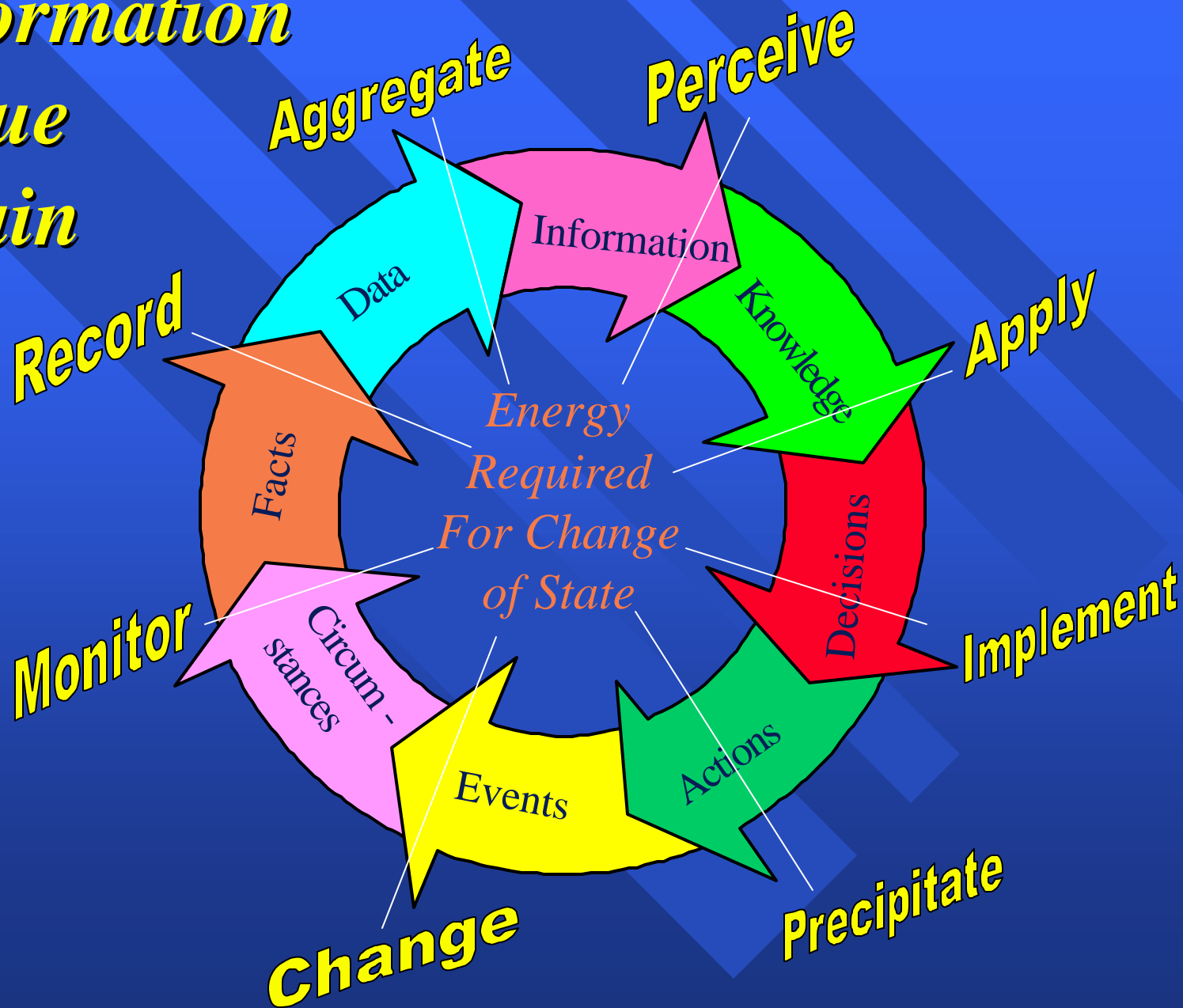
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Concept of Informed Decision Making

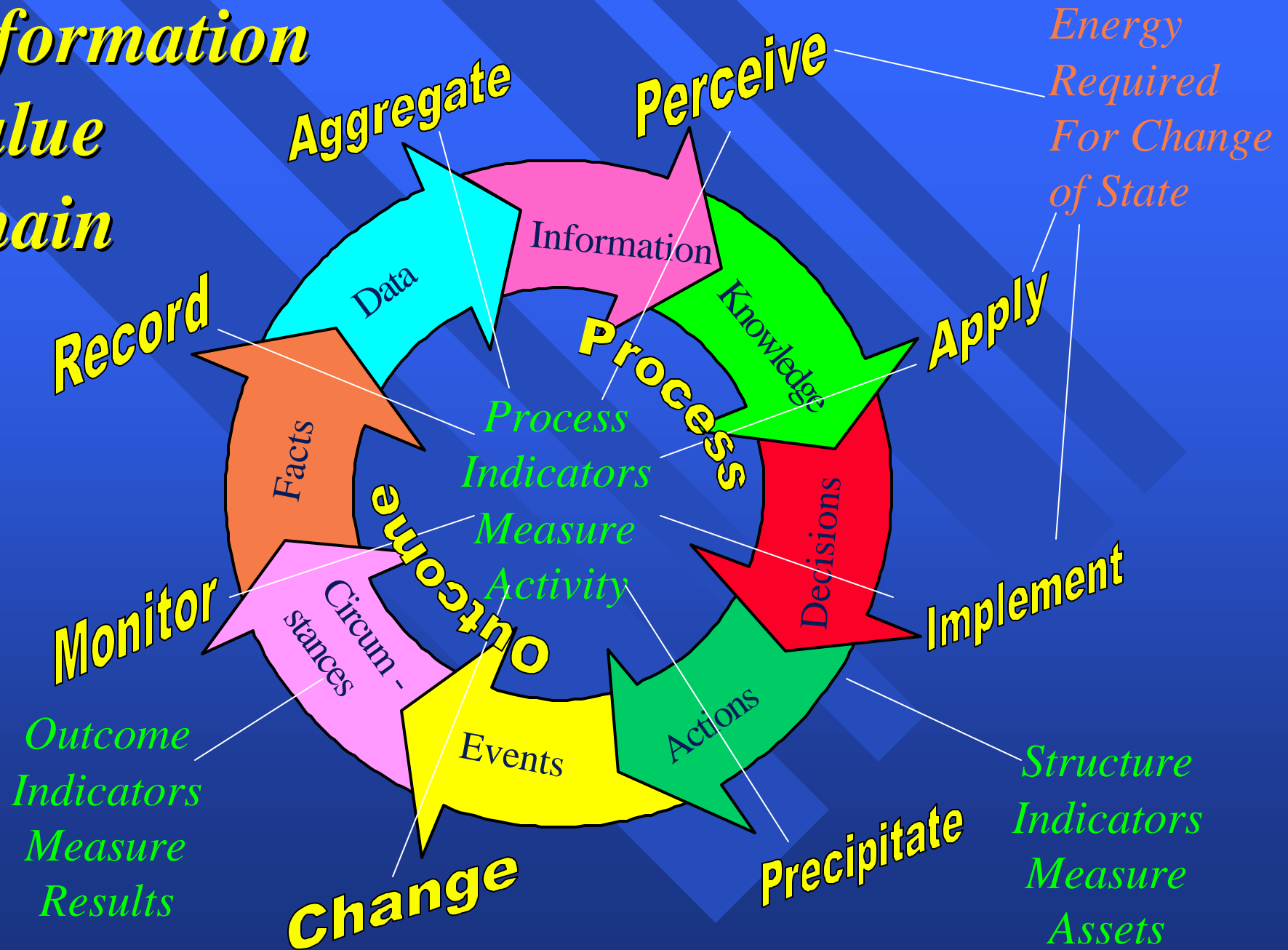
Information Value Chain



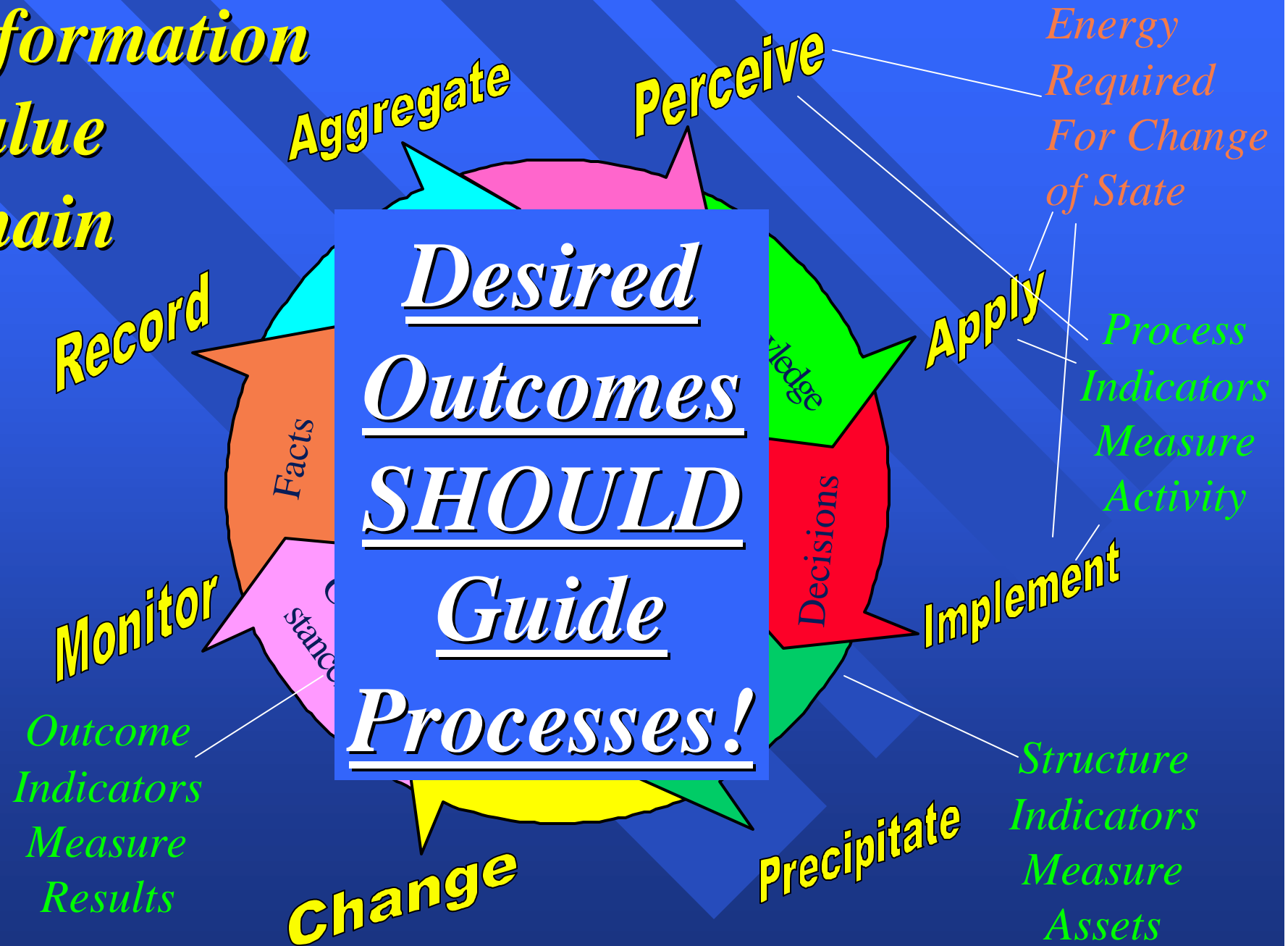
Information Value Chain



Information Value Chain

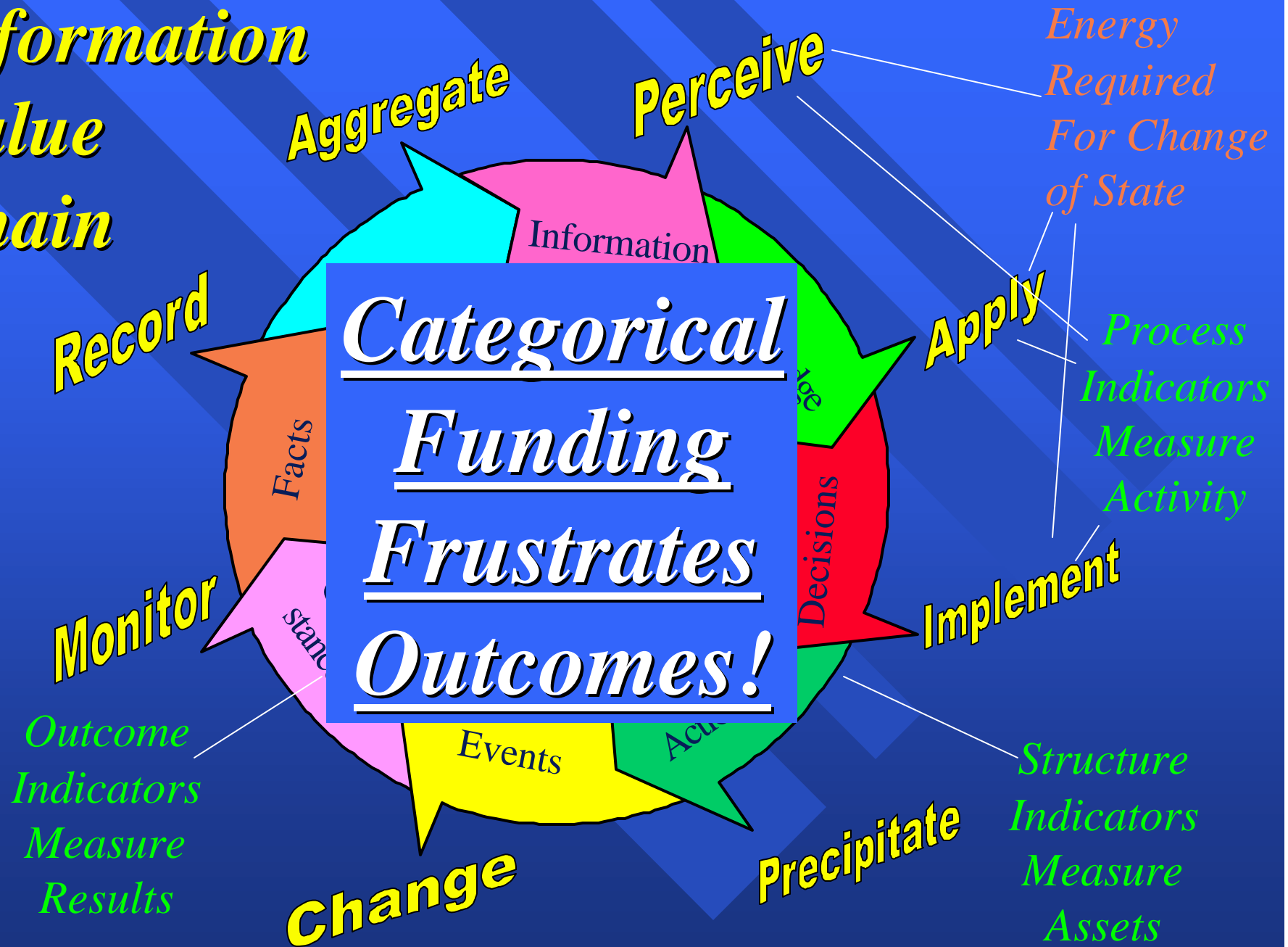


Information Value Chain



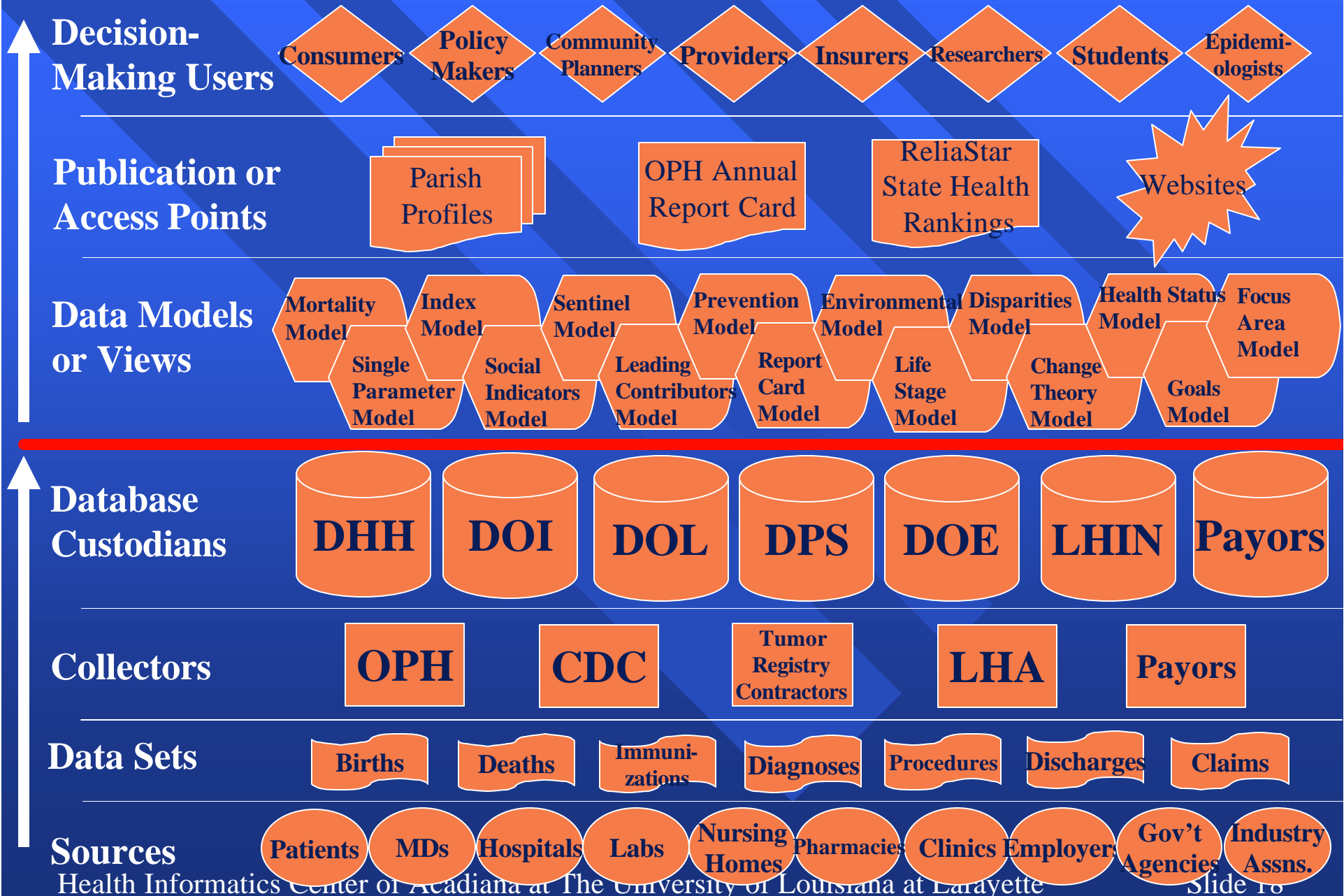
*Reality & Potential
of Informed
Health Decision Making
in Louisiana*

Information Value Chain



Caillouet 2000

Decision-Making Users



Health Assessment: Gathering, Analyzing, & Disseminating Health Information

Decision-Making Users

Community Providers Insurers Researchers Students Epidemiologists

Indexes or Access Points

Parish Profiles OPH Annual Report Card State Rankings



Data Models or Views

Mortality Model Index Model Sentinel Model Prevention Model Envir Model Health Status Model Focus Area Model
 Single Parameter Model Social Indicators Model Leading Contributors Model Report Card Model Change Theory Model Goals Model

Data Base Custodians

DHH DOI DPS DOE LHIN Payors

Collectors

CDC Tumor Registry Contractors LHA Payors

Data Sets

Births Deaths Immunizations Diagnoses Procedures Discharges Claims

Sources

Patients MDs Hospitals Labs Nursing Homes Pharmacies Clinics Employers Gov't Agencies Industry Assns.

*Health Informatics Center
of Acadiana
at UL Lafayette*

HICA at UL Lafayette

- The Name
- The Region and State
- A Brief History
- Mission
- Initiatives
 - *Louisiana HABITS*
(Healthcare Access Barriers In The State)
 - Project CARES – Violence Prevention in Schools
 - Community Empowerment Initiative
- Starting Soon
 - Healthy Start
 - Safe Schools / Healthy Students
- Looking Ahead
 - Passive ER Surveillance

HICA – The Name

- “Medical Informatics” is the discipline which uses computer technology to gather, restructure, organize, and manage information to support medical research, education, and patient care.
- “Health Informatics” is the discipline which uses computer and communications technology to gather and analyze data, and to disseminate information to health-related decision makers.

(The latter definition is somewhat broader, as is the broad definition of “health” from the World Health Organization: *Health is a state of complete physical, mental, and social well-being and not merely the absence of disease.*)

HICA – A Brief History

- Partnership for a Healthier Lafayette (1996-1998)
 - *A Vision For Our Future* (April 1998)
 - *Bonne Santé à Lafayette!*
 - » Lafayette Community Health Consortium (June 1998)
 - » Health Informatics Center of Acadiana (February 1999)
- Louisiana Turning Point Partnership (1998-2000)
 - *Public Health Improvement Plan: A Catalyst for Change* (April 2000)
- Healthy People 2010 (2000-)
 - *A Partnership for Health in the New Millennium* (January 2000)
 - Lafayette's Community Health Status Indicators (September 2000)
- HICA's *Louisiana HABITS* (July 2000-)
 - Louisiana Rural Health Access Program (RWJ, Kellogg, Pfizer)
 - Rapides Foundation's Health Care Access initiatives

HICA – Mission

1. **Education** – to augment the education of health professionals and healthcare administrators at the undergraduate, graduate, and continuing education levels in the area of health informatics.
2. **Research** – to provide an avenue for scholarly research into community health needs and into the effectiveness of the healthcare community's response to those needs.
3. **Health Status Enhancement** – to serve the goals of Lafayette and Acadiana in access to healthcare and in improving public health generally, and to serve as a vital resource to “healthy communities” initiatives throughout the State of Louisiana.
4. **Decision-Maker Empowerment** – to fulfill community-information requirements of healthcare providers, and to aid policymakers and statewide professional and trade associations in matters relating to healthcare delivery and financing.

Health Informatics Center of Acadiana:

Roles

HICA's Data Collection Role

- **Vital Statistics** data (births, deaths, marriages, etc.)
 - » HICA will be a user, not a collector
- **Service** data (discharges, visits, procedures, etc.)
 - » Parallels to Acadiana Tumor Registry, part of Acadiana Medical Research Foundation (AMRF)
 - » OPH's Immunization Project
 - » Context of LHIN
 - » New Health Data Clearinghouse law
- **Risk** data (local surveys of at-risk groups, etc.)
 - » Youth Risk Behavior Surveillance System (YRBSS)
 - » Behavioral Risk Factor Surveillance System (BRFSS)

Health Informatics Center of Acadiana:

Roles (continued)

HICA's Data Analysis Role

- **Local** focus
 - » Research arm of Lafayette Community Health Consortium
 - » Contrasts with Louisiana Office of Public Health, Centers for Disease Control and Prevention, National Center for Health Statistics
- **Passive** analysis
 - » Review of data collected by public agencies through “qualified researcher” designation
- **Active** analysis
 - » Monitoring of effectiveness of action-oriented *Bonne Santé à Lafayette!* programs

Health Informatics Center of Acadiana:

Roles (continued)

HICA's Information Dissemination Role

- Health Status Report Card to be issued regularly in conjunction with LCHC meetings
- Turning Point Partnership Project
 - » Healthy communities initiatives around the state
 - » OPH examining its role and strategic contribution to society
 - » May support HICA-like contractors which are more in tune with local needs and more adept at collecting locally relevant data

Health Informatics Center of Acadiana: Uses of Information

PHL's Community Health Status Report Card

Categories of measurement indicators

- Access to Health Education and Primary Care
- Behavior and Personal Responsibility
- Care Services Provided by Private as well as Public Sources
- Disability and Occupational Health
- Environmental Health
- Maternal, Child, and Infant Health
- Morbidity and the Leading Causes of Prevention
- Mortality and the Leading Causes of Long Life

Why measure?

So we can identify community problems, understand their magnitude, prioritize their solutions, and monitor our progress toward becoming a healthy community!

*Healthy People 2010's “Leading Indicators”**

1. Physical Activity
2. Overweight and Obesity
3. Tobacco Use
4. Substance Abuse
5. Responsible Sexual Behavior
6. Mental Health
7. Injury and Violence
8. Environmental Quality
9. Immunization
10. Access to Health Care

*(*categories of specific HP2010 improvement targets)*

*LCHC Health Status Themes**

adopted at April 2 2000

Board meeting

1. Physical Activity
 2. Overweight and Obesity
 3. Tobacco Use
 4. Substance Abuse
 5. Responsible Sexual Behavior
 6. Mental Health
 7. Injury and Violence
 8. Environmental Quality
 9. Immunization
 10. Access to Health Care
- (*identical to the Healthy People 2010 “Leading Indicators”)*

HICA Initiatives – Louisiana HABITS

- *Louisiana HABITS* – “Healthcare Access Barriers In The State”
- Built on questions from widely used surveys:
 - CDC’s Behavioral Risk Factor Surveillance System (BRFSS)
 - Medical Expenditure Panel Survey (MEPS)
 - North Carolina Health Profile Survey (NCHP), and other studies
- Survey methodology to better address locally significant barriers through sufficiently dense sampling
- Administered in two phases:
 - Random telephone survey to measure general population, and
 - In-person interviews to profile vulnerable populations
- No personally identifiable data collected retained
- Tailored for use with “healthy communities” initiatives

Results Inform Local Leadership, not Washington!

Access Barriers -- Defined

- For the purposes of this study, a household is said to experience a “barrier to access to healthcare services” if any one or more of the following three situations exist:

One or more household members had some problem in the last 12 months ...

1. Problem obtaining healthcare services, including

a) Difficulty in obtaining care

b) Delayed seeking care

c) Did not receive the care they thought they should have ... “DDD”

2. Problem obtaining prescribed medications

or

One or more household members currently ...

3. Lack of health insurance coverage or a “medical card”.

Region IV Findings

Region IV Healthcare Access Barriers*	“DDD”	Medications	Insurance	Overall
Acadia (2003)	15.2%	9.1%	28.3%	40.4%
Evangeline (2002)	29.2%	15.6%	29.2%	46.9%
Iberia (2002)	17.4%	10.0%	21.6%	33.2%
Lafayette (2002)	25.0%	7.3%	13.5%	32.3%
St. Landry (2002)	18.4%	14.7%	22.6%	36.8%
St. Martin (2001)	18.4%	14.3%	26.5%	42.9%
Vermilion (2001)	14.9%	10.9%	19.8%	33.7%
Region IV Average	19.8%	11.7%	23.1%	38.0%

* From HICA's *Louisiana HABITS* random telephone surveys of general population (in year noted)

Green => “better” than average
Red => “worse” than average

*The
Region IV
Healthcare Marketplace*

The Region IV Marketplace Healthcare

- I. What is “Region IV”?
- II. What is the Region IV “healthcare marketplace”?
- III. The “Medically Indigent” & University Medical Center
- IV. Where do patients go for care?

I. What is “Region IV”?

Louisiana DHH Regions

- The Louisiana Department of Health and Hospitals (DHH) has organized the state into nine administrative regions.

- DHH Region IV

consists of:

Acadia Parish

Evangeline Parish

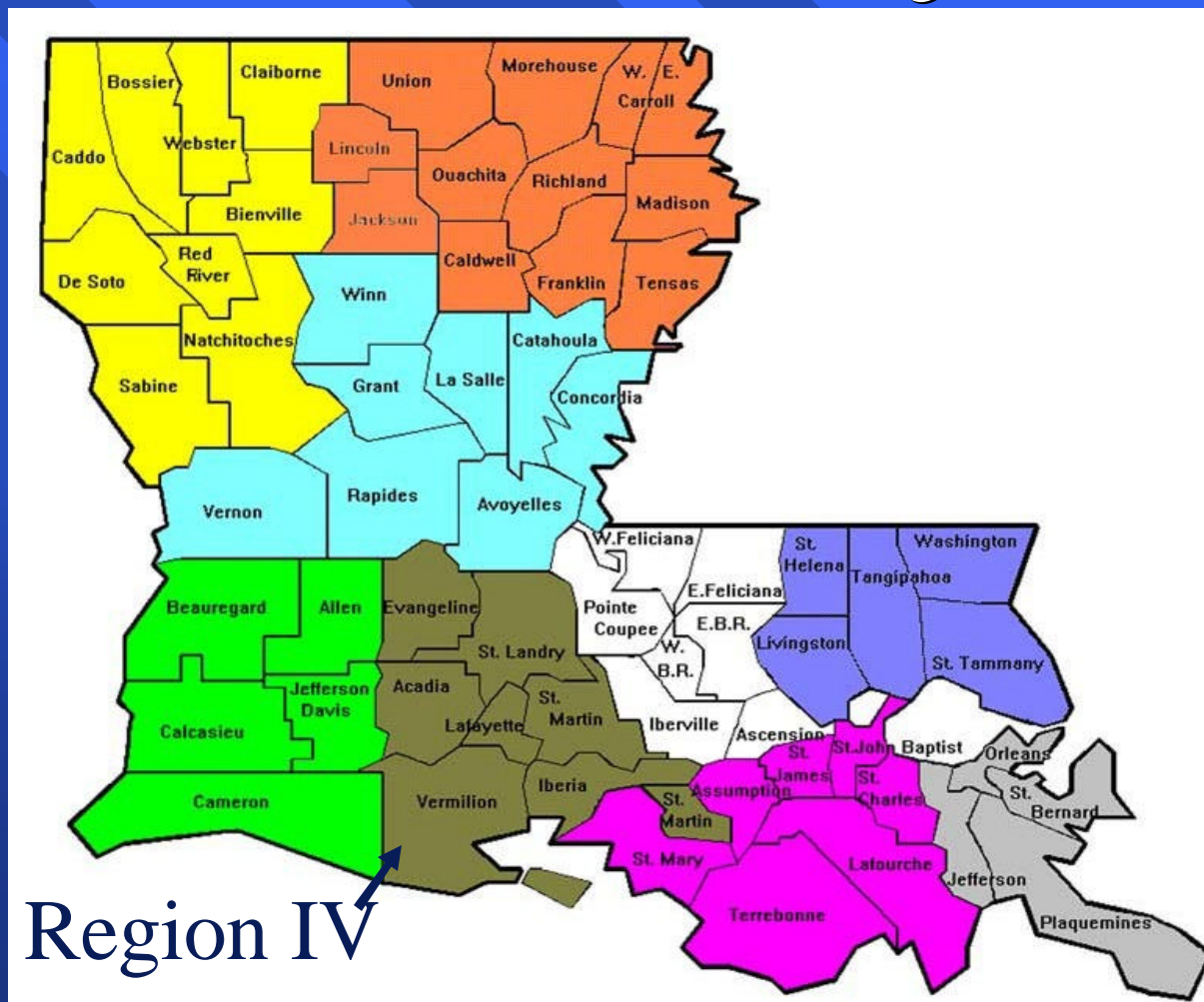
Iberia Parish

Lafayette Parish

St. Landry Parish

St. Martin Parish

Vermilion Parish



*II. What is the “Region IV
Healthcare Marketplace”?
-- Healthcare Consumers*

Region IV Healthcare Marketplace: Healthcare Consumers

- All persons in Region IV are either active or eventual consumers of healthcare services, but not all can afford to purchase care, personally or through insurance plans.

Population Statistics

- Region IV has a population of **548,154 persons**:
 - Estimated **111,982 “uninsured” (20.4%)**:
 - » Est. 79,283 “uninsured and at or below 200% FPL (14.5%)
 - » Est. 32,699 “uninsured and above 200% FPL (5.9%)
 - Countable **193,638 “under-insured” (35.3%)**:
 - » 126,288 Medicaid enrollees (23.0%) [due to poor reimbursement]
 - » 67,350 Medicare enrollees (12.3%) [have lacked R_x benefit]
 - Estimated **242,534 “well-insured” (44.2%)**
- 548,154**

Low Income Households

UMC Catchment Parish	2000 Population ¹	Population at or < 200% FPL ²	%	Medicaid Enrollees ("Eligibles") ³	%	Target Population (at or < 200% FPL and not covered by Medicaid)	%
Acadia	58,861	29,503	50.1%	15,227	25.9%	14,276	24.3%
Evangeline	35,434	14,971	42.3%	11,628	32.8%	3,343	9.4%
Iberia	73,266	39,227	53.5%	18,304	25.0%	20,923	28.6%
Lafayette	190,503	120,365	63.2%	31,724	16.7%	88,641	46.5%
St. Landry	87,700	39,475	45.0%	26,596	30.3%	12,879	14.7%
St. Martin	48,583	25,935	53.4%	11,862	24.4%	14,073	29.0%
Vermillion	53,807	29,361	54.6%	10,947	20.3%	18,414	34.2%
Total	548,154	298,837	54.5%	126,288	23.0%	172,549	31.5%

at or below 200% FPL = 54.5%

enrolled in Medicaid = 23.0%

“the working poor” = 31.5%

Medicaid

- Medicaid is a state-run, federally subsidized medical insurance program that provides coverage for some of the medically indigent.
 - Eligible for Medicaid:
 - » Low Income Pregnant Women
 - Low income defined as <200% FPL
(\$3,067/month for a family of 4 in 2003)
 - » Low Income Children (LaCHIP)
 - » Very Poor Parents
 - Less than 16% of FPL
(\$245/month for a family of 4)
 - » Persons with certain disabilities
 - Ineligible for Medicaid:
 - » Parents -- greater than 16% of FPL
 - » Childless Adults -- ineligible at any income

The Uninsured

Of the 172,549 “working poor” in Region IV, some who are working full-time may be insured through an employer.

Many are not working full-time or can’t afford their share of the premiums.

UMC Catchment Parish	2000 Population ¹	Households ⁵	Average Persons per Household ⁵	UL Lafayette HICA Est. Uninsured ⁶	% ⁶
Acadia	58,861	21,142	2.78	16,648	28.3%
Evangeline	35,434	12,736	2.78	10,335	29.2%
Iberia	73,266	25,381	2.89	15,810	21.6%
Lafayette	190,503	72,372	2.63	25,797	13.5%
St. Landry	87,700	32,328	2.71	19,848	22.6%
St. Martin	48,583	17,164	2.83	12,889	26.5%
Vermillion	53,807	19,382	2.78	10,655	19.8%
Total	548,154	200,505	2.73	111,982	20.4%

uninsured = 20.4% ↑

Source: Louisiana HABITS, a direct consumer survey approach developed by HICA at UL Lafayette.

Who Are the “Under-insured” in Region IV?

- **Medicaid enrollees** may be considered “under-insured” because their coverage **pays far below “usual and customary”** medical fees.
 - 126,288 (23.0% of the population of Region IV) qualifying indigent persons are covered by Medicaid.
- **Medicare enrollees** may be considered “under-insured” because **prescription medications are not yet covered**.
 - 67,350 (12.3% of the population of Region IV) qualifying elderly or disabled persons covered by Medicare.

Who Are the “Well-Insured” in Region IV?

- Subtracting the uninsured and under-insured populations from the total leaves **242,534 (44.2%)** – fewer than half – who might be said to be “well insured” against the risks of unexpected health-related expenses, and therefore able to fully participate in the healthcare marketplace.

When fewer than half of the residents of a region are able to fully participate in a healthcare marketplace, that marketplace is bound to show the effects of economic stress!

*II. What is the “Region IV
Healthcare Marketplace”?
-- Healthcare Providers*

Region IV Healthcare Marketplace: Healthcare Providers

- 1,019 licensed physicians (*source: LSBME*) and directed staff
 - General Practice Physicians, Specialists, and Surgeons
 - Nurse Practitioners and Physician Assistants
- 26 Hospitals (*source: LHA*)
 - 15 general acute care (2,419 licensed beds) [including UMC]
 - 1 specialty (Women's & Children's) acute care (93 licensed beds)
 - 1 critical access hospital acute care (25 licensed beds)
 - 4 long-term acute care (121 licensed beds)
 - 3 rehabilitation (34 licensed beds)
 - 2 psychiatric (80 licensed beds) [including UMC]
- Many other important professional and institutional healthcare providers including dentists, mental health professionals, nursing homes, home health agencies, pharmacies, ...

Physicians and Acute Care Beds Are Not Well-Distributed in Region IV

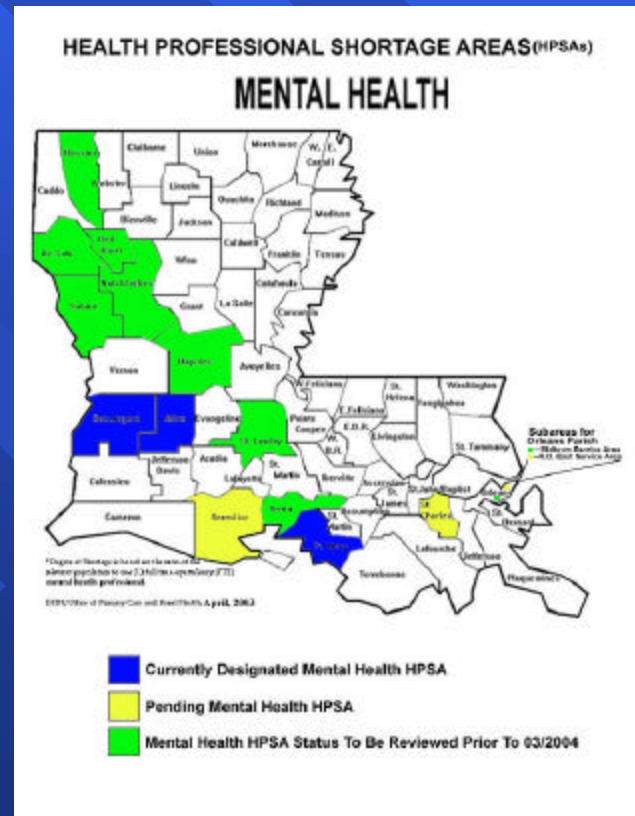
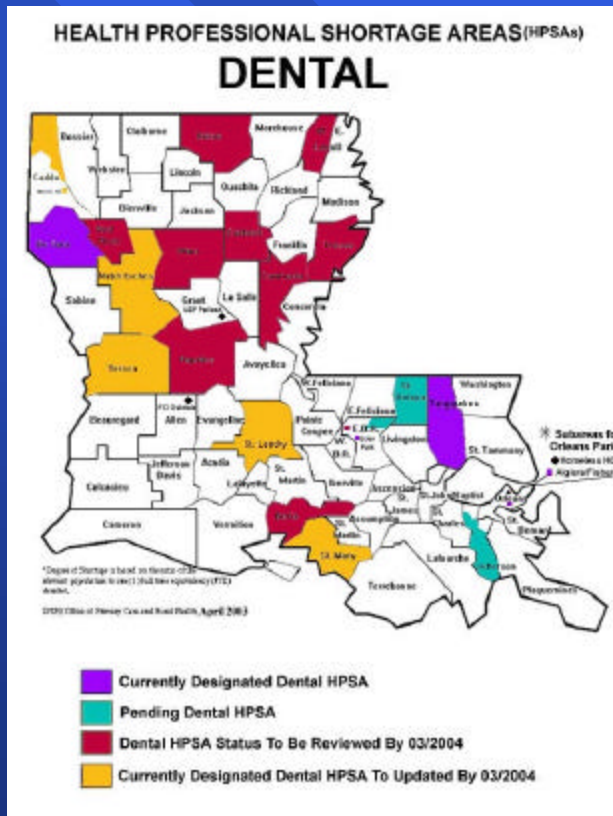
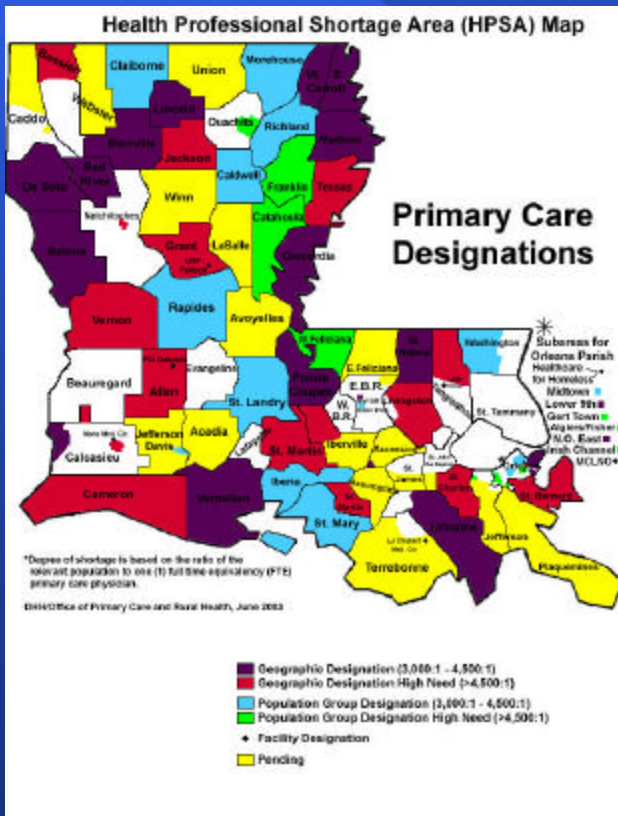
UMC Catchment Parish	2000 Population ¹	Total Physicians Available ⁸	Persons Served per Physician	Total Acute Care Beds Available ⁹	Acute Care Beds per 10,000 Population
Acadia	58,861	49	1,201	217	37
Evangeline	35,434	44	805	321	91
Iberia	73,266	109	672	237	32
Lafayette	190,503	617	309	1,100	58
St. Landry	87,700	148	593	436	50
St. Martin	48,583	15	3,239	25	5
Vermillion	53,807	37	1,454	201	37
Total	548,154	1,019	538	2,537	46

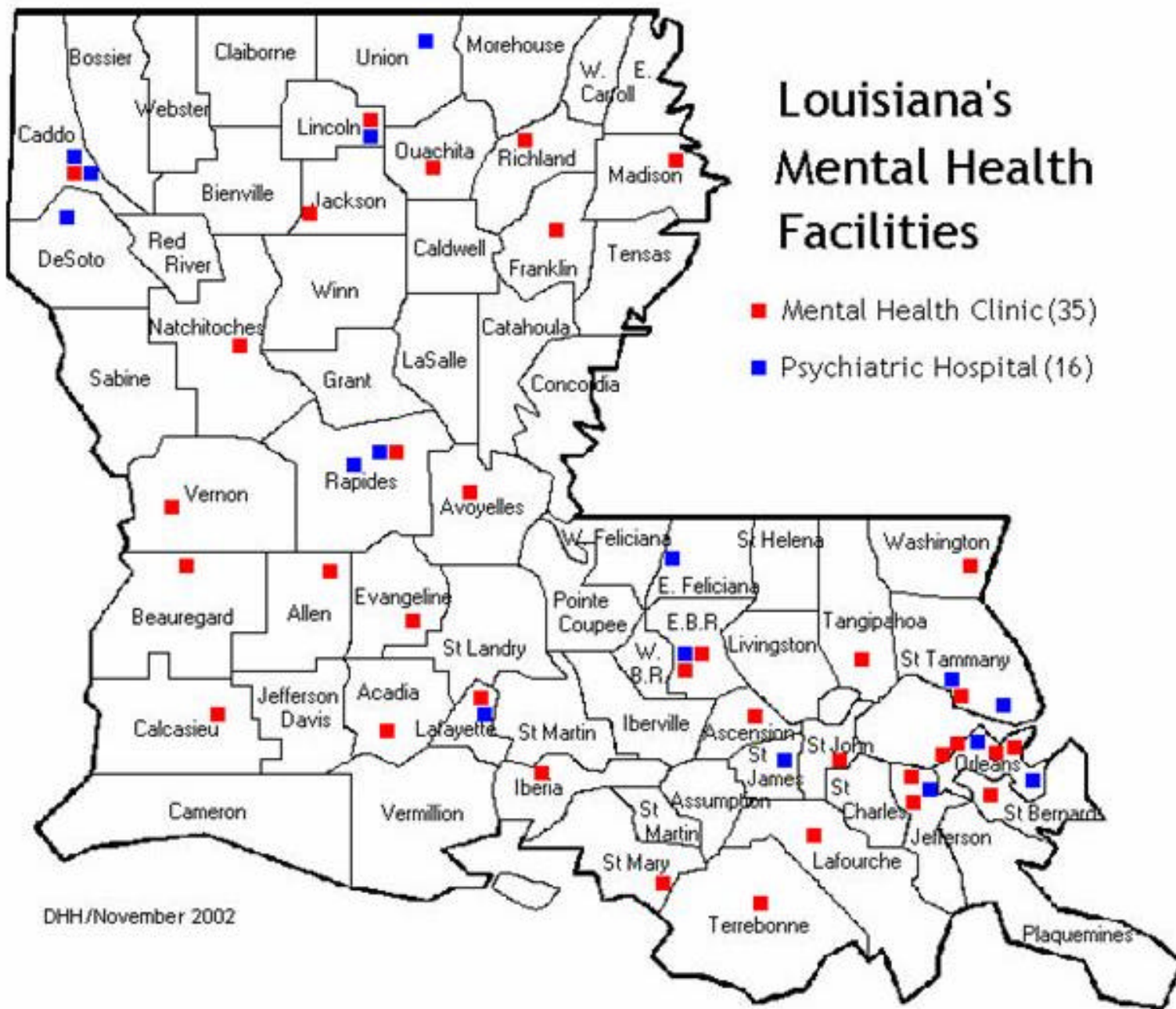
persons served per physician = 538

acute hospitals per 10,000 persons = 46

Health Professional(s) Shortage Area:

- any of the following which HHS determines has a shortage of health professional(s):
- (1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services);
 - (2) a population group; or
 - (3) a public or nonprofit private medical facility.





Federally-Sponsored Providers in Region IV

- Veterans Affairs Out-Patient Clinic in Lafayette
- 3 Federally Qualified Health Centers (FQHCs)
 - New Iberia
 - Gueydan
 - Opelousas
- 1 federally designated Critical Access Hospital

State-Sponsored Providers in Region IV

- University Medical Center,
operated by LSUHSC-NO HCSD
 - 208 licensed beds, including 20 psychiatric beds
at Joseph Henry Tyler Jr. Mental Health Center
 - Emergency Department & multiple outpatient clinics
 - 75 faculty (46 FTE salaried faculty physicians)
 - 65 interns and Graduate Medical Education residents
(~6.5 FTE physicians in advanced training)
- 9 Parish Health Units, operated by Louisiana OPH
 - 3 in St. Landry (Opelousas, Eunice, and Melville)
 - 1 each in Acadia, Evangeline, Iberia, Lafayette,
St. Martin, & Vermilion

*III. The “Medically Indigent”
and
University Medical Center*

The Medically Indigent or Needy in Federal & State Law

- **“Medically Indigent”** : A person who is too impoverished to meet **medical expenses**. The term currently refers to persons whose income is too low for them to afford routine medical care, although they are able to pay for their basic living costs, or to persons with generally adequate income who suddenly face catastrophic medical bills.

[The Aspen Dictionary of Health Care Administration, 1989.]

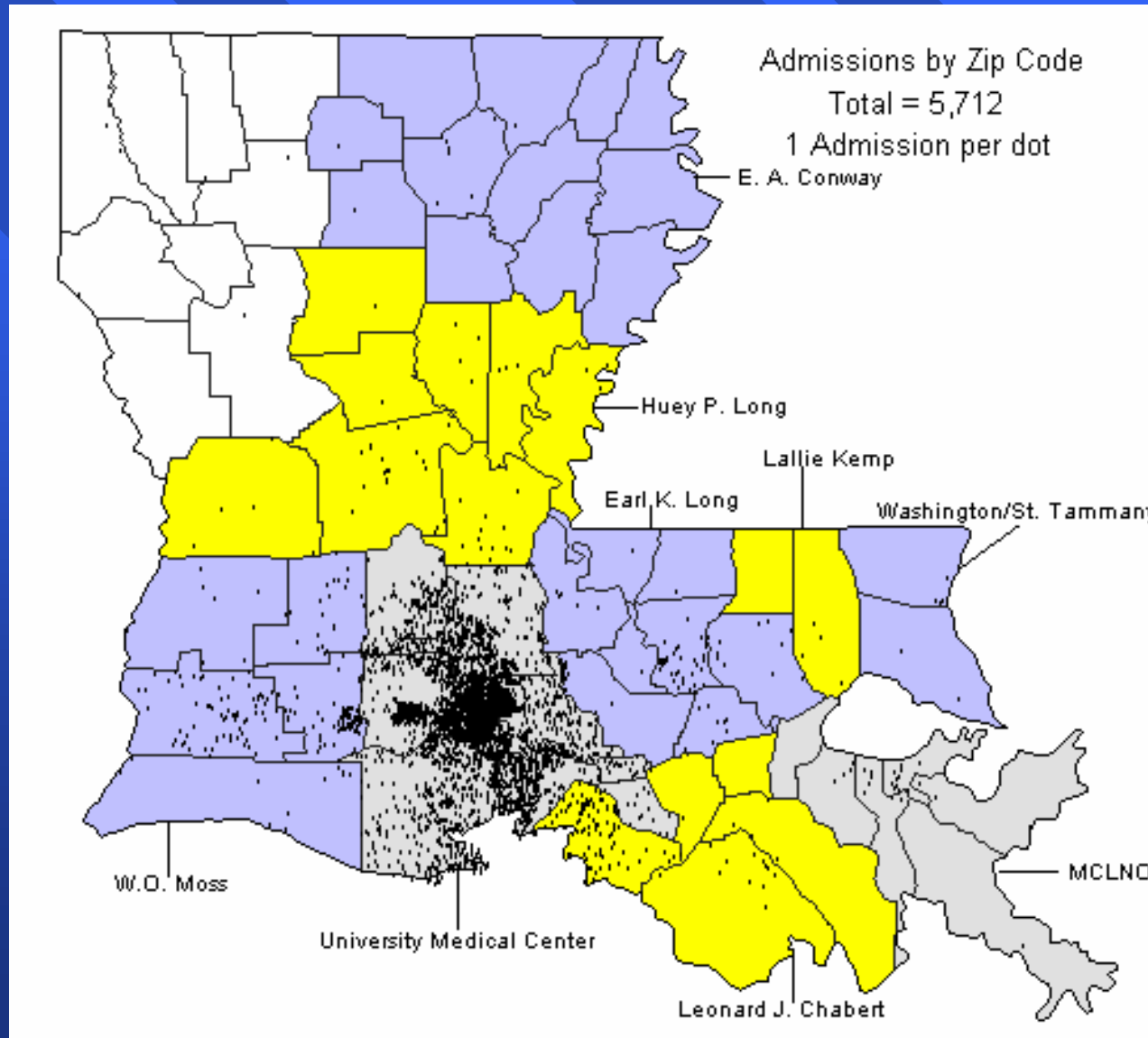
- **“Medically Needy”**: A term in the Medicaid program for persons who have enough income and resources to pay their basic living expenses (and so not need public assistance) but not enough to pay for **medical care**. Medicaid law requires that the standard for income used by a state to determine if someone is medically needy cannot exceed 133% of the maximum amount paid to a family of similar size under the Aid to Families with Dependent Children (AFDC) program [now called “Temporary Aid to Needy Families (TANF)”].

[Ibid.]

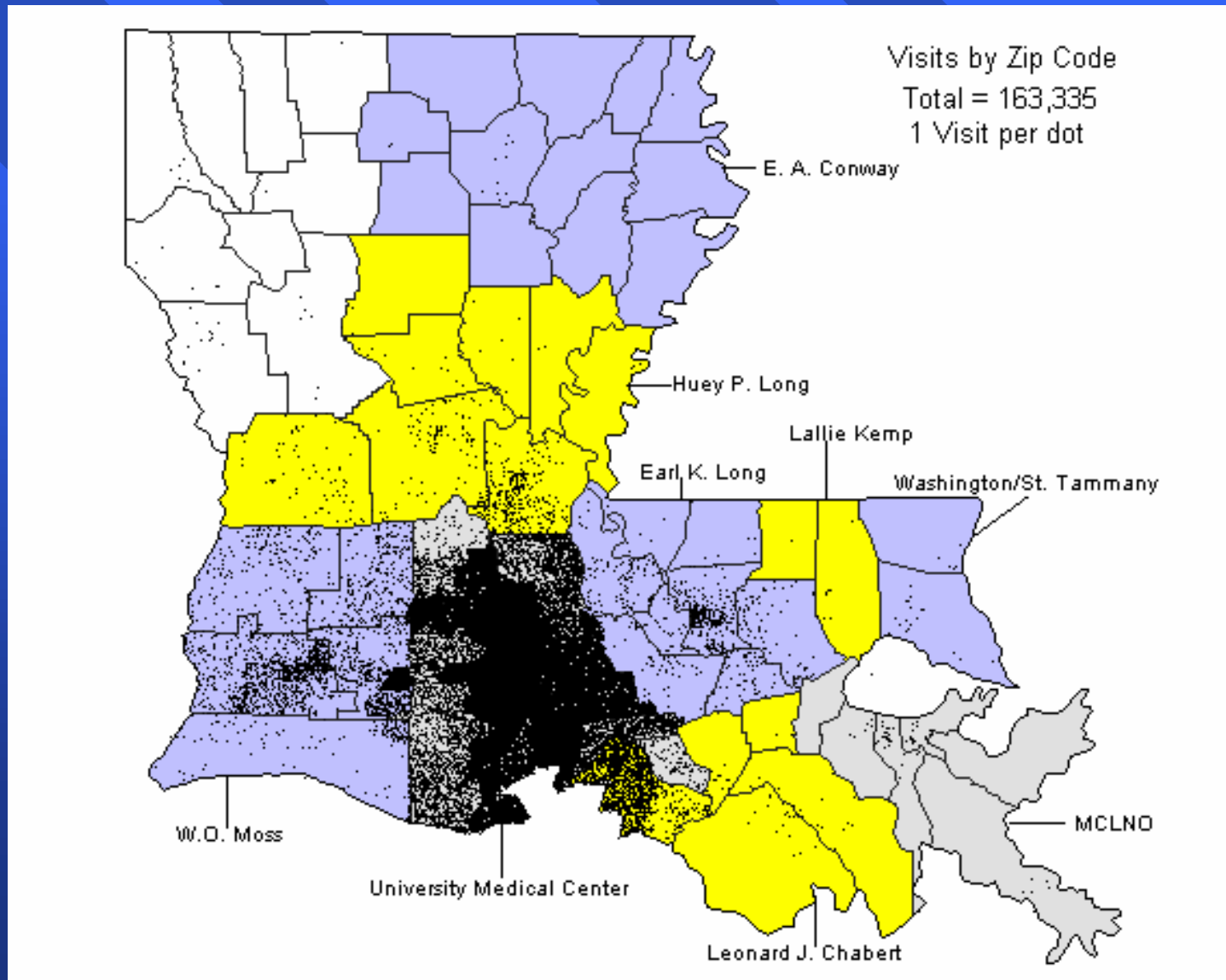
The Medically Indigent or Needy & Louisiana's Charity Hospitals

- “Any *bona fide* resident of the state of Louisiana who is medically indigent or medically needy shall be eligible for any form of treatment by any general hospital owned and operated by the State of Louisiana.” *[LRS 46:6, Section 6. Act 62 of 1926]*
- The [state-owned “charity”] hospitals ... shall be operated primarily for the medical care of the uninsured and medically indigent residents of the state and others in need of medical care and as teaching institutions. *[LRS 17:1519.1.A.(1)]*
- **University Medical Center in Lafayette**, part of the 8-hospital charity hospital system currently administered by LSUHSC-NO HCSD, has as its mandate the care of Louisiana residents who are medically indigent, those in households earning at or below 200% of FPL (Federal Poverty Level).

UMC – Lafayette Admissions



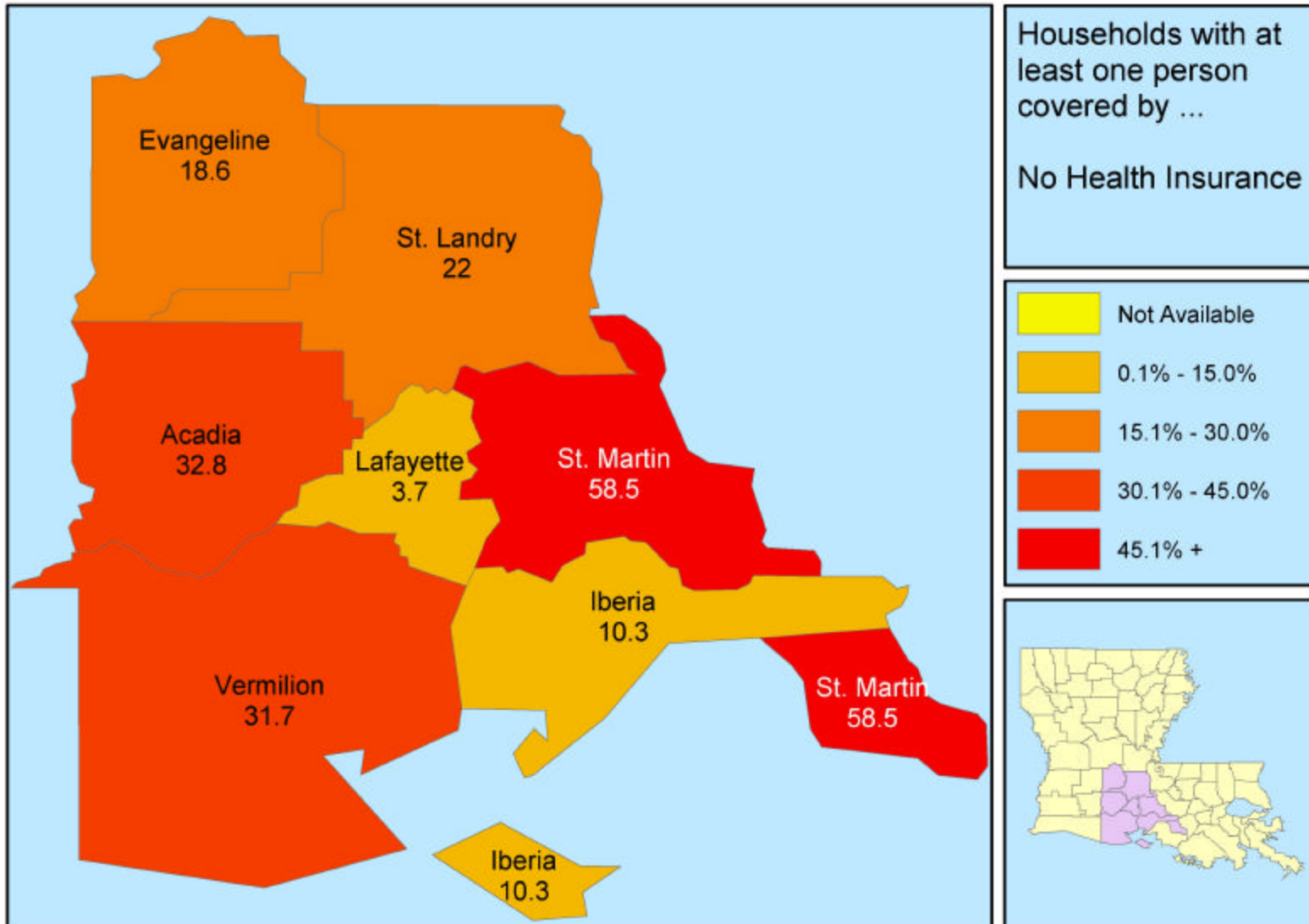
UMC – Lafayette Outpatient Visits



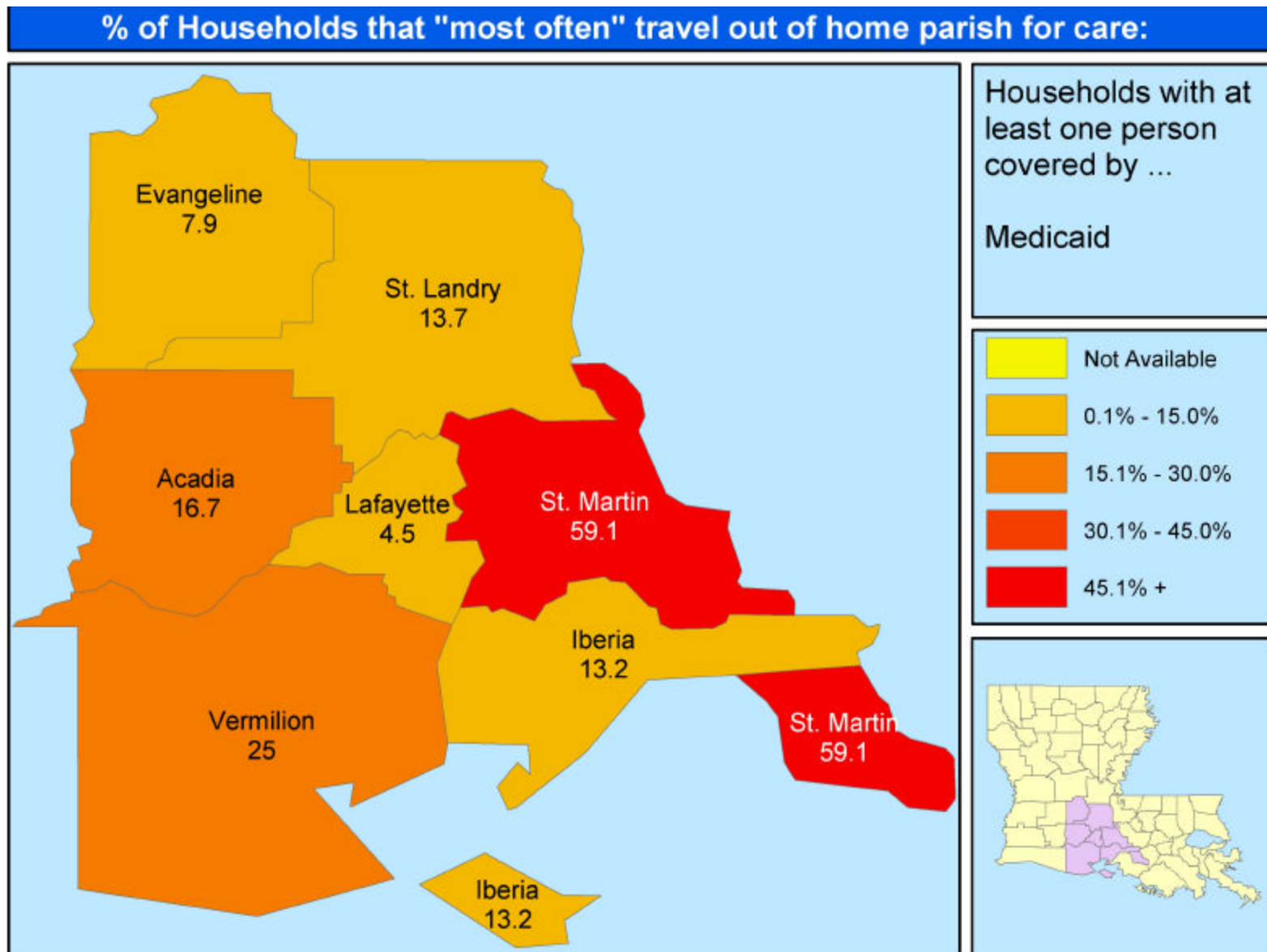
IV. Where Do Patients Go for Care?

Where do the Uninsured go for care?

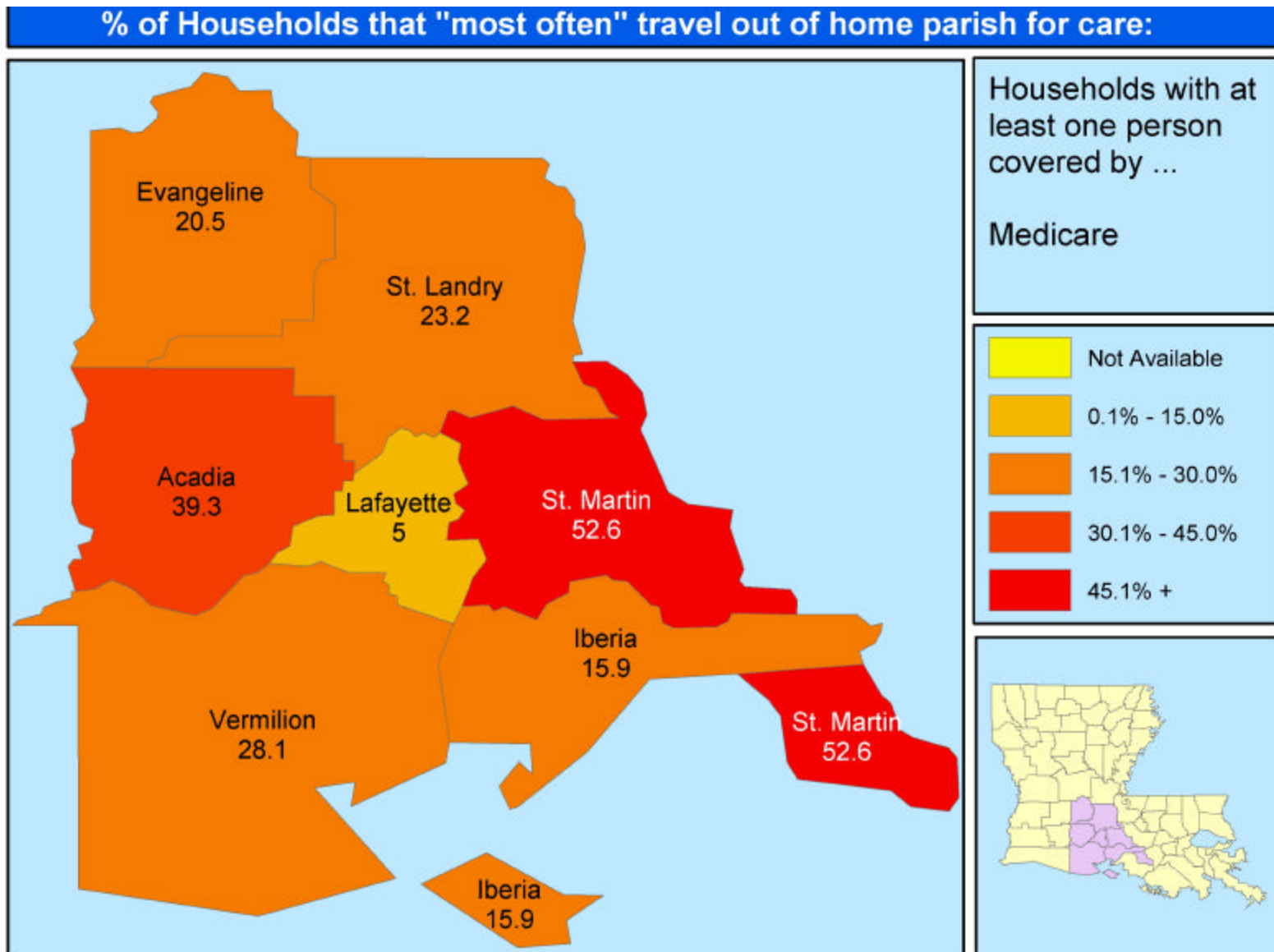
% of Households that "most often" travel out of home parish for care:



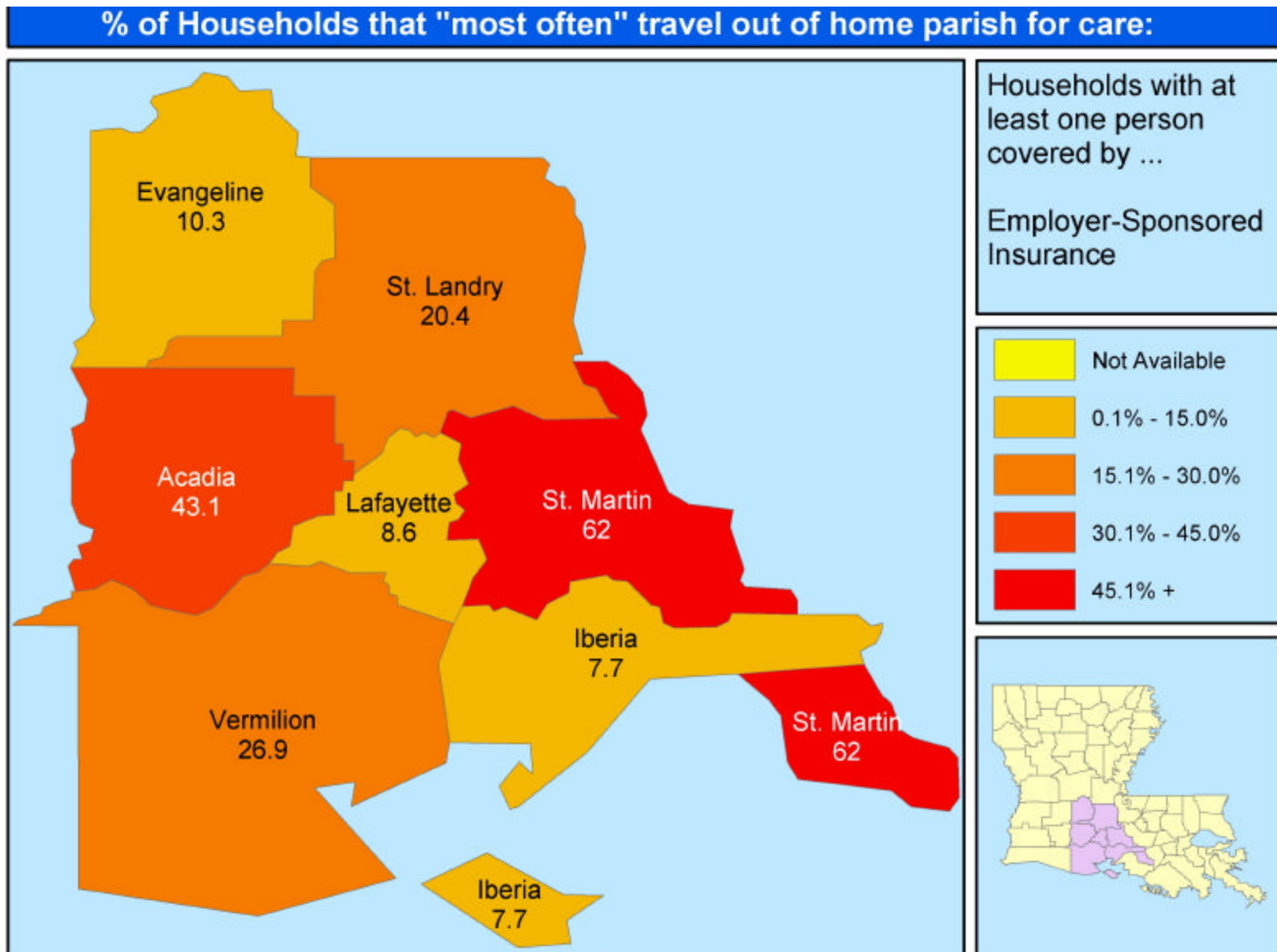
Where do Medicaid enrollees go for care?



Where do Medicare enrollees go for care?



Where do employer-insureds go for care?



The Future?

“It is very hard to make predictions, especially about the future.”

Yogi Berra

*“The best way to predict the
future is to invent it!”*

Alan Kay

HICA – Starting Soon

■ Healthy Start

Project:

Provision of healthcare and health education services for medically indigent and at-risk mothers-to-be, with follow-up over two-year period following birth.

Innovation:

Electronic health records and web-based data collection tools, coupled with geographic information systems use.

HICA's Purpose:

Evaluation of effectiveness and efficiency of case and care management in nurse-family partnership program.

Funding:

Funds committed by federal Health Resources & Services Administration (HRSA); contract with The Family Tree.

HICA – Starting Soon (continued)

■ Safe Schools / Healthy Students

Project:

Provision of safe and healthy school environments.

Innovation:

Gathering of structure, process, and outcome indicator data via field interviewer support, web-based data collection tools, coupled with geographic information systems use.

HICA's Purpose:

Evaluation of effectiveness and efficiency of interventions in Lafayette Parish School System.

Funding:

Funds committed from federal Department of Education, Department of Health and Human Services, and Department of Justice; contract with Lafayette Parish School System.

HICA–Looking Ahead

■ Passive ER Surveillance

Definition:

Acquisition, analysis, and reporting of (electronic) data already gathered in the normal course of ER operations.

Innovation:

Regional pooling of ER data coupled with data mining.

HICA's Purpose:

Recognition of patterns of ER utilization, including events of interest to Public Health and also non-emergency use of ER resources.

Funding:

Funds sought from BORSF ITRS via competitive proposal; will also be sought from federal Health Resources & Services Administration (HRSA).

*“I believe that
the quality of decision making
about the future
of Louisiana’s health
rests at least in part on
the systems and technology we use
to manage health information. ...*

... We who work in this field must accept a share of the responsibility for inventing a brighter future for the health of Louisiana.”

Philip Caillouet

*Questions, Comments,
or Suggestions?*

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