

Louisiana eHealth Conference

Informed Decision-Making in Healthcare



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March 10, 2005*



Outline of This Presentation

- Louisiana Health Status –
(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
- HICA & the Region IV Healthcare Marketplace
- HICA's Ongoing and Future Projects

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

<http://www.unitedhealthfoundation.org/shr2004>

Health Status – Risks and Outcomes

■ Risk Factors - Personal Behaviors

- Prevalence of Smoking
(% of population)
- Motor Vehicle Deaths
(per 100,000,000 miles driven)
- Prevalence of Obesity
(% of population)
- High School Graduation
(% of incoming 9th graders)

■ Risk Factors - Community Environment

- Violent Crime
(per 100,000 population)
- Lack of Health Insurance
(% without health insurance)
- Infectious Disease
(cases per 100,000 population)
- Children in Poverty
(% of < 18 poverty population)
- Occupational Fatalities
(deaths per 100,000 workers)

<http://www.unitedhealthfoundation.org/shr2004/components/RiskFactors.html>

<http://www.unitedhealthfoundation.org/shr2004/components/Outcomes.html>

■ Risk Factors - Health Policies

- Public Health Spending
(% of total health expenditures)
- Per Capita Public Health Spending
(\$ per person)
- Adequacy of Prenatal Care
(% of pregnant women receiving)

■ Outcomes

- Limited Activity Days
(days in last 30 days)
- Cardiovascular Deaths
(deaths per 100,000 population)
- Cancer Deaths
(deaths 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 50th in 2004

From the United Health Foundation State Health Rankings - 2004 Edition:

- “Louisiana is 50th this year, a position it has held for 14 of the 15 editions of this report.”
- “It was 49th in 2003.”
- “Louisiana is 50th 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.”

<http://www.unitedhealthfoundation.org/shr2004/states/Louisiana.html>

Louisiana ... far from a leader

From the United Health Foundation State Health Rankings - 2004 Edition:

- “It ranks in the bottom five states on six of the 18 measures:
 - high prevalence of smoking at 26.5 percent of the population.
 - high rate of uninsured population at 20.6 percent.
 - high percentage of children in poverty at 25.5 percent of persons under age 18.
 - high rate of cancer deaths at 224.2 deaths per 100,000 population.
 - high infant mortality rate at 9.7 deaths per 1,000 live births.
 - high premature death rate at 10,279 years of potential life lost before age 75 per 100,000 population.”

<http://www.unitedhealthfoundation.org/shr2004/states/Louisiana.html>

Louisiana ... far from a leader (continued)

From the United Health Foundation State Health Rankings - 2004 Edition:

- “It also ranks in the bottom ten states for:
 - high rate of motor vehicle deaths.
 - low high school graduation rate.
 - high violent crime rate.
 - high incidence of infectious disease.
 - low support for public health.
 - high total mortality rate.”

<http://www.unitedhealthfoundation.org/shr2004/states/Louisiana.html>

Some Bright Spots, but Some Dark

From the United Health Foundation State Health Rankings - 2004 Edition:

- “The state's primary strength is access to adequate prenatal care, which is available to 79.2 percent of pregnant women.”
- “Health disparities are also a challenge, as only 69.1 percent of pregnant black women receive adequate prenatal care compared to 86.5 percent of pregnant white women.”

<http://www.unitedhealthfoundation.org/shr2004/states/Louisiana.html>

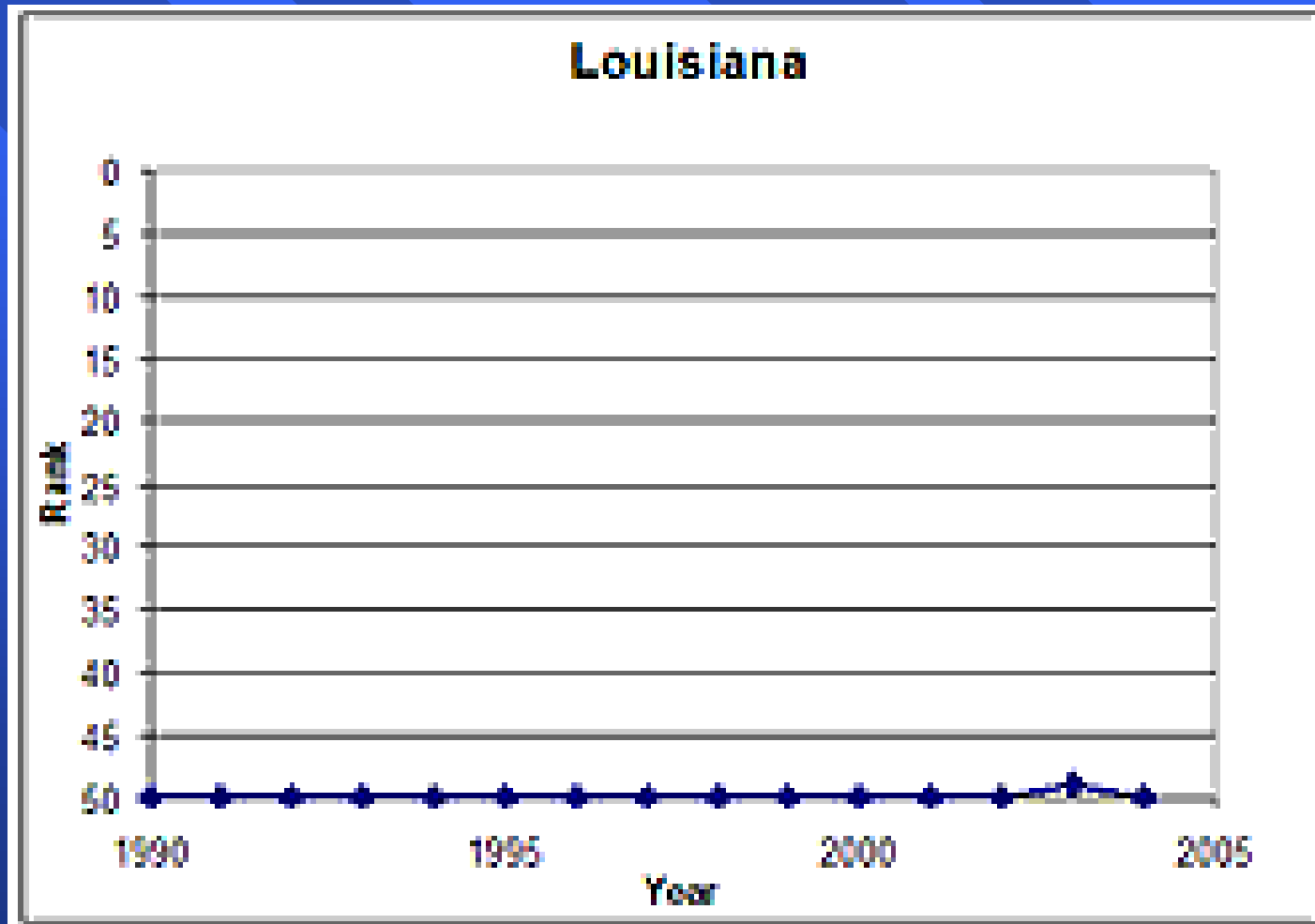
Not Keeping Pace with Improvements in Other States

From the United Health Foundation State Health Rankings - 2004 Edition:

- “In the past year,
 - The prevalence of obesity decreased from 25.5 percent to 24.8 percent of the population.
 - Per capita public health spending declined from \$35 to \$22 per person.”
- “Since 1990,
 - Access to adequate prenatal care has increased from 67.0 percent to 79.2 percent of pregnant women receiving adequate care.
 - The prevalence of obesity has more than doubled from 12.3 percent to 24.8 percent of the population.
 - The rate of cancer deaths has increased from 210.2 to 224.2 deaths per 100,000 population.
 - The infant mortality rate has decreased from 11.8 to 9.7 deaths per 1,000 live births, a smaller decrease than the nation as a whole.”

<http://www.unitedhealthfoundation.org/shr2004/states/Louisiana.html>

Can You Detect A Trend Here?



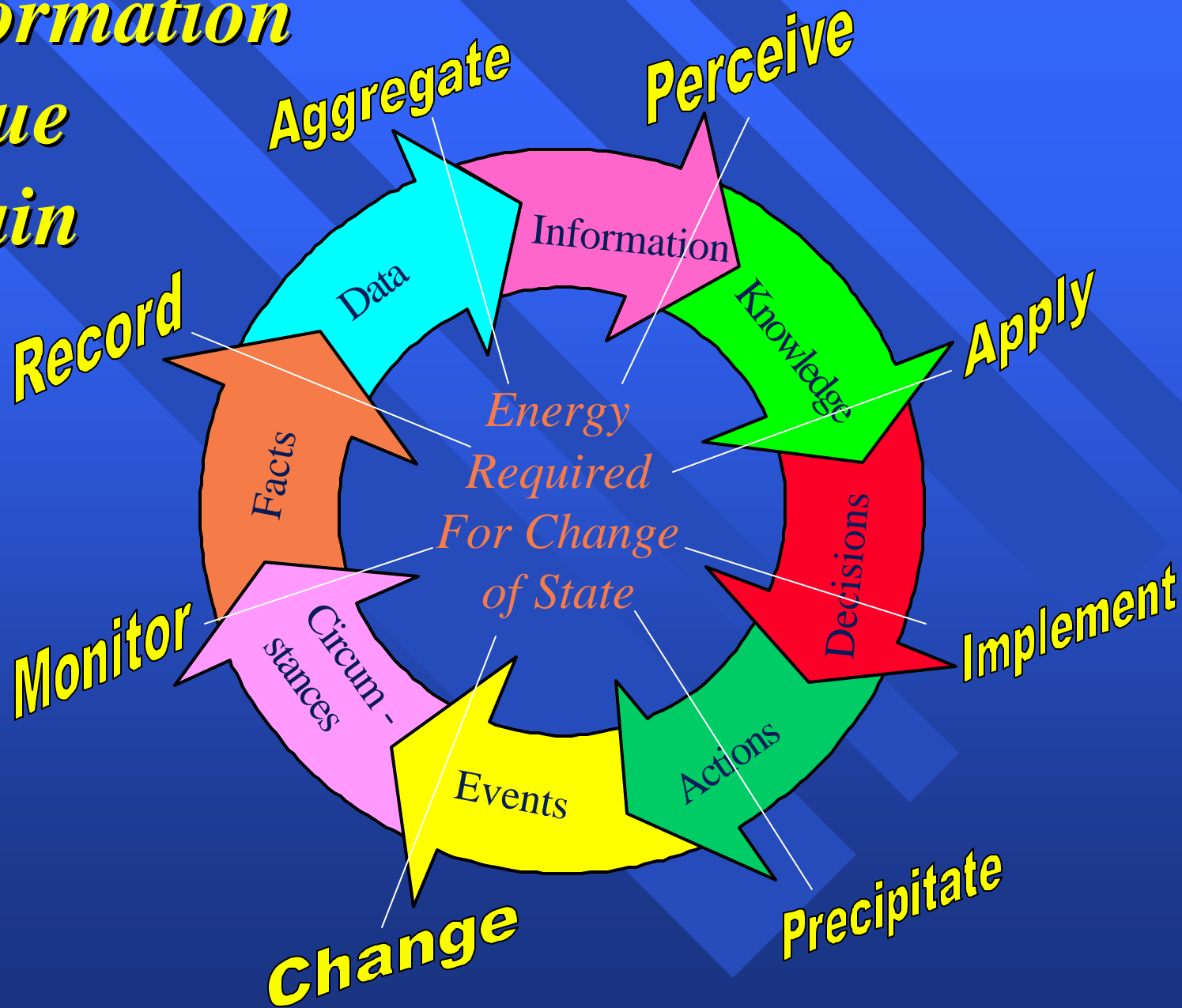
Source: United Health Foundation State Health Rankings - 2004 Edition

<http://www.unitedhealthfoundation.org/shr2004/states/Louisiana.html>

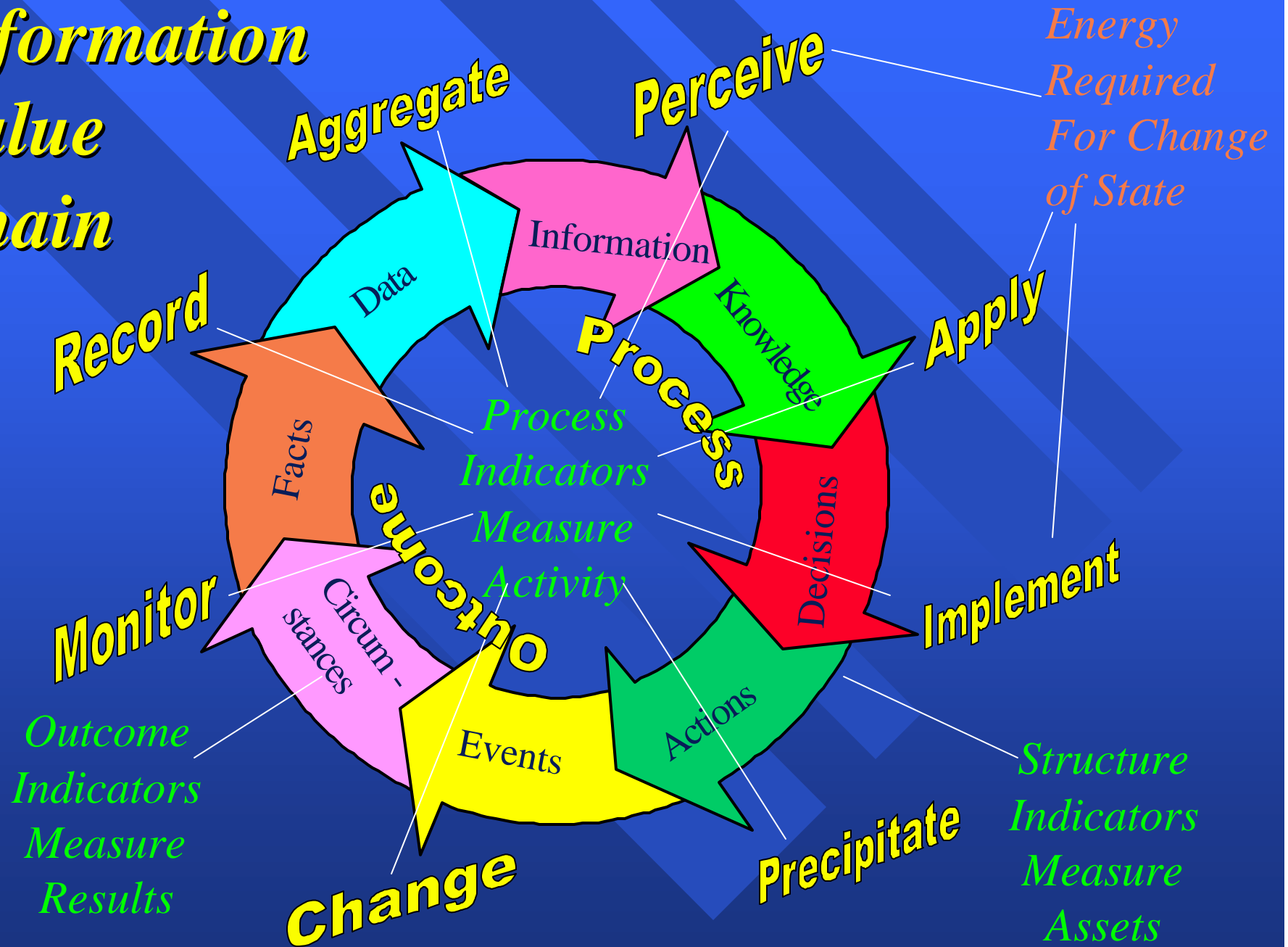
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Concept of Informed Decision Making

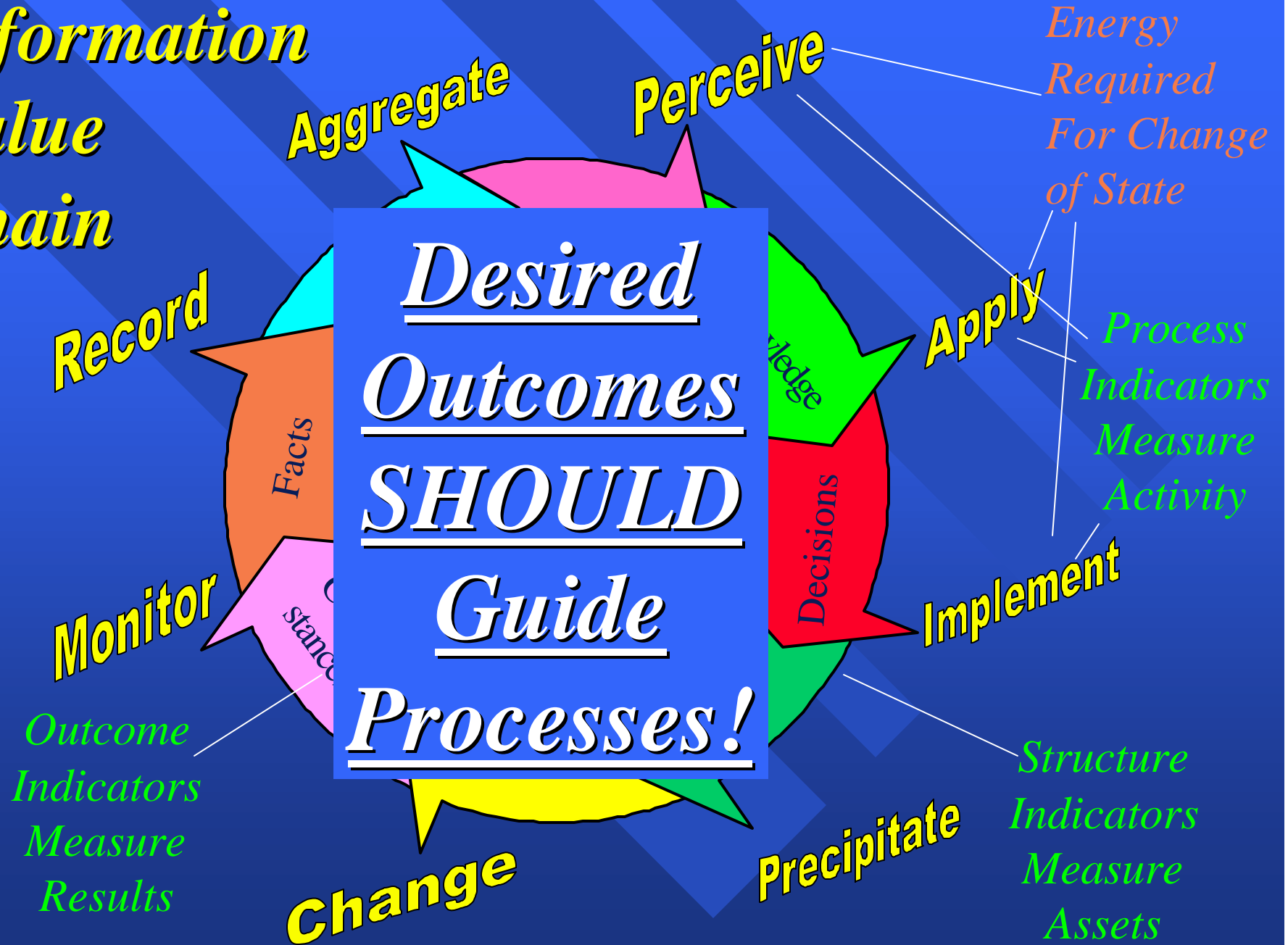
Information Value Chain



Information Value Chain

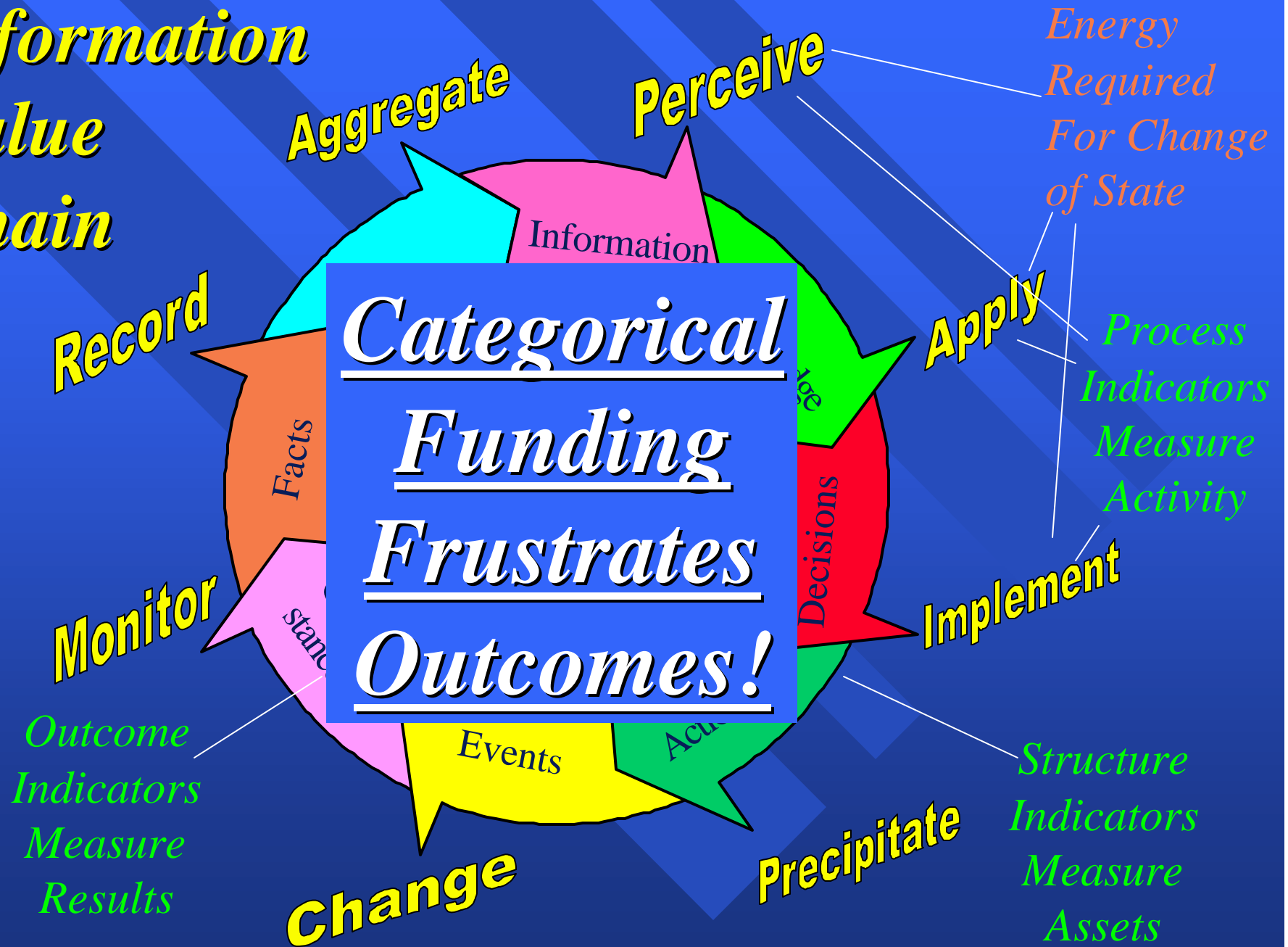


Information Value Chain

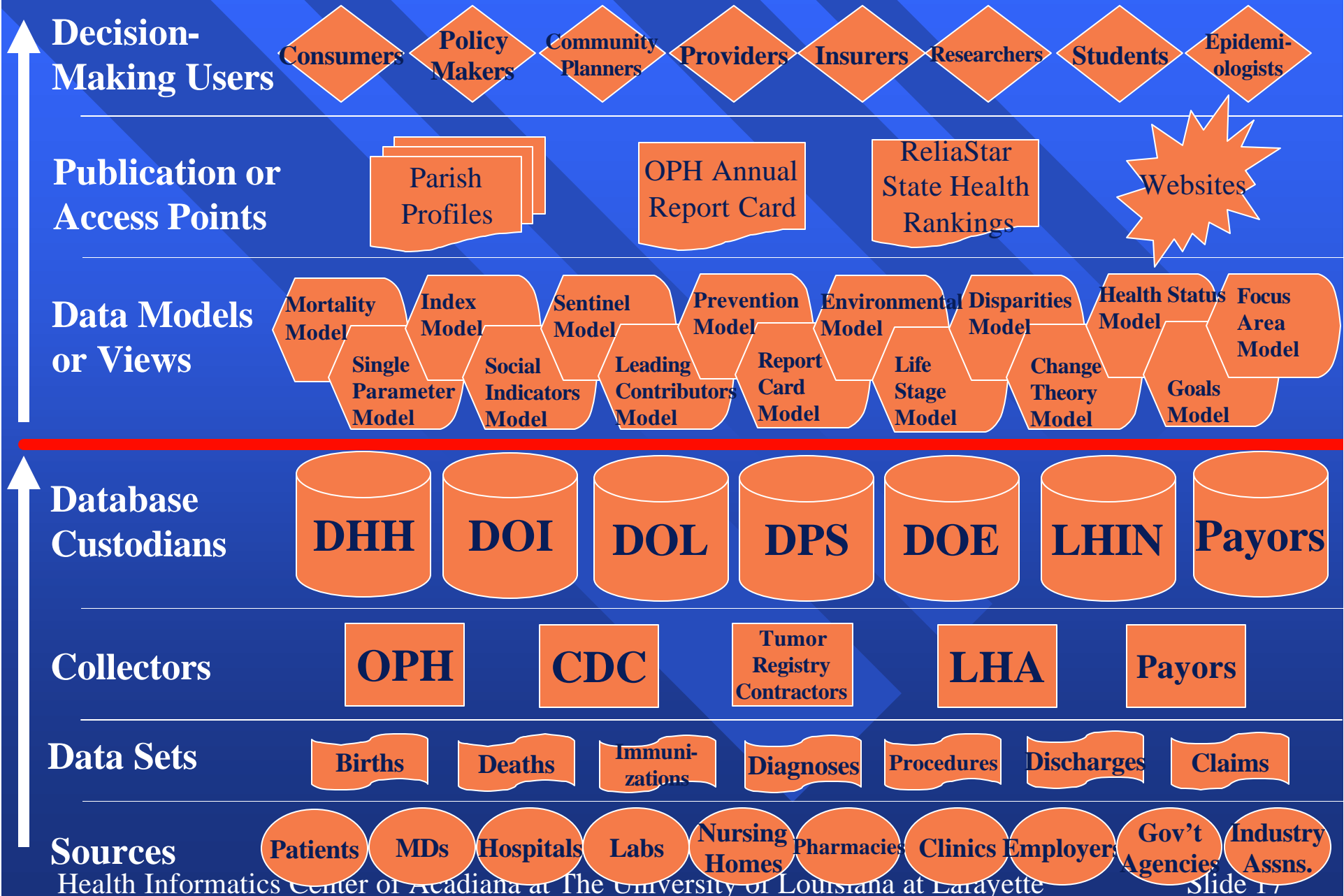


*Reality & Potential
of Informed
Health Decision Making
in Louisiana*

Information Value Chain



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

■ Name / Geography / History / Mission / Initiatives

- *Louisiana HABITS* - with LRHAP and Rapides Foundation (Healthcare Access Barriers In The State)
- Project CARES - with OMH, SWLHAEC, & LPSS (Violence Prevention in Schools)
- Community Empowerment Initiative - with ByNet
- Region IV Healthcare Planning Council / ... Consortium

■ Ongoing Projects

- Healthy Start - with The Family Tree
- Safe Schools / Healthy Students - with LPSS
- Louisiana DHH IS/IT Assessment - with DHH

■ Looking Ahead (*and looking for partners!*)

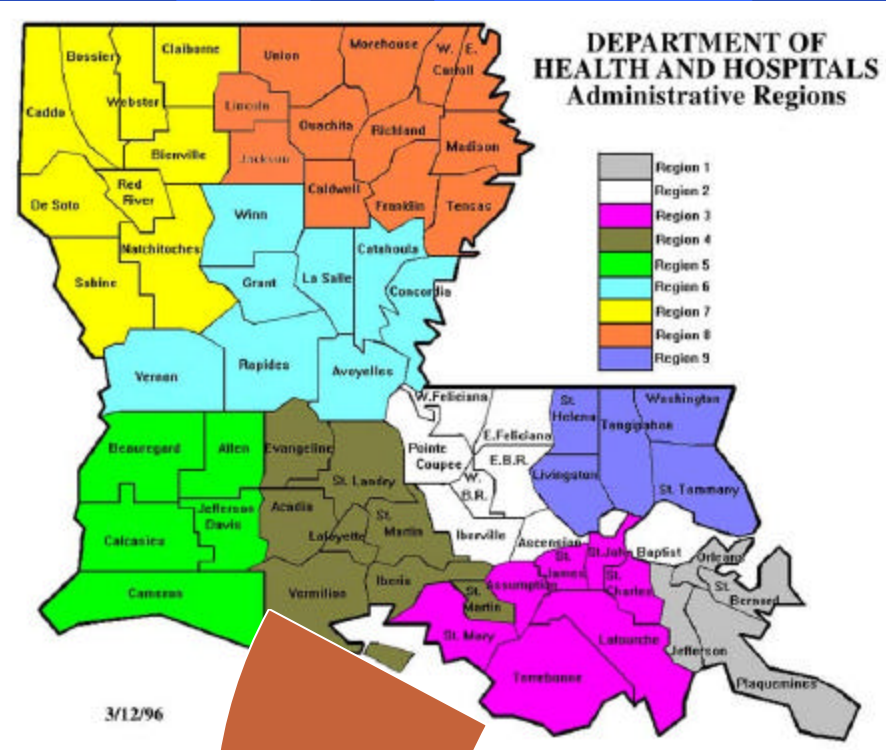
- Passive ER Surveillance
- Community Health Information Network
- Personal Electronic Health Records

HICA – The Name

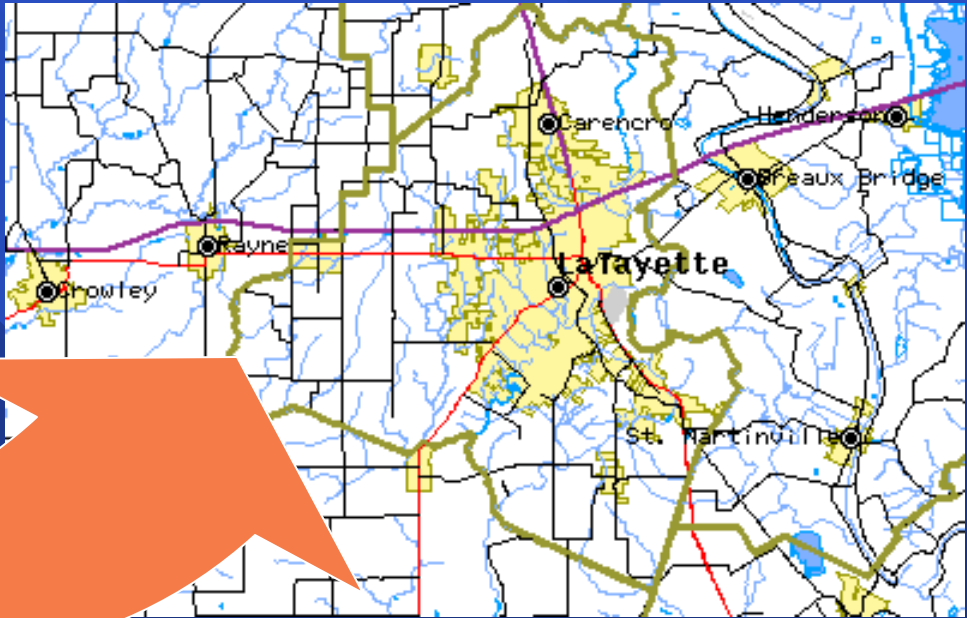
- “Medical Informatics” is the discipline which uses computer technology to gather, restructure, organize, and manage information to support medical research, education, and patient care.
- “Health Informatics” is the discipline which uses computer and communications technology to gather and analyze 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 – The Region & State



City Population ~ 115,000
Parish Population ~ 200,000
Region IV Population ~ 600,000
State Population ~ 4,500,000



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.

*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

*HICA and the
Region IV
Healthcare Marketplace*

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

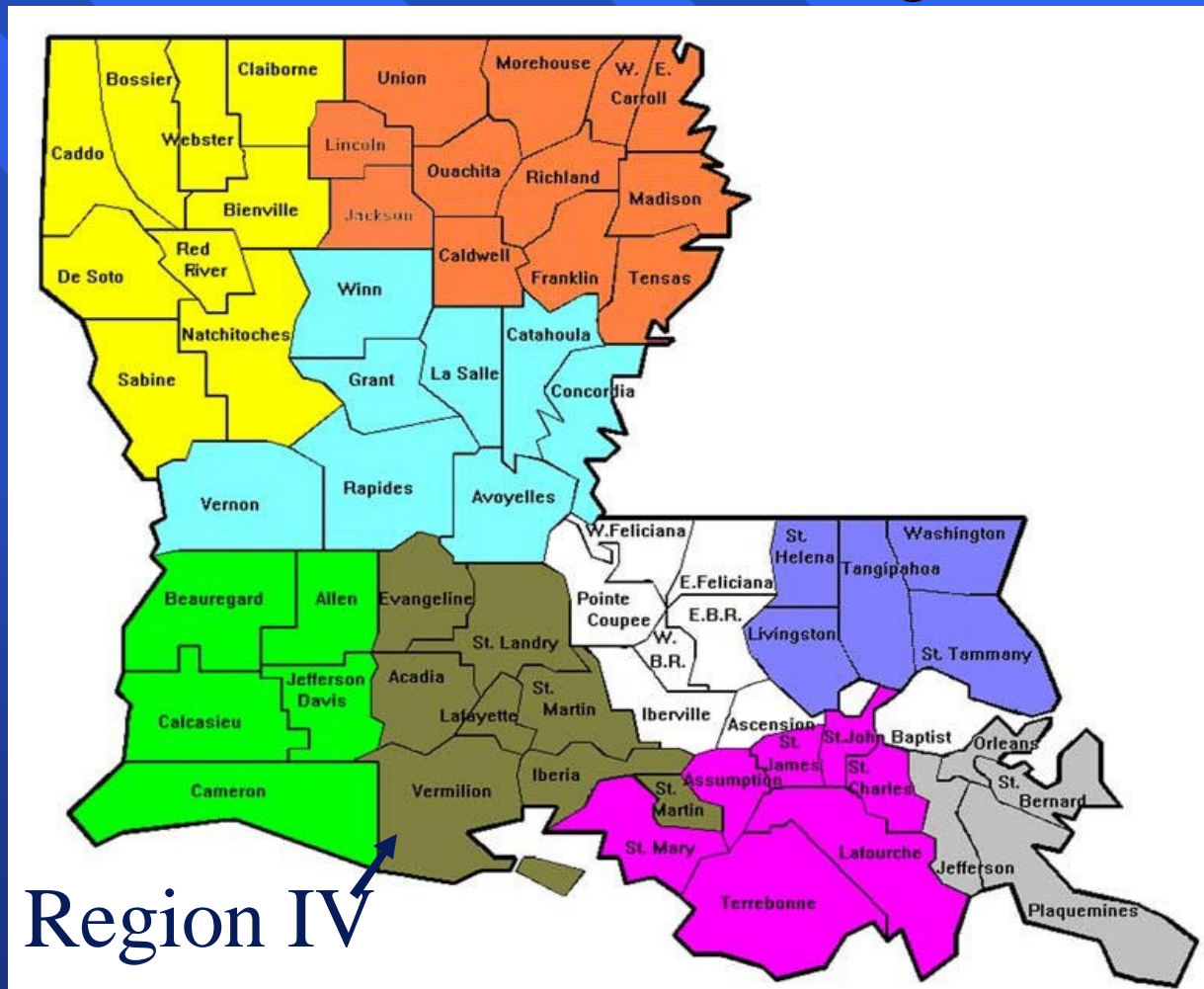
Iberia Parish

Lafayette Parish

St. Landry Parish

St. Martin Parish

Vermilion Parish



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.

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%

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.

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**

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!

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

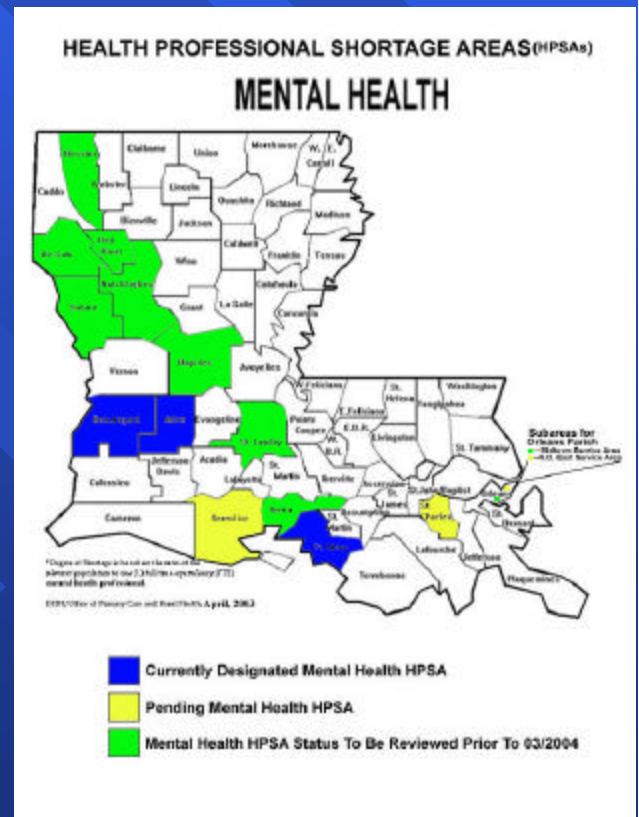
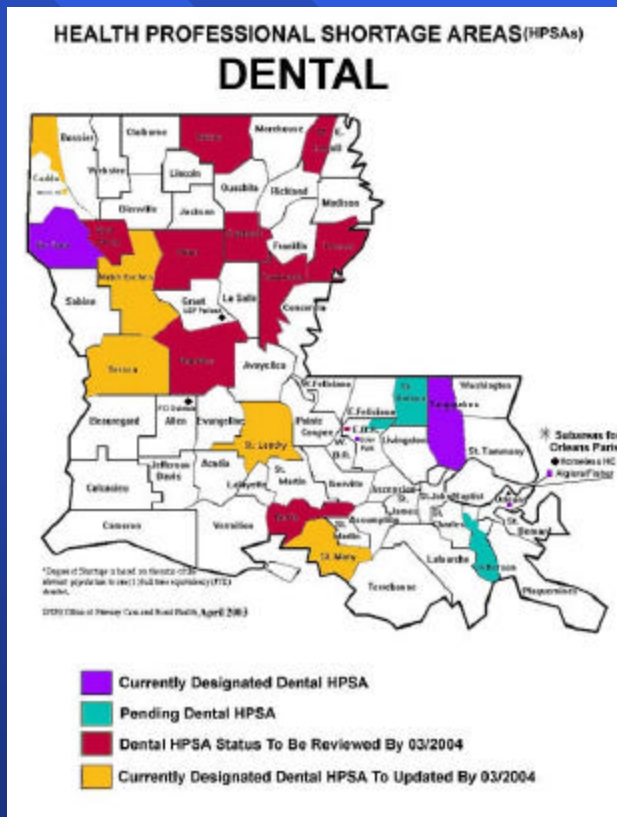
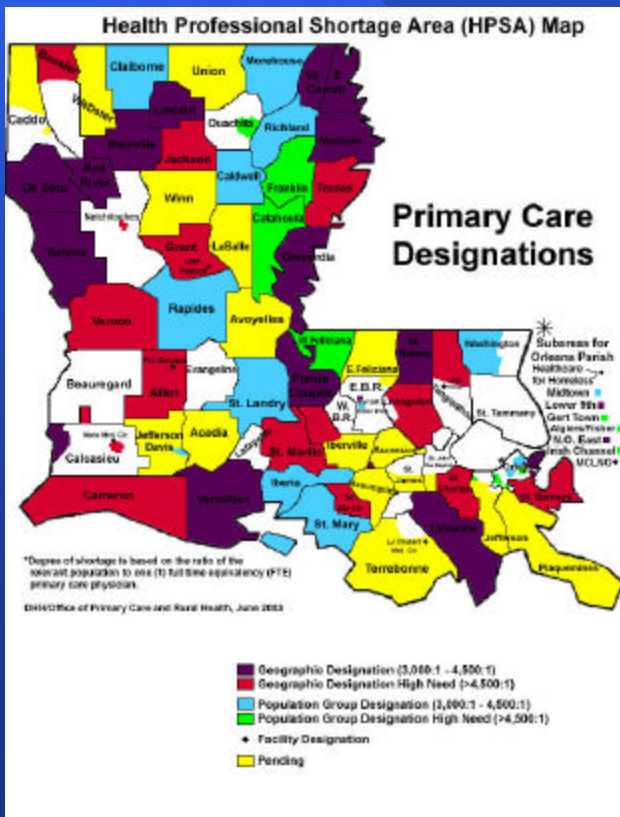
UMC Catchment Parish	2000 Population ¹	Total Physicians Available ⁸	Persons Served per Physician	Total Acute Care Beds Available ⁹	Acute Care Beds per 10,000 Population
Acadia	58,861	49	1,201	217	37
Evangeline	35,434	44	805	321	91
Iberia	73,266	109	672	237	32
Lafayette	190,503	617	309	1,100	58
St. Landry	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.



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.]

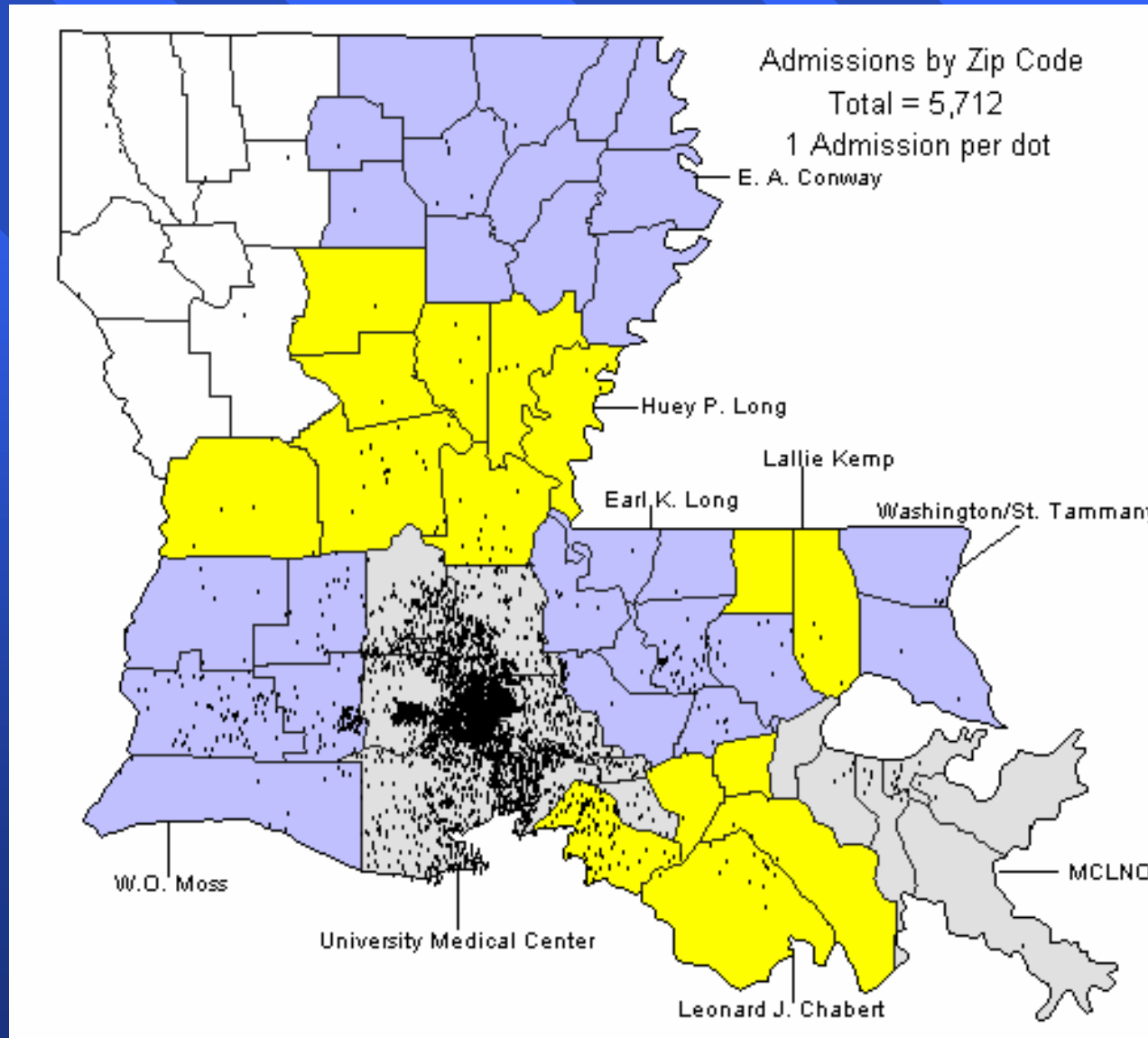
- **“Medically Needy”**: A term in the Medicaid program for persons who have enough income and resources to pay their basic living expenses (and so not need public assistance) but not enough to pay for **medical care**. Medicaid law requires that the standard for income used by a state to determine if 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.]

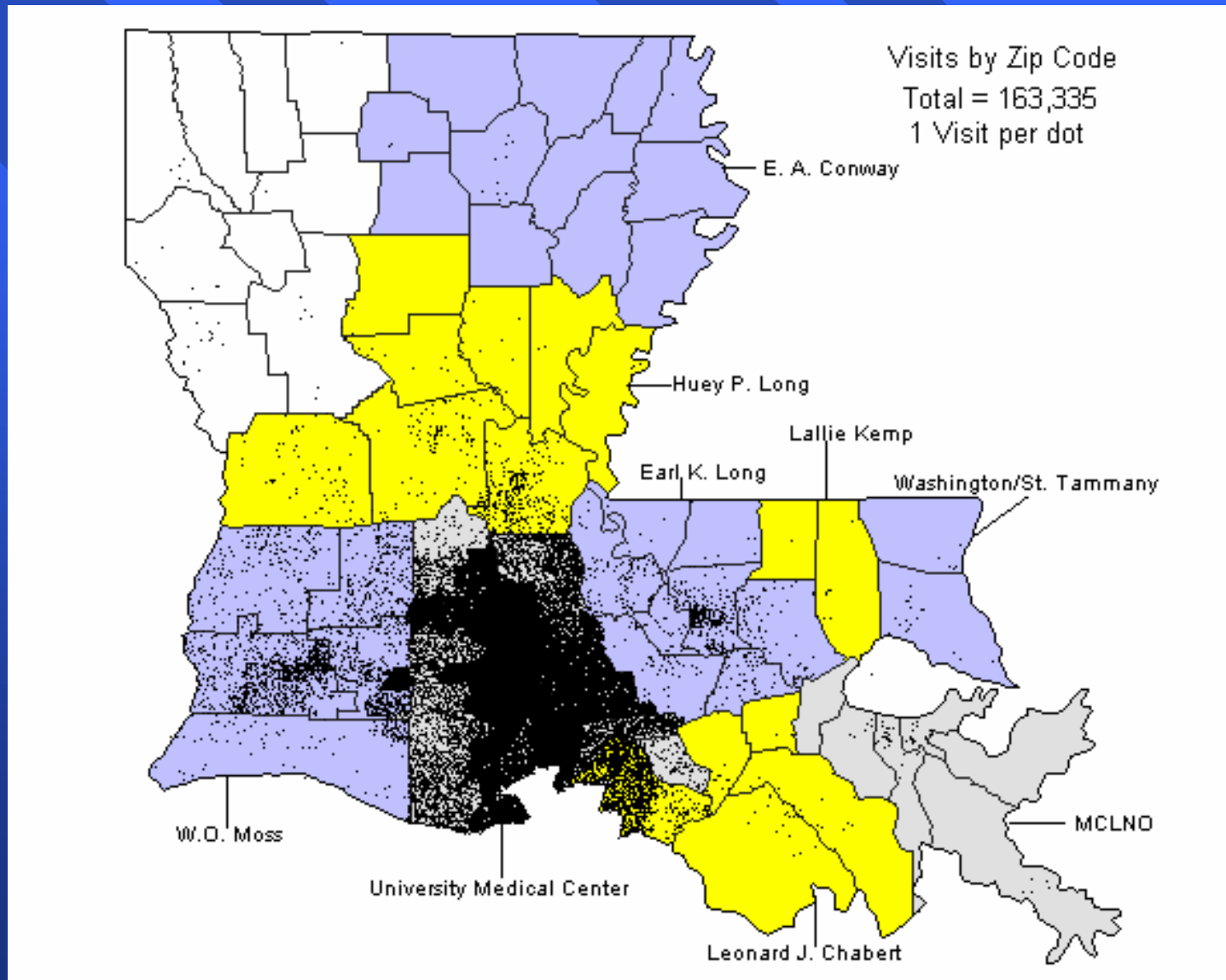
The Medically Indigent or Needy & Louisiana's Charity Hospitals

- “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

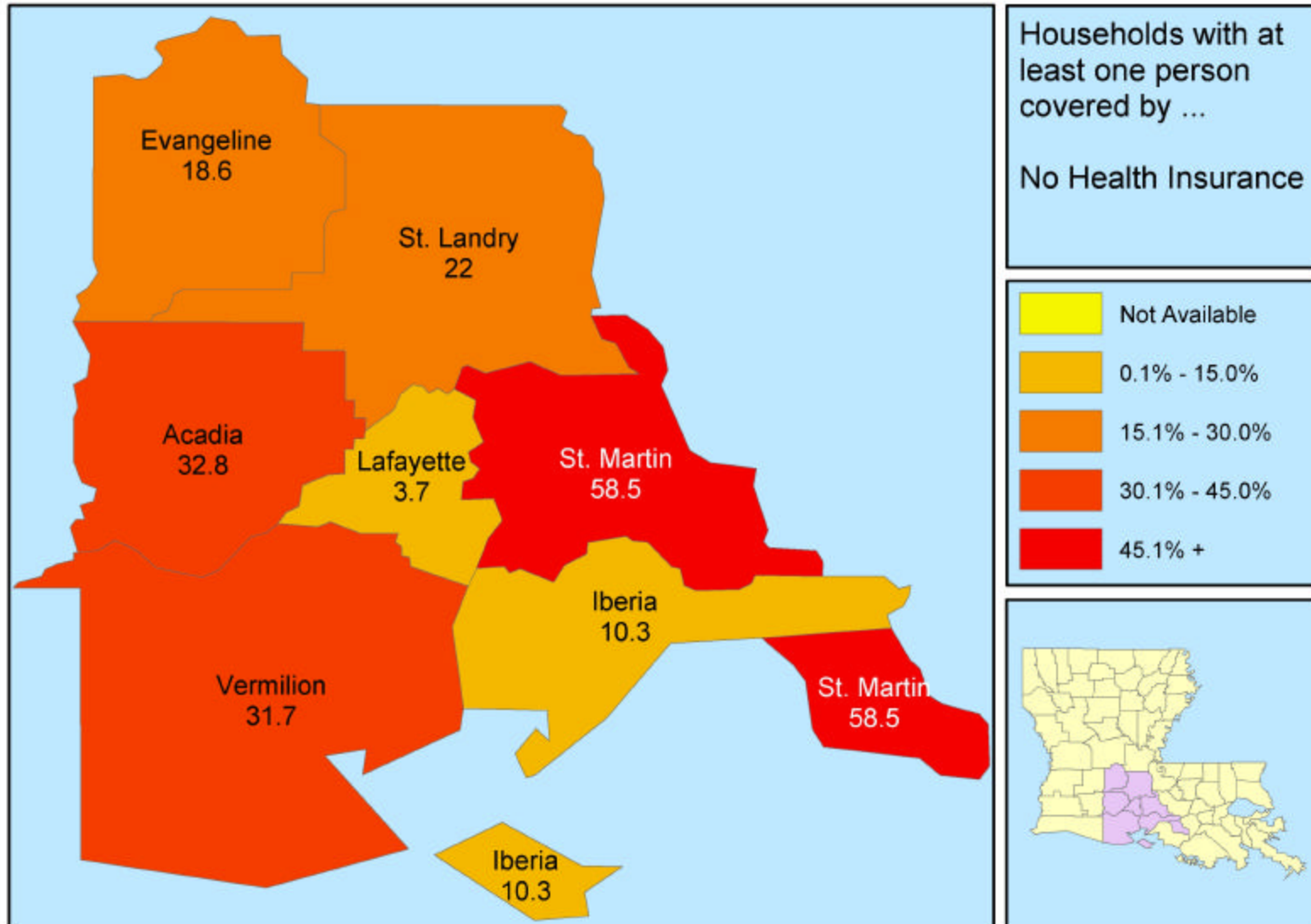


UMC – Lafayette Outpatient Visits

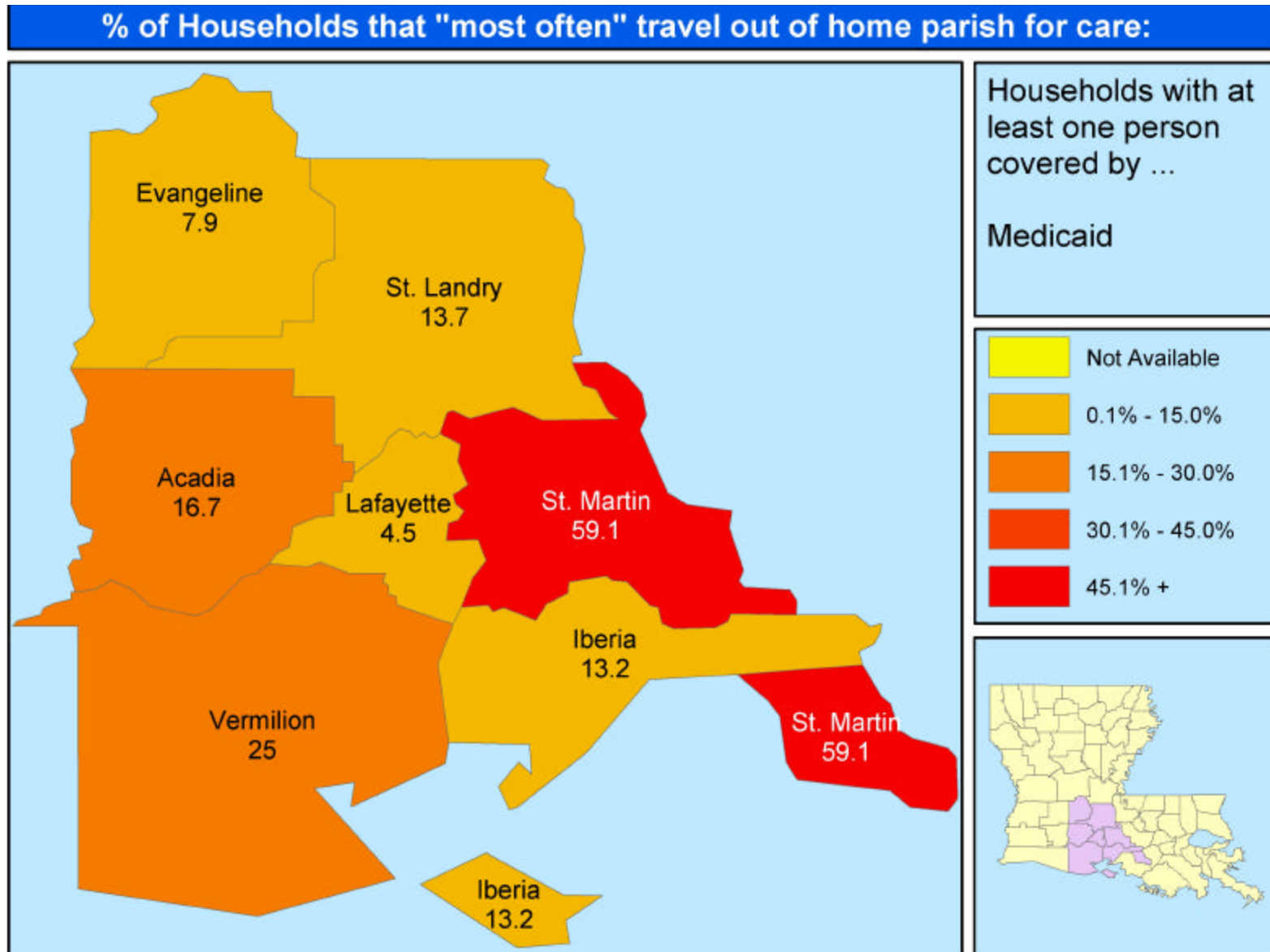


Where do the Uninsured go for care?

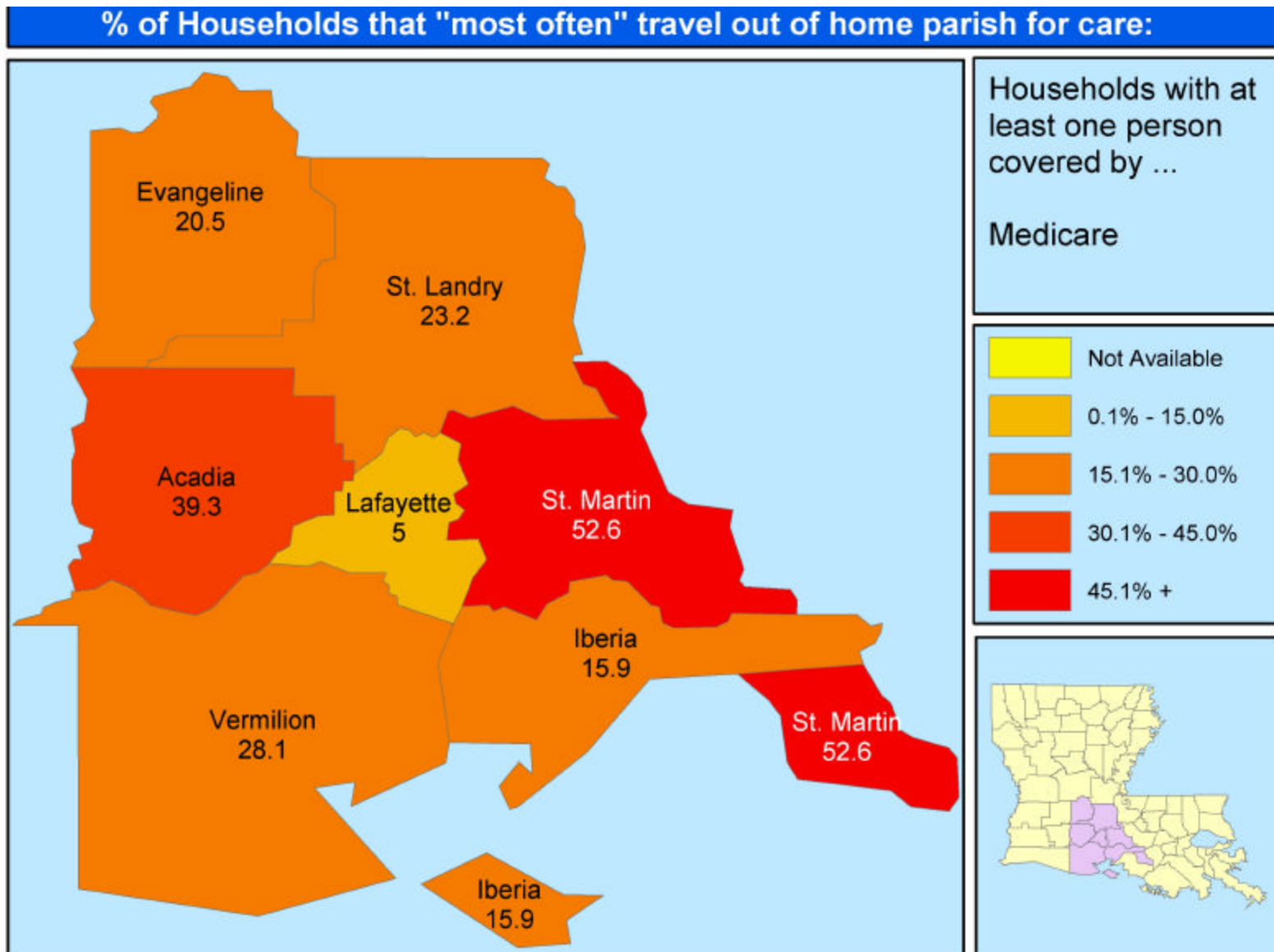
% of Households that "most often" travel out of home parish for care:



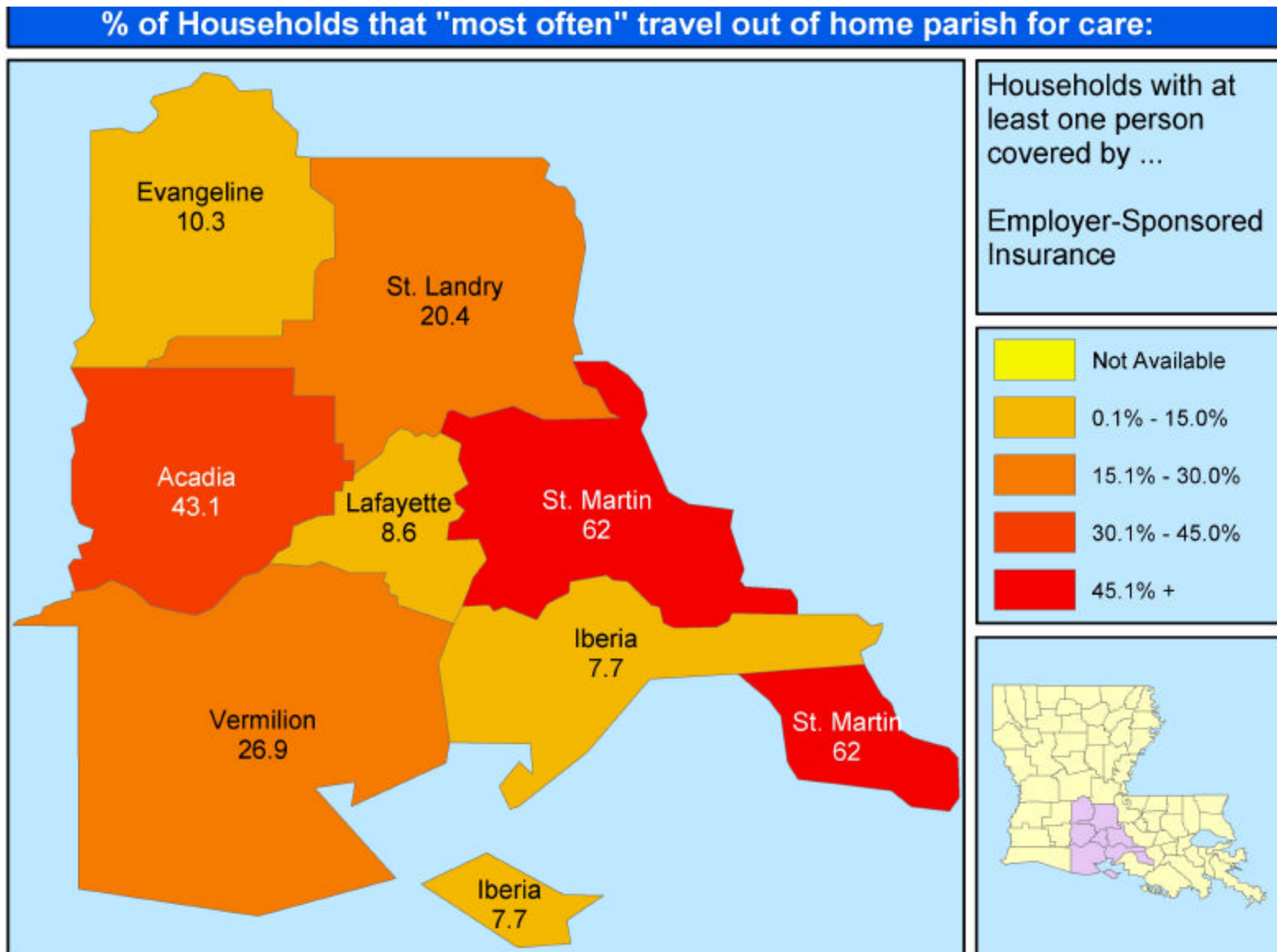
Where do Medicaid enrollees go for care?



Where do Medicare enrollees go for care?



Where do employer-insureds go for care?



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HICA's Ongoing and Future Projects

Ongoing HICA Projects

■ “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.

Funding & Partner:

Four-year funding committed by federal Health Resources & Services Administration (HRSA); contract with The Family Tree.

HICA’s Purpose:

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

HICA’s Innovation:

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

Ongoing HICA Projects (continued)

■ “Safe Schools / Healthy Students”

Project:

Ensuring safe and healthy school environments.

Funding & Partner:

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

HICA’s Role:

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

HICA’s Innovation:

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

Ongoing HICA Projects (continued)

■ “Louisiana DHH IS/IT Assessment”

Project:

Review governance of Louisiana DHH information systems and technologies in support of mission-critical program offices.

Funding & Partner:

Funds committed from Louisiana DHH; contract with DHH.

HICA’s Role:

Assessment organizational, budget, and technology aspects of current Louisiana DHH IT and MIS functions; identification of a vision for the future governance of DHH IS/IT; and delineation of barriers to achieving and opportunities for realizing that vision.

HICA’s Innovation:

Application of business process review techniques, coupled with benchmarking of other states’ health agency IS/IT governance and best practices recommended by recognized sources.

“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 - Looking Ahead

■ “Passive ER Surveillance”

Project:

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

Potential Funding and Partners:

Funds sought from BORSF ITRS (and from Governor’s IT Initiative) via competitive proposal; funds may also be sought from federal Health Resources & Services Administration (HRSA).

HICA’s Role:

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

HICA’s Innovation:

Regional pooling of ER data coupled with data mining.

HICA - Looking Ahead (continued)

■ “Community Health Information Network”

Project:

Acquisition, analysis, and reporting of (electronic) data gathered in the course of care for the medically indigent.

Potential Funding and Partners:

Funds sought from Governor’s IT Initiative via competitive proposal; funds may also be sought from federal Health Resources & Services Administration (HRSA).

HICA’s Role:

Recognition of patterns of care, including matters of interest to to the Charity Hospital system, Public Health, Louisiana Medicaid program, and community / regional health planners.

HICA’s Innovation:

Personal Electronic Health Records for program participants coupled with data repository and data mining.

HICA - Looking Ahead (continued)

■ “Personal Electronic Health Records”

Project:

Design, development, and test deployment of a prototype portable data system that vests responsibility for management of personal health data in the healthcare consumer, not exclusively in the domain of healthcare providers and institutions.

Potential Funding and Partners:

Funds sought from Governor’s IT Initiative via competitive proposal; funds may also be sought from other sources.

HICA’s Role:

Develop and evaluate technologies, systems, and market penetration approaches to deploy PEHRs, and inform personal health choices, and aid interactions with healthcare providers.

HICA’s Innovation:

(Confidential at present.)

*“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?*

<caillouet@louisiana.edu>

*Learn more at
<http://hica.louisiana.edu>*