



2010 Program Review Quality Improvement

Overview

The aim of the Quality Improvement Program Review is to develop and implement best practice management principles to optimize outcomes for KHPA beneficiary populations through a continuous, data-driven, health care quality improvement process for KHPA service areas. This review will:

- Describe current KHPA quality improvement activities
- Develop a plan for standard, concise continuous quality improvement applicable to most KHPA service areas that considers existing operational workflows and recognizes the fact that sustainable quality management should rely on minimally-burdensome data collection (e.g. leverage the Data Analytic Interface and augment with surveys as necessary).
- Identify initial areas of focus for future quality improvement activities based on data-driven prioritization of trends/patterns seen in the Data Consortium Kansas Health Indicators and Data Analytic Interface Portfolio Reports.

The Kansas Health Policy Authority (KHPA) - formed in 2006 by merging the state's Medicaid, Children's Health Insurance, and State Employee Health Programs – has had the goals of developing value based health care purchasing and improved care delivery coordination in collaboration with Kansas stakeholders. The statute authorizing KHPA required the agency to coordinate a data-driven health policy agenda for Kansas in collaboration with sister agencies and other key stakeholders. Executive Reorganization Order 38, released in February 2011 and now will move KHPA back under the leadership and direction of the Governor as the Division of Health Care Finance within the Department of Health and Environment. Data-driven efforts to improve the quality and efficiency of state health care programs are expected to continue and mature in the new organizational structure. These efforts are intended to make the best use of available data and also review whether that data is sufficient to address important policy issues and consumer needs facing Kansas' health system.

Description of Quality Improvement Activities

KHPA manages a huge stock of data to support its data-driven policy and quality improvement activities, including:

- Medicaid Management Information System (MMIS)
- State Employee Health Benefits/Workers' Compensation (SEHP)

- Kansas Health Insurance Information System (KHIIS)
- Licensure data from eight professional governing boards
- Hospital Inpatient Discharge data

KHPA policy staff routinely use MMIS claims data to compare various population groups and services to support policy decision-making. Specific examples include utilization and expenditure management (Medical Assistance Report), institutional reimbursement, health care purchasing, program management and procurement, managed care enrollment, planning for Medicaid aged and disabled populations managed care, medical imaging utilization, tracking health outcomes for the Transformation Grant project, Health Promotion for Kansans with Disabilities, fiscal impact projections for program expansions and eligibility refinements, caseload projections, program reviews tied to budget initiatives and reform proposals, and ad hoc requests from Legislative Research, other agencies, auditors and researchers.

SEHP claims and enrollment data from private companies providing health insurance to State employees, affiliated non-State entities and State Worker's Compensation System is used for monitoring utilization and expenditures, benchmarking with Medicaid, routine reports to Health Care Commission, and program redesign and procurement.

KHIIS includes health benefit, enrollment and claims data from major health insurance carriers in Kansas, collected and managed on behalf of the Commissioner of Insurance. It is used to support assessment of insurance benefits and their relationship to costs, and provides benchmark health care market information to improve state program management and to inform health policy decisions.

The health care database (licensure and discharge data) is used for a variety of health profession workforce, epidemiological, and disease surveillance analyses.

Kansas also leverages data available from national standards organization such as the Agency for Healthcare Research and Quality (AHRQ), the National Committee for Quality Assurance (NCQA) and others and has used the Healthcare Cost and Utilization Project (HCUP) State Inpatient Database (SID) and National Inpatient Sample (NIS) interactive data sets on HCUPNet to identify medical conditions (as defined by Clinical Classification Codes) that are key cost and volume drivers in Kansas as well as nationally. This information is immensely useful both for the Medical Home Steering Committee (members include staff from KHPA and KDHE) as well as the Stakeholder community (medical society, family physicians, geriatricians, internists, pediatricians, consumers, safety net clinics, Community Mental Health Centers, Medicaid managed care plans, Kansas foundations, nurses, pharmacists, and other care providers) in selecting initial focus/target areas for the medical home model being developed. The Data Consortium workgroups recommended several AHRQ prevention, inpatient, and patient safety indicators for inclusion in the Kansas Health Indicators dashboard. The evaluation of the Health Promotion for Kansans with Disability project included the use of a crosswalk of care opportunities contained in the Ingenix ImpactPro tool (used in the project) with quality measures

from the CMS Quality Compendium (many of the measures in this are from AHRQ) and HEDIS measures.

KHPA has been engaged in a large-scale, multi-tiered review of Kansas' Medicaid program to develop and document policy recommendations in an effort to increase efficiencies, cut costs and find additional revenue through ongoing annual reviews based mostly on administrative data (http://www.khpa.ks.gov/program_improvements/default.htm). Examples of performance improvement recommendations resulting from this systemic process:

- Payment reforms to providers to incentivize better coordination of care and creation of medical homes
- Limiting home health visits and hospice stays
- Developing an online Medicaid eligibility system
- creating a managed care program for the disabled
- Decreasing payments for durable medical equipment and transportation
- Automating the drug approval process.

Recently the scope of these reviews was expanded to include the SEHP as well.

Driven by selection to phases I and II of the Commonwealth/AcademyHealth State Quality Improvement Institute, as well as state legislation approved in 2008, KHPA is in the process of defining, developing, and incentivizing a medical home model for proactive, coordinated, evidence-based care to improve outcomes.

The KHPA Board, in its first year, authorized the creation of the Health Data Consortium. This multi-stakeholder advisory committee of key government agencies, hospitals, physicians, insurers, purchasers, and consumers created four workgroups on:

- Access to Care
- Quality & Efficiency
- Affordability & Sustainability
- Health & Wellness

The Consortium and its workgroups created and launched a state dashboard of Kansas Health Indicators for public reporting to leverage the state's data for health reform via data-driven policy (http://www.khpa.ks.gov/data_consortium/default.htm). The Kansas Health Indicators currently have 119 indicators with 23 dedicated specifically to Quality and Efficiency issues related to immunization, respiratory health, diabetes, heart disease, stroke, mental health, injury & violence, cancer, and tobacco cessation with state-, county-, and national-level historic trend and peer benchmark data (http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/default.htm).

The Data Analytic Interface (DAI) is an ambitious technology infrastructure development initiative that aims to consolidate and manage health care data for several state programs, including the MMIS, the SEHP, and the KHIIS. The DAI allows analysis of health care based on episodes of treatment, disease management, predictive modeling, and the measure of cost and

outcome effectiveness. The integrated Medicaid-SEHP modules were launched in January 2010, with the KHIS launch anticipated in Summer 2011. The DAI will form the backbone of several Surveillance Dashboards being designed to aid KHPA managers in performance monitoring and quality improvement activities by providing timely and proactive decision support on a monthly, quarterly, or higher frequency as needed.

Managed care encompasses both Medicaid and the Children's Health Insurance Program (CHIP, also known as HealthWave 21 or HW21). Medicaid includes HealthWave 19 (HW19) and HealthConnect Kansas (HCK), which is a Primary Care Case Management (PCCM) program. The HW21 program covers beneficiaries up to the age of 19 years. Two managed care organizations (MCOs) contract with KHPA: Children's Mercy Family Care Partners (CMFHP) and Unicare. Unicare and HCK provide coverage in all 105 Kansas counties while CMFHP provides coverage in counties located in the eastern two-thirds of the state.

The Managed Care Program is monitored for performance related to access to care, quality of care, and timeliness of care through an External Quality Review (EQR) process by the Kansas Foundation of Medical Care (KFMC). The quality monitoring and performance improvement activities rely on a combination of administrative and clinical chart review data obtained from the MCOs and the Fiscal Agent (HP) and cover the following aspects:

- Medicaid eligibility
- Health Plan assignment
- Prescription medications
- Laboratory services
- Outpatient, inpatient, and Emergency Room services
- Diagnostic and procedure information

The EQR consists of the following mandatory activities:

- Validation of two performance improvement projects required by the State to comply with requirements set forth in 42 CFR §438.240(b)(1), that were underway during the preceding 12 months. Some performance measures may be required by the state to be continued, based on specific outcomes for a specified period of time.
- Validation of MCO performance measures reported (as required by the State) or MCO performance measure calculated by the State during the preceding 12 months to comply with requirements set forth in 42 CFR §438.240(b)(2).
- A review, conducted within the first year of every contract period, and at least every three years thereafter, to determine the MCO's compliance with standards (except with respect to standards under 42 CFR §438.240(b)(1) and (2), for conducting performance improvement projects and calculations of performance measures, respectively) established by the State to comply with the requirements of 42 CFR §438.204(g).

The State maintains oversight of the MCO's quality management functions. The State regularly monitors and evaluates the MCO for compliance with the State-established standards for access to care, structure and operations, and quality measurement and improvement.

The State standards for access to care include:

- Availability of services
- Assurance of adequate capacity and services
- Coordination and continuity of care
- Coverage and authorization of services

The State standards for quality measurement and improvement include:

- Practice guidelines
- Quality assessment and performance improvement program
- Health information systems
- A description of the procedures to assess the quality and appropriateness of care and services to all members and to individual with special health care needs

The State standards for structure and operations include:

- Provider selection
- Enrollee information
- Confidentiality
- Enrollment and disenrollment
- Grievance systems – including the review of grievance and appeals
- Sub-contractual relationships and delegation

The State's quality management program consists of internal monitoring by the MCO, oversight by federal and state governments, and evaluations by an External Quality Review Organization (EQRO). Areas found to be deficient during the above processes shall be addressed by the MCO through a Corrective Action Plan (CAP) process initiated internally or by the State.

The State will monitor compliance of the MCO with:

- An annual review of the MCO
- Review of grievance and appeals
- The submission of an annual Quality Assessment and Performance Improvement (QAPI) assessment by the MCO
- The submission of performance improvement projects and performance measures by the MCO
- External Quality Review Organization (EQRO) reports

This monitoring is guided by an official State Quality Management Plan document that is periodically reviewed and revised as needed. The Medical Care Advisory Committee (MCAC) is involved in this review, as an advisory group required in federal regulation (42 §CFR 431.12) to advise the Medicaid agency about health and medical care services. The committee membership represents health care professionals including physicians, members of consumer groups including Medicaid recipients, and the director of the public health department. The committee reviews medical literature and aggregated population data to advise KHPA regarding medical services and items for potential coverage or continued coverage through KHPA Medical

Plans. The MCAC is tasked with developing recommendations regarding data collection for program evaluation and the development of quality initiatives.

The following HEDIS (Healthcare Effectiveness Data and Information Set) measures developed and validated by the National Committee for Quality Assurance (NCQA) are computed and compared annually for the CMFHP HW19, CMFHP HW21, Unicare HW19, Unicare HW21, and HCK programs:

HEDIS Measure	Performance Dimension	Type of Measure
Adults' Access to Preventive/Ambulatory Health Services	Access to Care	Administrative
Children and Adolescents' Access to Primary Care Practitioners	Access to Care	Administrative
Use of Appropriate Medications for People with Asthma	Quality of Care	Administrative
Lead Screening in Children	Quality of Care	Administrative
Comprehensive Diabetes Care: <ul style="list-style-type: none"> • HbA1C testing • HbA1C Poor Control (>9.0%) • HbA1C Control (<8.0%) • Eye exam performed • Low-Density Lipoprotein Cholesterol (LDL-C) Screening • LDL-C Control (<100mg/dL) • Medical Attention for Nephropathy • Blood Pressure Control (<130/80 mm Hg) • Blood Pressure Control (<140/90 mm Hg) 	Quality of Care	Hybrid
Prenatal and Postpartum Care	Timeliness of Care	Hybrid
Well-Child Visits in First 15 Months of Life	Timeliness of Care	Hybrid
Well-Child Visits in 3 rd , 4 th , 5 th , and 6 th Years of Life	Timeliness of Care	Hybrid
Antibiotic Utilization: All Age Groups	Timeliness of Care	Administrative

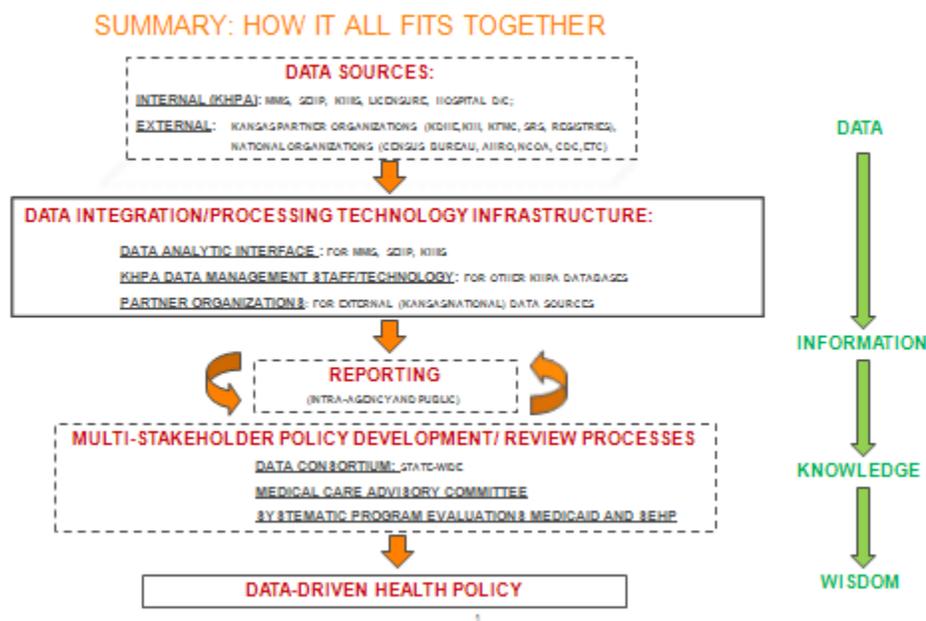
Quality reports related to managed care including the HEDIS measures and benchmarks, consumer and provider surveys, cross-program performance comparisons, and EQRO reports are published on the KHPA website at http://www.khpa.ks.gov/quality_reports/default.htm.

The National Association for State Health Policy (NASHP) has recognized Kansas as one of the leading states in the nation for its Quality Improvement initiatives for inclusion in their paper *State Strategies to Improve Quality and Efficiency: Making the Most of Opportunities in National Health Reform* by Jill Rosenthal et al, scheduled for final publication in December 2010. Details of Kansas activities highlighted by NASHP as characteristics of leading QI Partnership states are listed in Appendix D.

Discussion and Review

- KHPA, with the help of key health and health care stakeholder partners in the state of Kansas, has made significant investment and progress over the last few years in laying the foundation and building the prerequisite infrastructure for creating a sound, data-driven quality framework to help with policy development via a transparent, public, multi-stakeholder process. This framework to transform source data to effective health policy and its various components could best be summarized as shown below:

FIGURE 1: Data-Driven Policy Infrastructure



- (i) **Data Sources (Collection):** KHPA manages the Medicaid Management Information System (MMIS) - through its fiscal agent Hewlett Packard, the State Employee Health Benefit Plan database – through the data vendor Thomson Reuters, the Kansas Health Insurance Information System (KHIS) – through an internal staff team in coordination with the Kansas Insurance Department, the Licensure Database – via internal staff who compile monthly data feeds from each of the 8 Kansas Health Professional Licensure Boards, and the Kansas Hospital Discharge database – received from the Kansas Hospital Association. In addition, KHPA has access, either through data agreements or other arrangements, to several other state/national datasets from external partner organizations such as KDHE, KHI, KFMC, SRS, registries (cancer, immunization), AHRQ, CMS, NCQA, etc.

- (ii) Data Integration/Processing Technology Infrastructure (Analysis): The data from the various sources is converted to useful information through an analytic infrastructure combining automated and internal/external staff processes (e.g. the Data Analytic Interface with auto-computed measures/reports, MapInfo for geomapping, SQL-server based custom reports, outsourced analytics by the External Quality Review Organization – KFMC - and academic partners such as Kansas University). In 2011, validation of Medicaid MCO encounter data that is captured by the MMIS and fed into the DAI was performed successfully by collaborative efforts between HP, Thomson Reuters, and KHPA staff. This encounter data is now a valuable supplement to the HEDIS measures in evaluating quality of healthcare and patient outcomes, and in evaluating MCO finances.
 - (iii) Reporting (Dissemination): KHPA has consistently adopted an iterative, continuous improvement, multi-stakeholder, rapid cycle process for reporting and data policy development by engaging the expertise of, and soliciting multi-perspective input from, numerous internal staff and external partners right from design to implementation of reports, mostly disseminated transparently and widely on the KHPA website. This robust approach is evidenced both in the collaborative developmental draft process for the Data Consortium Health Care Market Reports (https://www.khpa.ks.gov/medicaid_reports/Health_Care_Market_Reports.html) as well as the comprehensive Medicaid Program Review process (https://www.khpa.ks.gov/program_improvements/default.htm) . Such well-deliberated, thoughtfully-constructed, and widely-disseminated reports aimed at a broad range of users from legislators to the general public, when combined with other contextual state and national environmental variables pertaining to the health care marketplace, could provide a valuable and objective foundation for data-driven health policy.
- In the specific area of Medicaid managed care, while the current MCO quality framework has several ongoing initiatives including a joint performance improvement project (PIP) on diabetes involving collaboration between the 2 MCOs, as well as efforts to improve well-child visits, perinatal care, provider satisfaction, Chlamydia screening, etc., the following characteristics leave significant room for improvement:
 - Excessive reliance on HEDIS and CAHPS measures weighted more towards process measures (intermediate measures such as percent eligible population receiving well-child visits or prenatal/postnatal care, physiological measures of blood glucose or LDL cholesterol control) rather than patient health outcome measures (e.g. preventable complications, admits, readmissions, ER use, surgeries, etc.). While HEDIS and CAHPS measures are widely accepted as being validated and standardized measures, it is not always clear to what extent they reflect MCO performance vs. the performance of doctors and health delivery networks. Also, in many cases they are binomial measures i.e. yes/no type questions that indicate only whether a particular screening or visit occurred as opposed to how effective that event was in influencing the patient’s health. This is not to say that these measures are not useful. They are in fact necessary, but

not sufficient. They need to be augmented with related measures derived from administrative claims data (e.g. from the MCO encounter dataset reported both by the MCO and validated using the DAI) so that for each medical condition of interest – e.g. diabetes, there is a balanced scorecard of measures comprising all 3 dimensions of quality namely: health outcomes, costs (including a return on investment or ROI estimate that indicates the average savings or cost-avoidance per expenditure associated with any quality intervention), and patient experience or satisfaction. Another powerful indicator of the effectiveness of quality improvement activities that lends itself directly to optimization is a run chart plotted over time for an outcome-per-cost metric. One example: Decrease in lower extremity amputations in the diabetes population per total cost of the MCO's diabetes management program. As the intervention(s) are iteratively and continuously refined through Plan-Do-Check-Act (PDCA) cycles at various points in time, this chart needs to be annotated to monitor whether such changes in programs or interventions are having the expected impact on outcomes. Such an approach will increase the cost-effectiveness of quality improvement activities over time.

- Inadequate frequency of measurement to allow rapid-cycle changes. Not only are the majority of currently tracked HEDIS measures monitoring processes rather than outcomes, but their frequency of measurement is less than desired, ranging from annual to quarterly, partly because of the continuous eligibility requirements of some HEDIS measures. Effective quality improvement relies on continuous measurement, dynamic feedback, and data-driven intervention refinement. So, it is imperative that MCOs develop and frequently (at least monthly wherever possible) report on a broad set of operational metrics to gage how well the program interventions (e.g. reminders to patients/physicians, discharge instructions, checklists) associated with a higher level HEDIS or end outcome measure are being implemented.
- Absence of a standard, rigorous, comprehensive, objective, and data-driven prioritization methodology across all MCOs for identification of topics for performance improvement and a mechanism to dynamically keep them aligned with KHPA Medicaid program objectives at all times. MCOs should be able to support their choice of topics with detailed baseline analyses for their respective Kansas beneficiary populations that describe cost, utilization, and population health outcome patterns for various categories of service and augment this with literature research of evidence-based practices, root cause analyses, tailored intervention design, and return on investment projections that compare the effectiveness of several different possible intervention options before investing in implementation efforts. Given the wide choice of possible QI initiatives underway nationally at any given point in time, the importance of short-listing based on unique local Kansas health needs (demand) is essential for effective allocation of MCO resources.
- Non-rigorous tracking and reporting of the return-on-investment associated with each QI initiative. MCOs need to better track all the costs and returns (either

financial or other desirable outcomes) involved with each intervention, PIP, or disease management program separately to enable the relative analysis and optimization of effectiveness of various initiatives and the creation of a sustainable portfolio of QI projects through cross-subsidization of high cost but clinically essential patient safety and quality initiatives with other high financial ROI initiatives.

- Lack of regular, explicit demonstration and cross-dissemination of the use of established QI tools such as process mapping, root-cause analyses, etc. being applied on an ongoing basis in the PIP process to understand the reasons for successes or failures and to improve the effectiveness of program changes combined with continuous environmental scanning for the latest evidence based body of knowledge.
- A review of the current Medicaid managed care quality processes, combined with total quality management best principles, suggests the following desirable characteristics for a future Medicaid Managed Care Organization (MCO) Quality Oversight Plan:
 - Strong outcomes-focus with MCOs held accountable for showing continuous improvement on a balanced mix of population health, cost-effectiveness, and beneficiary satisfaction measures tracked with the aid of dashboards optimized for minimally burdensome, data-driven management by the MCO and the state.
 - Emphasis on effective intervention design based on well-researched best-practices with frequent monitoring of outcome measures and related process measures to study the impact and iteratively refine the intervention to proactively meet set objectives.
 - Encouragement of productive competition and collaborative learning between multiple MCOs by transparent cross-dissemination of successes and failures through objective, data-rich, shared reporting of performance improvement project (PIP) and quality (e.g. HEDIS) measures and root-cause analyses on an ongoing basis.
- The quality improvement plan articulated in the next section leverages key foundational agency infrastructure, namely the technology base (e.g. DAI, MMIS), collaborative decision-making processes (e.g. Data Consortium and other advisory committees), continuous reviews (e.g. program reviews), feedback in the form of objective reporting (e.g. DAI surveillance dashboards currently being developed), accumulated organizational learning (e.g. Program review recommendations, prioritized Kansas Health Indicators), and staff expertise for building a rigorous, outcomes-focused, continuous quality improvement culture across all service lines.

Quality Improvement Plan

1. Expand the use of quality management activities in each delivery system (population or program) to develop quality improvement opportunities. This will entail:
 - Selection of baseline metrics (e.g. balanced scorecards to track clinical, financial, and satisfaction outcomes) for individual KHPA program areas prioritized based on the

ongoing Program Review process, Data Consortium Kansas Health Indicators, national Quality Initiatives such as the AHRQ National Healthcare Quality Report, Healthy People 2010, etc..

- Mapping of end outcomes (e.g. quality outcomes at the State or county level) to intermediate (or process) outcome metrics at the agency and program unit level.
- Identification of data sources for both the end outcome and process outcome metrics along with appropriate benchmarks, implementation of the dashboards, and routine dissemination of dashboards (feedback) to key stakeholders
- Application/interpretation of the dashboards to identify potential areas for targeted quality improvement interventions
- Development of program improvements (preferably drawn from evidence-based best practices to ensure higher probability of success) and selection of targets/goals for key metrics. This could involve collaborations/coordination with partner organizations as required based on the scope of the intervention and target populations.
- Continued pre- and post-analysis of dashboards to gauge the impact of, and fine-tune interventions to maximize the return on investment of such quality improvement interventions.

2. Implement a strategy for development of a quality framework by requiring each service delivery area to identify a manageable, representative set of:

- Outcome measures (at least one beneficiary; one financial)
- Process measures linked to each outcome measure

The recommendation is to ensure that there are not so many measures that there would be dilution of focus. A smaller number of measures increases the chances of success and forces a degree of prioritization right from the time of design of the QI initiative. Other process measures could be added in future iterations if needed to fine-tune the effectiveness of the initial interventions.

The choice of measures could be reactive (based on prior year program experience, program review recommendations) or proactive (to improve current performance or address anticipated issues).

A resource to aid with an objective (data-driven) selection of measures for Quality Improvement activities is the Data Analytic Interface and other comparable data sources that support customizable management reports or dashboards, preferably with the ability for benchmarking. Appendix A lists real examples of such information in the form of comparisons between Medicaid and SEHP data for the most recent complete State Fiscal Year (July 2009 to June 2010) for the top clinical conditions by net expenditures, chronic conditions versus national benchmarks, and the top 25 prescription drugs (by net payments).

Measures vetted through multi-stakeholder expert committees could also serve as ideal guidance for selection of focus areas for Quality Improvement efforts for meaningful change (i.e. improved outcomes for multiple stakeholders). For example, Appendixes B

and C list potential areas of focus suggested through a data-driven prioritization process from the Kansas Health Indicators at the State level based on the performance of Kansas with respect to national and peer state benchmarks. Measures in which Kansas performance lags with respect to these benchmarks in the most recent year of measurement are included in Appendix B as suggestions for further evaluation as opportunities for improvement by studying potential causes for such relative performance, reviewing any programs related to that measure currently in place in Kansas vis-à-vis other successful states, and brainstorming interventions that could improve Kansas performance. Appendix C lists those measures where Kansas has shown successful relative performance against state and national benchmarks. It is important to track these successes for analysis of factors that contribute to such desirable performance and brainstorming ways to transfer these successes to other quality improvement areas.

Given the breadth of the programs managed at KHPA, even this pragmatic, data-driven selection of measures result in too large a list of measures. A useful set of criteria for prioritizing can be illustrated by the concept of a time-adjusted return on investment. For example, the Pareto Priority Index is designed to maximize the return and probability of success, while minimizing the cost and time required for success.

Pareto Priority Index = (Anticipated Value of Intervention x Probability of Success) / (Estimated cost of intervention x Time required from intervention to outcome)

The value of any given program improvement should be tied as closely as possible to the values articulated by the Governor and Legislature, and might explicitly or implicitly be tied to cost savings and/or improved clinical outcomes and/or satisfaction.

The state will rarely have enough information, nor sufficient clarity of purpose, to compute such a numeric index, but it is useful as a reminder of the factors that should be considered.

- Design surveillance dashboards driven by the DAI and other existing data sources with historic data used to establish baselines. Some measures could potentially need new data sources, but these are not recommended in the first iteration in order to minimize the burden of data collection and reporting.
- Routinely update and disseminate dashboard measures with intrinsic (control limits) and extrinsic (peer) benchmarks as well as targets (either absolute targets or based on national standards such as Healthy People 2020). The use of a simple statistical device such as control limits helps prevent program managers and others to identify significant change in a key outcome while hopefully avoiding an over-reaction to movement in data.
- All program/population/service areas will review recent trends (e.g. latest quarter data) compared to previously established baselines, to try to understand, analyze, and explain trends observed and incorporate these into program or service area review recommendations for next cycle of continuing improvements.

- Each program or service area will adopt some form of an iterative Plan-Do-Check-Act (PDCA) approach to continuing quality improvements. One example of this would be a series of program evaluations repeated on a reasonable interval.

APPENDIX A

Data Analytic Interface Net Effect Reports

Top Clinical Conditions

Medicaid Fee-for-Service SFY2010

SEHP SFY2010

Clinical Conditions	Net Pay Med	Net Pay Med as Pct of All Clinical Conditions	Patients Med	Net Pay Per Patient Med	Admits Per 1000 Acute	Visits Per 1000 OP Fac Med	Visits Per 1000 Office Med
Signs/Symptoms/Oth Cond, NEC	\$657,691,077	42.87%	100,859	\$6,520.90	4.53	192.47	430.29
Neurological Disorders, NEC	\$80,824,805	5.27%	12,190	\$6,630.42	.90	9.89	23.83
Mental Hlth - Psychoses, NEC	\$52,584,938	3.43%	9,399	\$5,594.74	5.04	5.00	6.13
Dementia, Primary Degenerative	\$45,989,415	3.00%	4,054	\$11,344.21	.94	.38	1.97
Cerebrovascular Disease	\$38,733,015	2.39%	6,497	\$5,853.84	3.00	4.55	9.71
Hypertension, Essential	\$31,679,954	2.06%	24,915	\$1,271.52	2.39	17.94	62.80
Diabetes	\$30,462,387	1.99%	22,181	\$1,373.35	4.41	28.05	97.13
Newborns, w/w/o Complication	\$27,381,257	1.78%	14,390	\$1,902.80	34.23	2.81	2.90
Mental Hlth - Schizophrenia	\$25,935,160	1.69%	4,071	\$6,370.71	2.92	6.52	4.46
Congestive Heart Failure	\$20,726,707	1.35%	8,993	\$2,963.92	.35	6.20	11.71
Pregnancy w Vaginal Delivery	\$19,875,443	1.30%	14,885	\$1,335.27	29.88	.11	1.01
Respiratory Disord, NEC	\$19,788,663	1.29%	32,299	\$612.61	1.92	41.22	45.61
Mental Hlth - Neuroses, NEC	\$18,334,916	1.20%	10,208	\$1,796.13	1.11	9.75	25.98
Mental Hlth - Depression	\$18,302,578	1.19%	10,074	\$1,816.81	3.55	7.66	17.35
Chronic Obstruc Pulm Dis(COPD)	\$17,294,446	1.13%	10,889	\$1,588.25	4.04	7.57	23.49
Injury - Head	\$16,336,298	1.06%	6,833	\$2,390.79	.92	9.80	2.61
Coronary Artery Disease	\$15,414,146	1.00%	7,900	\$1,951.16	4.25	7.95	25.72
Mental Hlth - Bipolar Disorder	\$14,943,831	0.97%	4,644	\$3,217.88	3.16	7.23	6.42
Gastroint Disord, NEC	\$14,509,580	0.95%	38,512	\$378.75	4.42	86.75	52.71
Osteoarthritis	\$13,418,337	0.87%	13,449	\$997.72	2.24	11.86	44.04
Infections, NEC	\$12,779,213	0.83%	21,229	\$601.97	.54	19.06	35.43

Clinical Conditions	Net Pay Med	Net Pay Med as Pct of All Clinical Conditions	Patients Med	Net Pay Per Patient Med	Admits Per 1000 Acute	Visits Per 1000 OP Fac Med	Visits Per 1000 Office Med
Prevent/Admin Hlth Encounters	\$17,994,988	5.98%	58,216	\$309.11	.03	190.81	1,280.83
Signs/Symptoms/Oth Cond, NEC	\$17,282,105	5.74%	26,164	\$660.53	4.19	379.38	617.67
Osteoarthritis	\$13,991,557	4.65%	7,017	\$1,993.95	6.25	32.62	221.80
Coronary Artery Disease	\$11,143,981	3.70%	3,300	\$3,376.96	3.63	27.94	98.82
Gastroint Disord, NEC	\$9,790,205	3.25%	11,347	\$862.80	2.64	70.38	279.19
Arthropathies/Joint Disord NEC	\$8,177,346	2.72%	18,661	\$440.57	.83	121.30	530.46
Pregnancy w Vaginal Delivery	\$8,058,348	2.68%	1,117	\$7,214.28	7.50	.42	21.49
Respiratory Disord, NEC	\$7,878,983	2.62%	9,422	\$836.23	.99	47.15	286.83
Spinal/Back Disord, Low Back	\$7,727,614	2.57%	13,032	\$592.97	1.50	58.34	705.98
Cancer - Breast	\$5,840,397	1.94%	1,055	\$5,535.92	.28	22.65	83.05
Newborns, w/w/o Complication	\$5,707,826	1.90%	1,116	\$5,114.54	9.40	.68	41.30
Condition Rel to Tx - Med/Surg	\$5,029,907	1.67%	1,353	\$3,717.80	2.16	14.71	28.11
Cardiovaso Disord, NEC	\$4,612,658	1.53%	5,271	\$875.10	1.23	24.88	101.12
Spinal/Back Disord, Ex Low	\$4,404,083	1.46%	10,208	\$431.52	.69	20.33	569.92
Eye Disorders, NEC	\$4,037,621	1.34%	35,237	\$114.58	.02	4.15	420.70
Infections - ENT Ex Otitis Med	\$3,944,052	1.31%	23,347	\$168.93	.34	28.13	378.40
Cardiac Arrhythmias	\$3,785,031	1.26%	2,888	\$1,311.51	2.20	22.12	110.10
Chemotherapy Encounters	\$3,717,248	1.24%	188	\$19,772.60	.24	20.73	4.81
Cholecystitis/Cholelithiasis	\$3,690,051	1.23%	767	\$4,811.02	1.20	7.10	26.92
Diabetes	\$3,548,880	1.18%	8,243	\$430.53	.98	40.62	322.00
Cancer - Colon	\$3,429,282	1.14%	304	\$11,280.47	.50	7.08	28.34
Renal Function Failure	\$3,338,065	1.11%	913	\$3,656.15	.61	86.52	49.37
Infeo/Inflam - Skin/Subcu Tiss	\$3,198,857	1.06%	15,800	\$202.46	1.34	27.55	300.09
Hernia/Reflux Esophagitis	\$3,155,632	1.05%	3,292	\$958.58	.71	11.96	58.09
ENT Disorders, NEC	\$3,140,275	1.04%	12,007	\$261.54	.16	12.29	345.77

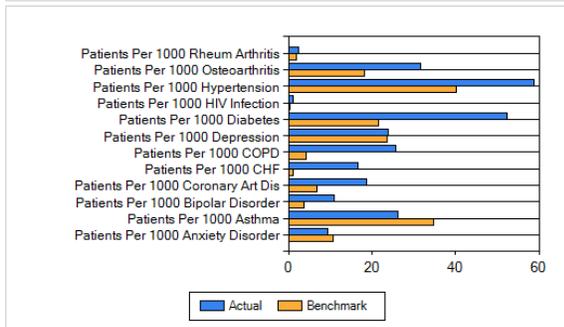
Notes: Net Pay Med is the net amount paid for facility and professional services under Medical coverage. It represents the amount after all pricing guidelines have been applied, and all third party, copayment, coinsurance, and deductible amounts have been subtracted.

The numbers reported for Medicaid does not include any payments made to MCOs or payments made by them on behalf of consumers in the HealthWave managed care program.

Chronic Conditions vs National Benchmarks

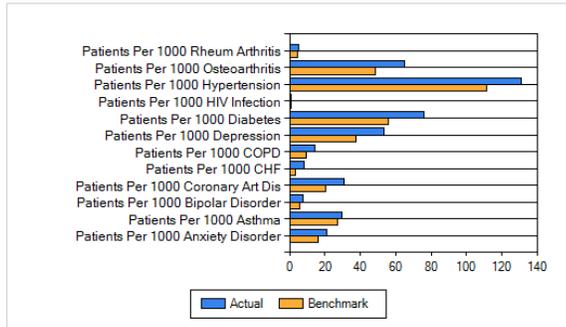
Medicaid SFY2010

Measures	Actual	Benchmark	% Difference
Patients Per 1000 Anxiety Disorder	9.47	10.63	-11.0%
Patients Per 1000 Asthma	26.22	34.68	-24.4%
Patients Per 1000 Bipolar Disorder	10.96	3.63	201.8%
Patients Per 1000 Coronary Art Dis	18.64	6.86	171.6%
Patients Per 1000 CHF	16.50	1.18	1,303.6%
Patients Per 1000 COPD	25.69	4.13	521.7%
Patients Per 1000 Depression	23.77	23.64	0.6%
Patients Per 1000 Diabetes	52.34	21.45	144.0%
Patients Per 1000 HIV Infection	1.22	.41	196.2%
Patients Per 1000 Hypertension	58.79	40.20	46.2%
Patients Per 1000 Osteoarthritis	31.73	18.20	74.4%
Patients Per 1000 Rheum Arthritis	2.49	1.92	29.2%



SEHP SFY2010

Measures	Actual	Benchmark	% Difference
Patients Per 1000 Anxiety Disorder	21.05	16.18	30.1%
Patients Per 1000 Asthma	29.36	27.32	7.4%
Patients Per 1000 Bipolar Disorder	7.29	5.90	23.5%
Patients Per 1000 Coronary Art Dis	30.48	20.50	48.6%
Patients Per 1000 CHF	7.82	3.25	140.4%
Patients Per 1000 COPD	14.49	9.11	59.1%
Patients Per 1000 Depression	53.13	37.48	41.7%
Patients Per 1000 Diabetes	76.12	55.81	36.4%
Patients Per 1000 HIV Infection	.42	.96	-56.8%
Patients Per 1000 Hypertension	131.14	111.43	17.7%
Patients Per 1000 Osteoarthritis	64.80	48.62	33.3%
Patients Per 1000 Rheum Arthritis	5.25	4.44	18.0%



Top 25 Prescription Drugs (Ranked by Net Pay Rx)

Medicaid SFY2010

Product Name	Net Pay Rx	Net Pay Rx as % of All Drugs	Scripts Rx	Net Pay Per Script Rx	Net Pay Per Day Supply Rx	Copay Per Script Rx	Scripts Per Patient Rx
ABILIFY	\$12,791,808	7.81%	35,150	\$363.92	\$12.68	\$0.86	6.34
SEROQUEL	\$7,964,913	4.86%	36,421	\$218.69	\$7.71	\$1.06	6.86
ALPHANATE	\$5,734,130	3.50%	126	\$45,508.97	\$2,316.82	\$36.11	18.00
ZYPREXA	\$4,548,566	2.78%	13,277	\$342.59	\$12.06	\$1.36	7.01
GEODON	\$4,351,596	2.66%	17,165	\$253.52	\$9.06	\$0.80	7.30
ATRIPLA	\$3,046,634	1.86%	2,846	\$1,070.50	\$35.68	\$0.37	7.32
SINGULAIR	\$2,746,327	1.68%	54,032	\$50.83	\$1.70	\$0.45	4.23
INVEGA	\$2,622,893	1.60%	8,339	\$314.53	\$10.93	\$1.11	6.62
SEROQUEL XR	\$2,570,014	1.57%	10,831	\$237.28	\$8.50	\$0.92	5.66
OXYCONTIN	\$2,559,495	1.56%	10,507	\$243.60	\$8.99	\$3.00	6.47
ADVATE	\$2,416,268	1.48%	101	\$23,923.44	\$1,508.28	\$0.00	6.31
CONCERTA	\$2,365,389	1.44%	23,157	\$102.15	\$3.48	\$0.15	6.47
RISPERDAL CONSTA	\$2,264,198	1.38%	4,434	\$510.64	\$23.14	\$2.40	8.38
PREVACID	\$2,246,716	1.37%	21,374	\$105.11	\$3.56	\$1.35	3.68
VYVANSE	\$2,223,287	1.36%	24,914	\$89.24	\$3.05	\$0.17	6.00
TRUVADA	\$2,200,599	1.34%	3,141	\$700.60	\$23.38	\$0.58	6.98
CYMBALTA	\$1,983,458	1.21%	21,152	\$93.77	\$3.19	\$1.44	6.16
LEXAPRO	\$1,896,680	1.16%	31,658	\$59.91	\$2.05	\$1.30	5.50
STRATTERA	\$1,786,596	1.09%	16,051	\$111.31	\$3.82	\$0.20	6.51
LIPITOR	\$1,648,707	1.01%	26,765	\$61.60	\$2.03	\$1.45	7.09
DIVALPROEX SODIUM	\$1,571,184	0.96%	36,431	\$43.13	\$1.50	\$0.69	7.88
LANSOPRAZOLE	\$1,418,932	0.87%	24,047	\$59.01	\$1.99	\$1.48	4.07
LANTUS	\$1,396,070	0.85%	16,761	\$83.29	\$3.25	\$1.97	5.58
ADVAIR DISKUS 250/50	\$1,273,355	0.78%	12,152	\$104.79	\$3.49	\$1.21	3.48
RISPERIDONE	\$1,212,473	0.74%	40,690	\$29.80	\$1.04	\$0.59	7.28

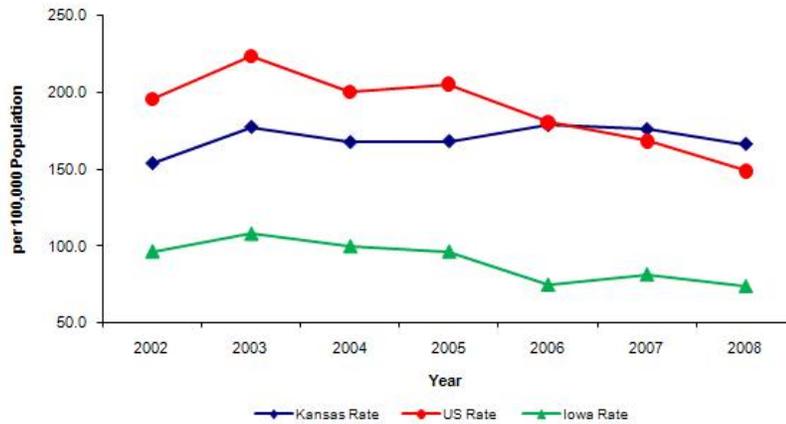
SEHP SFY2010

Product Name	Net Pay Rx	Net Pay Rx as % of All Drugs	Scripts Rx	Net Pay Per Script Rx	Net Pay Per Day Supply Rx	Copay Per Script Rx	Scripts Per Patient Rx
LIPITOR	\$2,255,049	3.00%	32,656	\$69.05	\$1.94	\$0.31	7.48
ENBREL	\$1,734,840	2.31%	1,002	\$1,731.38	\$58.72	\$68.95	7.77
SINGULAIR	\$1,552,796	2.06%	16,606	\$93.51	\$2.92	\$18.38	5.34
NEXIUM	\$1,481,145	1.97%	14,993	\$98.79	\$3.06	\$0.16	6.14
ACTOS	\$1,423,858	1.89%	7,648	\$186.17	\$5.47	\$18.70	7.46
COPAXONE	\$1,045,429	1.39%	395	\$2,646.66	\$88.22	\$70.85	8.59
PLAVIX	\$1,029,554	1.37%	9,456	\$108.88	\$3.32	\$0.80	7.38
SIMVASTATIN	\$998,037	1.33%	45,832	\$21.78	\$0.62	\$0.11	6.40
HUMIRA	\$959,518	1.28%	559	\$1,716.49	\$61.94	\$70.04	6.90
LEXAPRO	\$933,320	1.24%	16,962	\$55.02	\$1.73	\$0.23	5.97
CYMBALTA	\$904,973	1.20%	9,218	\$98.17	\$3.19	\$0.41	6.59
ADVAIR DISKUS 250/50	\$879,246	1.17%	5,120	\$171.73	\$5.56	\$16.73	4.17
AVONEX	\$874,164	1.16%	356	\$2,455.52	\$84.82	\$72.04	10.17
OMEPRAZOLE	\$832,324	1.11%	24,878	\$33.46	\$1.02	\$0.09	5.52
EFFEXOR-XR	\$807,982	1.07%	7,922	\$101.99	\$3.30	\$0.41	7.63
CRESTOR	\$805,731	1.07%	11,887	\$67.78	\$1.98	\$0.38	6.40
BETASERON	\$753,046	1.00%	299	\$2,518.55	\$88.28	\$70.16	9.65
LANTUS	\$744,019	0.99%	5,808	\$128.10	\$4.50	\$7.24	6.75
PANTOPRAZOLE SODIUM	\$676,635	0.90%	7,847	\$86.23	\$2.73	\$0.01	5.11
JANUVIA	\$597,833	0.79%	3,595	\$166.30	\$5.07	\$17.89	6.98
REBIF	\$561,982	0.75%	231	\$2,432.82	\$84.69	\$71.43	8.56
CELEBREX	\$535,680	0.71%	6,100	\$87.82	\$2.74	\$0.19	4.85
METOPROLOL SUCCINATE	\$531,135	0.71%	17,379	\$30.56	\$0.89	\$0.04	7.11
ZOLPIDEM TARTRATE	\$530,920	0.71%	14,883	\$35.67	\$1.22	\$0.04	4.67
AZITHROMYCIN	\$526,111	0.70%	23,243	\$22.64	\$4.41	\$0.02	1.40

APPENDIX B

Selected Kansas Health Indicator Patterns / Trends Suggesting Potential for Quality Improvement Intervention

Hospitalization for Ambulatory-Care-Sensitive Conditions: Pediatric Asthma (per 100,000)



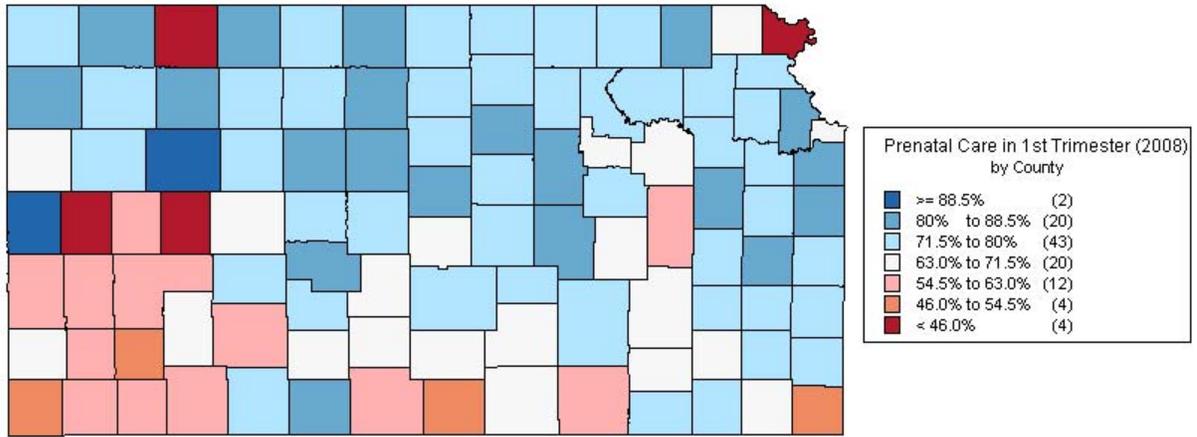
Reference:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/access_to_care/access_outcomes/ambulatory_care/amb_care_ped_asthma.htm

Data Source:	AHRO HCupnet http://hcupnet.ahrq.gov/
Numerator:	Patients aged < 18 years discharged from hospitals with a principal diagnosis of asthma.
Denominator:	Estimated population, aged < 18 years, of the geographic region. Obtained from the US Census website: http://www.census.gov/hhes/www/cpssc/cps_table_creator.html

Year	Kansas Rate	Kansas Count	US Rate	US Count	Iowa Rate	Iowa Count
2002	153.8	1,093	196.1	143,733	96.5	687
2003	177.6	1,250	224.0	164,801	108.0	754
2004	167.6	1,152	200.5	147,981	99.8	681
2005	168.3	1,164	205.5	152,061	96.4	658
2006	178.9	1,246	180.5	133,732	74.7	529
2007	176.1	1,250	168.4	125,311	81.4	577
2008	166.4	1,177	148.8	110,906	73.6	527

Pregnant Women Who Receive Prenatal Care in the First Trimester of Pregnancy 2008



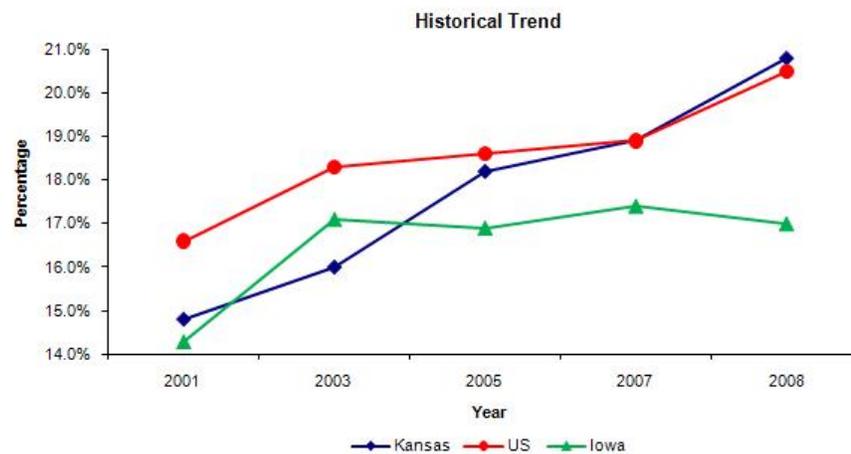
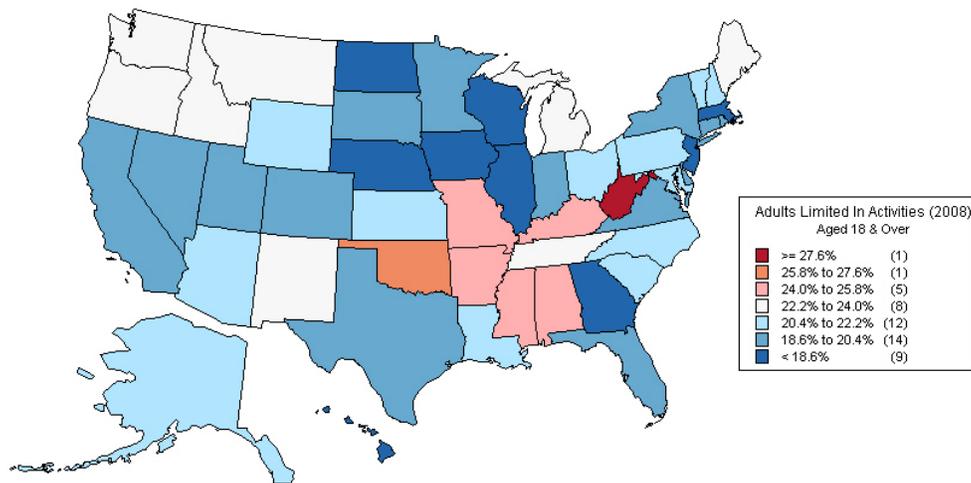
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http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/health_and_wellness/maternal_and_child_health/prenatal_care/prenatal_care_2008.htm

Data Source:	Kansas Information for Communities (KIC)/KDHE (Births Database) http://kic.kdhe.state.ks.us/kic/Birth.html
Numerator:	Kansas resident births in which the mother received prenatal care during the first trimester of pregnancy.
Denominator:	Kansas resident births.

Adults Who are Limited in Any Activities Because of Physical, Mental, or Emotional Problems

2008

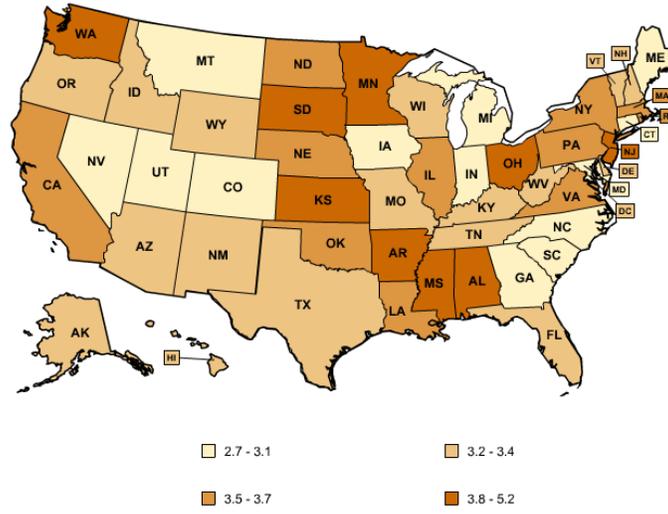


Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/health_and_wellness/disability/adult_limited_activities_2008.htm

Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)/KDHE http://apps.nccd.cdc.gov/brfss/index.asp
Numerator:	Number of adults aged ≥18 years who report they are limited in any activities because of physical, mental, or emotional problems (excluding unknowns and refusals).
Denominator:	Number of adults aged ≥18 years who report they are or are not limited in any activities because of physical, mental, or emotional problems (excluding unknowns and refusals).

Average Number of Days with Limited Activity Per 30 Days, 2007



Source: <http://www.statehealthfacts.org/comparemaptable.jsp?ind=120&cat=2>; United Health Foundation Study based on BRFSS and CDC 2007 data

	Limited Activity Days per Month
United States	3.6
Alabama	4.3
Alaska	3.4
Arizona	3.3
Arkansas	4.1
California	3.7
Colorado	2.9
Connecticut	3.1
Delaware	3.4
District of Columbia	3.4
Florida	3.3
Georgia	2.9
Hawaii	3.3
Idaho	3.3
Illinois	3.5
Indiana	2.9
Iowa	3.0
Kansas	5.2
Kentucky	3.3

	Limited Activity Days per Month
United States	3.6
Louisiana	3.6
Maine	3.0
Maryland	3.1
Massachusetts	3.6
Michigan	3.0
Minnesota	4.0
Mississippi	3.8
Missouri	3.4
Montana	3.0
Nebraska	3.7
Nevada	3.1
New Hampshire	3.4
New Jersey	3.9
New Mexico	3.4
New York	3.7
North Carolina	2.8
North Dakota	3.7
Ohio	4.5
Oklahoma	3.6
Oregon	3.3
Pennsylvania	3.5
Rhode Island	3.5
South Carolina	2.7
South Dakota	4.3
Tennessee	3.3
Texas	3.3
Utah	3.1
Vermont	3.2
Virginia	3.5
Washington	5.2
West Virginia	3.2
Wisconsin	3.2

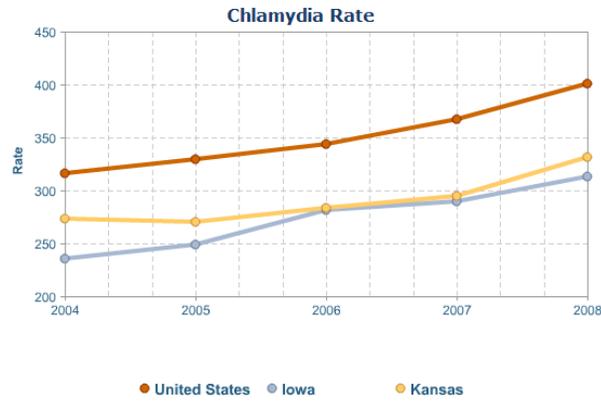
	Limited Activity Days per Month
United States	3.6
Wyoming	3.2

Notes: Data reflect the number of days in the previous 30 days when a person indicates their activities are limited due to physical health difficulties.

Sources: United Health Foundation based on the Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention, 2007. United Health Foundation State Rankings 2007 Edition, United Health Foundation, 2007, available at <http://www.unitedhealthfoundation.org/ahr2007/phealthdays.html#Table36>.

NOTE: Though KS ranks average (25th) in the US for prevalence rates for disabilities, it ranks highest in terms of limited activity days per month. (See <http://www.statehealthfacts.org/comparemaptable.jsp?ind=654&cat=2>)

Number of Reported Chlamydia Cases per 100,000 Population, 2004 – 2008



(Source: <http://www.statehealthfacts.org/comparetrend.jsp?cat=2&sort=a&sub=29&typ=3&yr=63&ind=100&srgn=18&srgn=17&srgn=1>)

Notes: U.S. total includes cases reported by Washington, D.C., but does not include territories.

Sources: Table 3, STD Surveillance 2008, Division of Sexually Transmitted Diseases, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention, Department of Health and Human Services, 2010, available at <http://www.cdc.gov/std/stats08/tables/3.htm>.

Chlamydia Screening Percentages Reported by Commercial and Medicaid Plans by State and Year

Table: Percentage of sexually active female enrollees aged 16-25 years who were screened for Chlamydia trachomatis infection by state and year – Healthcare Effectiveness Data and Information Set (HEDIS), United States, 2000-2008†*

State	No. of health plans reporting in 2008	No. of sexually active enrollees in 2008	Year				
			2000	2002	2004	2006	2008
United States	585	2,759,814	25.4	29.8	38.2	43.5	44.7
Alabama	4	--	--	--	--	--	--
Alaska	1	--	--	--	--	--	--
Arizona	11	43,381	27.0	25.0	38.5	42.6	43.6
Arkansas	5	6,258	--	--	--	--	27.6
California	41	395,606	32.2	38.7	47.3	52.9	52.2
Colorado	13	43,838	27.6	29.6	43.9	42.3	46.8
Connecticut	14	54,321	24.4	32.6	40.0	46.1	51.4
Delaware	11	16,382	20.5	28.4	35.1	37.6	49.6
District of Columbia	5	3,467	37.6	39.7	50.3	52.6	73.2
Florida	29	115,950	24.7	19.4	29.8	37.5	43.8
Georgia	12	71,814	31.1	33.5	39.4	43.3	42.1
Hawaii	6	13,884	--	47.0	--	--	56.2
Idaho	8	36,497	--	25.0	--	27.2	33.6
Illinois	19	79,627	16.1	19.4	26.3	31.3	35.2
Indiana	17	75,278	17.9	20.8	31.1	38.0	34.9
Iowa	13	37,446	19.8	20.2	26.0	29.4	34.5
Kansas	13	41,252	17.7	20.7	23.3	29.7	36.8
Kentucky	6	26,035	19.5	22.9	30.7	35.5	36.3
Louisiana	6	16,279	--	--	--	--	32.0
Maine	6	11,835	26.0	27.1	--	43.7	39.5
Maryland	18	89,578	32.5	39.7	48.5	50.2	50.5
Massachusetts	18	119,259	21.5	34.1	44.8	51.3	57.1
Michigan	25	86,962	30.6	33.4	40.6	44.9	50.1

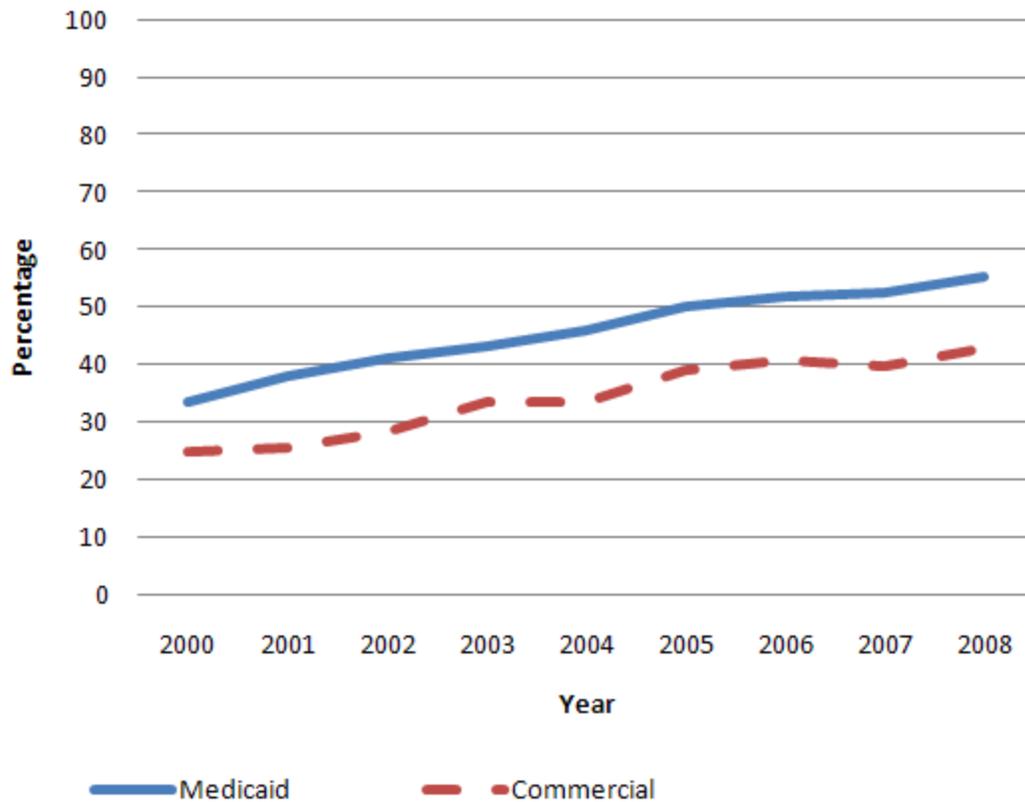
Minnesota	16	60,039	19.2	29.1	31.0	40.2	47.6
Mississippi	4	--	--	--	--	--	--
Missouri	12	28,771	17.3	30.3	42.3	41.4	37.1
Montana	2	--	--	--	--	--	--
Nebraska	3	--	--	--	--	--	--
Nevada	7	11,205	--	29.1	37.0	47.8	46.1
New Hampshire	5	10,965	--	28.2	36.2	42.9	46.3
New Jersey	21	113,346	16.0	16.7	31.9	38.6	46.2
New Mexico	12	28,431	37.3	32.6	35.5	44.6	48.7
New York	35	237,473	27.5	31.6	40.1	47.3	51.2
North Carolina	7	54,680	19.7	21.6	28.1	34.7	36.2
North Dakota	2	--	--	--	--	--	--
Ohio	22	166,659	24.7	33.3	34.5	34.3	37.4
Oklahoma	7	10,799	10.6	15.4	--	--	28.2
Oregon	9	31,790	34.5	40.5	--	39.6	39.9
Pennsylvania	22	152,381	19.8	24.3	30.4	37.9	45.2
Rhode Island†	7	12,729	39.9	37.2	44.4	44.5	--
South Carolina	7	14,299	19.0	21.2	24.7	26.8	33.6
South Dakota	0	--	--	--	--	--	--
Tennessee	15	94,143	19.2	20.3	40.3	42.7	39.7
Texas	25	145,902	20.9	24.6	32.2	35.7	38.2
Utah	6	6,938	--	14.2	17.7	19.6	26.5
Vermont†	5	8,194	--	--	--	41.4	--
Virginia	12	82,577	29.1	32.4	36.7	43.5	39.7
Washington	47	38,302	33.3	35.4	43.5	47.5	40.5
West Virginia	6	6,151	--	--	30.3	35.8	34.1
Wisconsin	21	54,302	30.7	28.4	34.2	40.2	41.8
Wyoming	1	--	--	--	--	--	--

* Age range for data collected by year: 16-26 for 2000/2002; 16-25 for 2004/2006; 16-24 for 2008

† Data not available for states with less than 5 participating health plans

‡ Number of health plans reporting/Number of sexually active enrollees reported for 2006

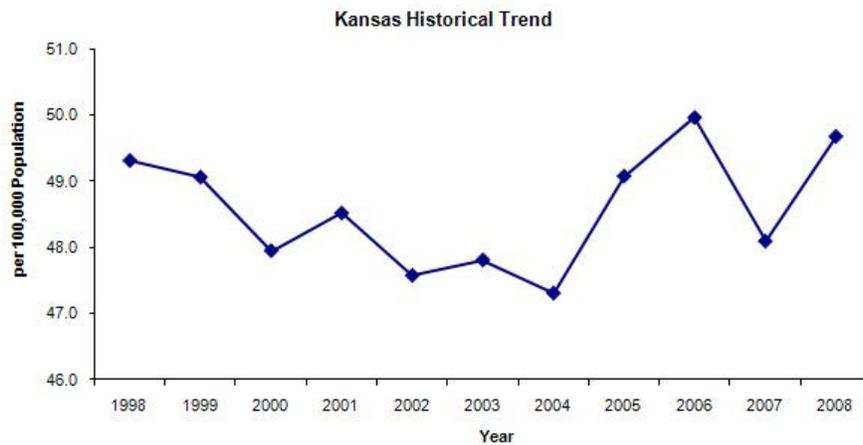
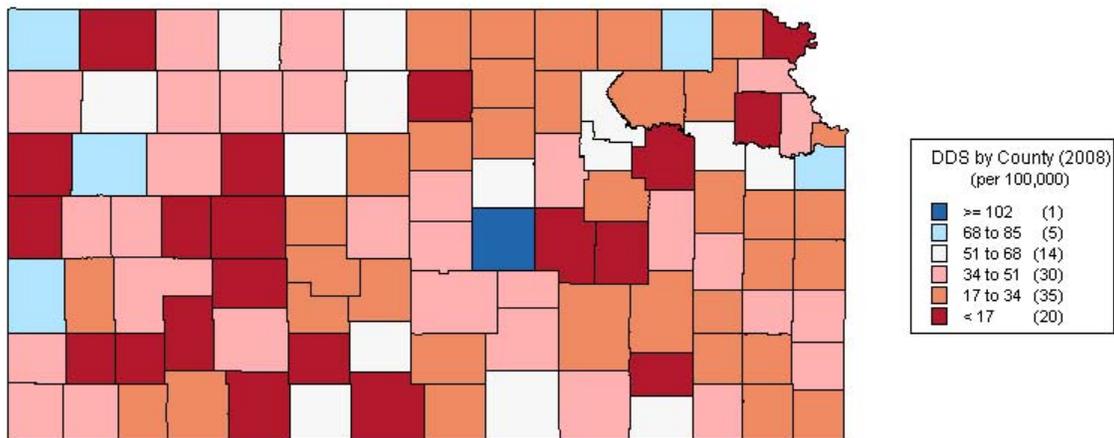
Figure. Percentage of sexually active female enrollees aged 16-25 years* who were screened for Chlamydia trachomatis infection, by health plan type and year - Healthcare Effectiveness Data and Information Set, United States, 2000-2008



* Age range for data collected by year: 16-26 for 2000-2002; 16-25 for 2003-2007; 16-24 for 2008

Content Source: [Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention \(http://www.cdc.gov/std/chlamydia/female-enrollees-00-08.htm#figure1\)](http://www.cdc.gov/std/chlamydia/female-enrollees-00-08.htm#figure1)

Dentist to Population Ratio: DDS (Doctor of Dental Surgery) (per 100,000) 2008

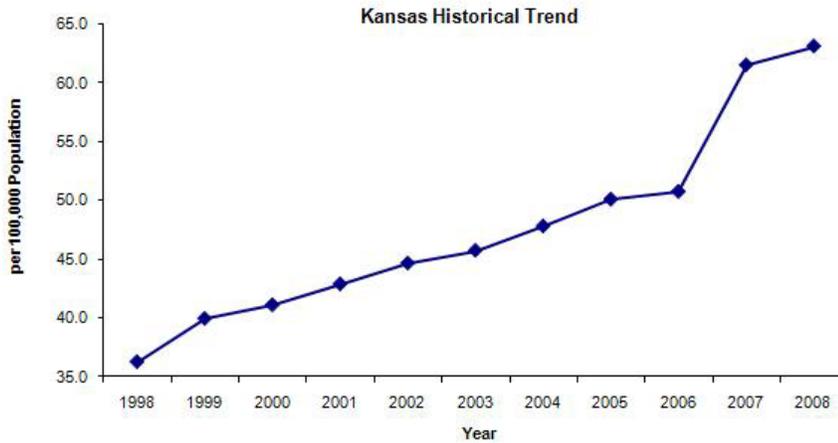
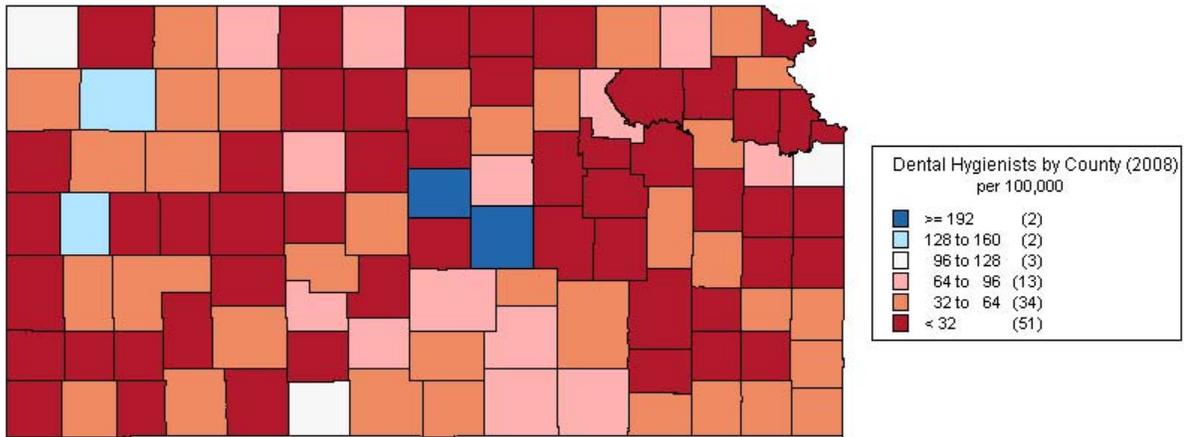


Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/access_to_care/health_professions/dentist_ratio/dentist_ratio_2008.htm

Data Source:	KIC – Kansas Information for Communities/KDHE http://kic.kdhe.state.ks.us/kic/index2.html
Numerator:	Number of dentists (DDS) with an active status and with a practice and/or mailing address within the state of Kansas.
Denominator:	Estimated population of the state of Kansas. Table

Dentist to Population Ratio: Dental Hygienist
(per 100,000)
2008

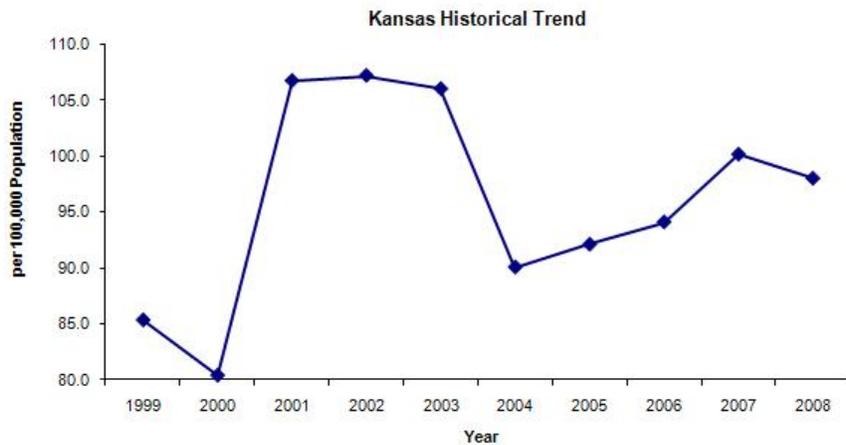
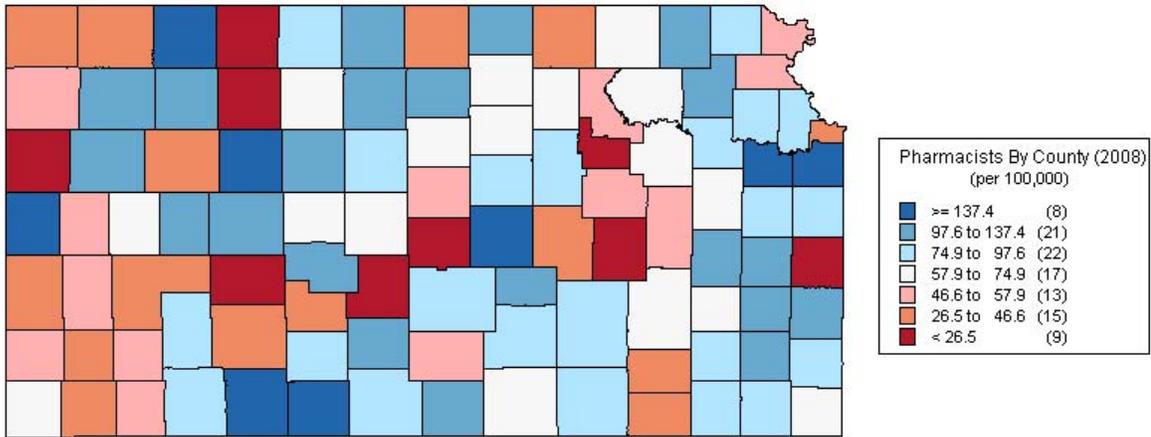


Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/access_to_care/health_professions/dental_hygienist_ratio/dental_hygienist_ratio_2008.htm

Data Source:	KIC – Kansas Information for Communities/KDHE http://kic.kdhe.state.ks.us/kic/OHA/county_profile.html
Numerator:	Number of Dental Hygienists with an active status and with a practice and/or mailing address within the state of Kansas.
Denominator:	Estimated population of Kansas counties. Table

Pharmacist to Population Ratio 2008

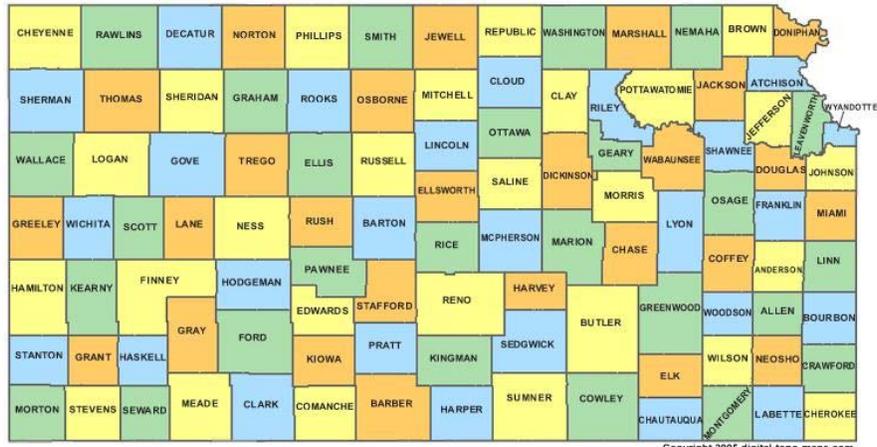


Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/access_to_care/health_professions/pharm_ratio/pharm_ratio_2008.htm

Data Source:	KIC – Kansas Information for Communities/KDHE http://kic.kdhe.state.ks.us/kic/index2.html
Numerator:	Number of pharmacists with an active status and a mailing address within the state of Kansas.
Denominator:	Estimated population of the state of Kansas. Table

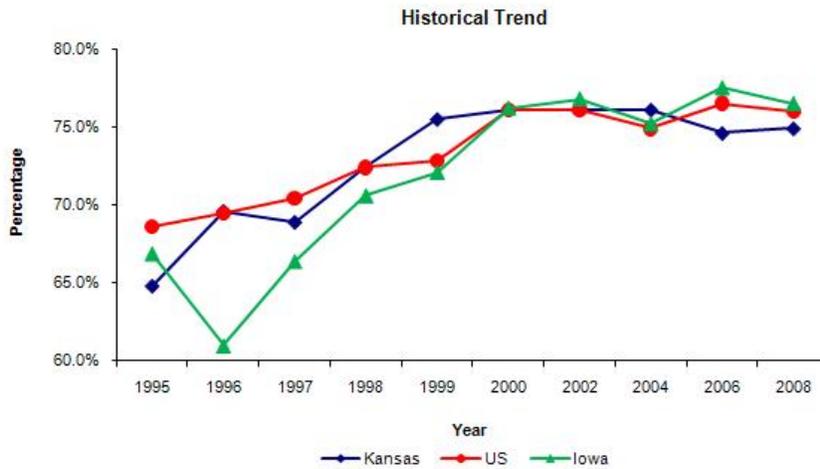
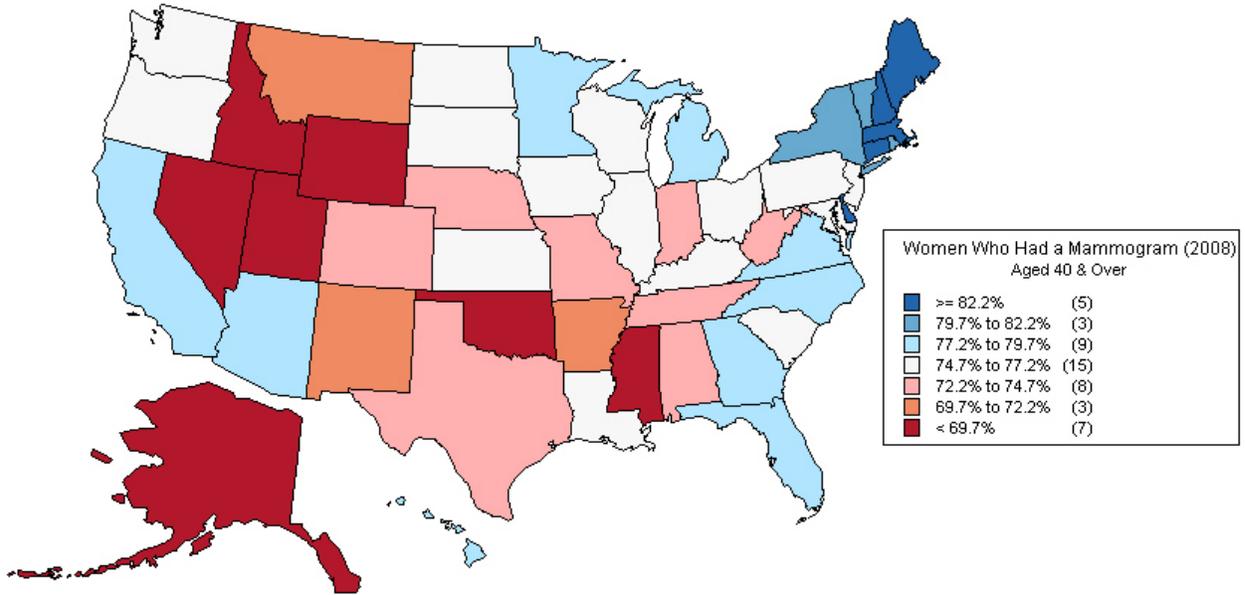
Kansas County Map



Map Courtesy of Digital Map Store

Copyright 2005 digital-topo-maps.com

**Women, 40 Years and Older, Who Reported They Had a Mammogram
2008**

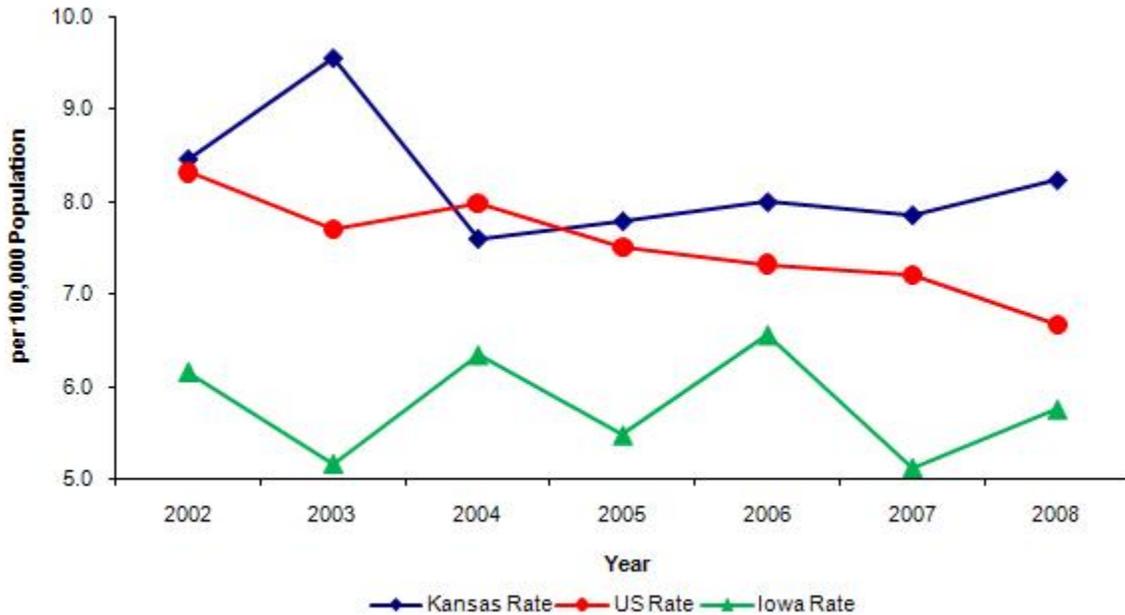


Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/health_and_wellness/chronic_and_infectious_diseases/mammogram/mammogram_2008.htm

Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)/KDHE http://apps.nccd.cdc.gov/brfss/index.asp
Numerator:	Female respondents aged >=40 years who report having had a mammogram within the previous 2 years.
Denominator:	Female respondents aged >=40 years who report ever having or never having had a mammogram (excluding unknowns and refusals).

Adult Admissions For Diabetes Without Complications
(per 100,000)



Ref:

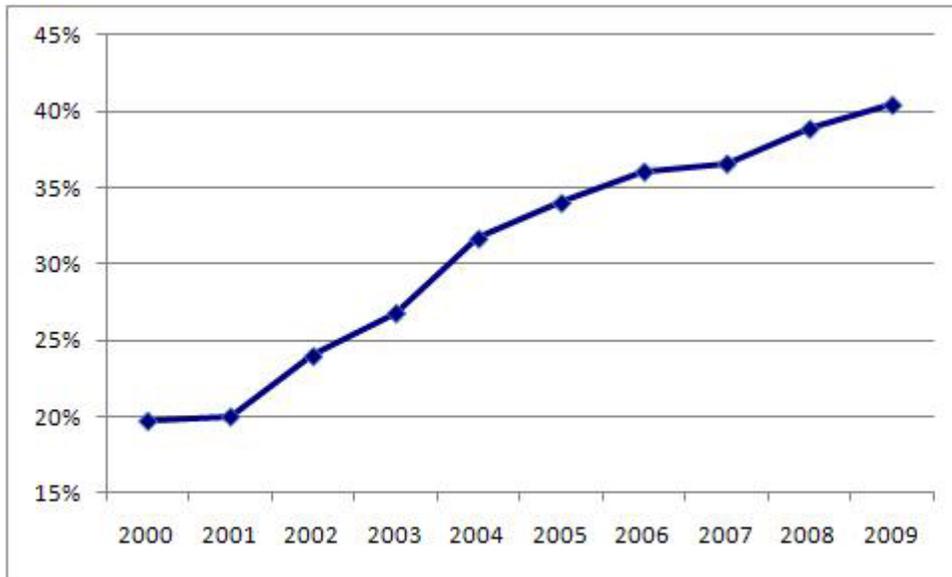
http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/quality_and_efficiency/diabetes/diabetes_without_complications.htm

Data Source:	AHRQ HCupnet http://hcupnet.ahrq.gov/
Numerator:	Number of patients aged ≥ 18 years discharged from hospitals with a principal diagnosis of Diabetes Without Complications.
Denominator:	Estimated population, aged ≥ 18 years, of the geographic region. Obtained from the US Census website: http://www.census.gov/hhes/www/cpstc/cps_table_creator.html

APPENDIX C

Selected Kansas Health Indicator Trends Suggesting Opportunity for Cross-Dissemination of Successful Interventions (Application of Lessons Learnt to Other Areas)

Medicaid Eligible Children Who Received Any Dental Services During the Year



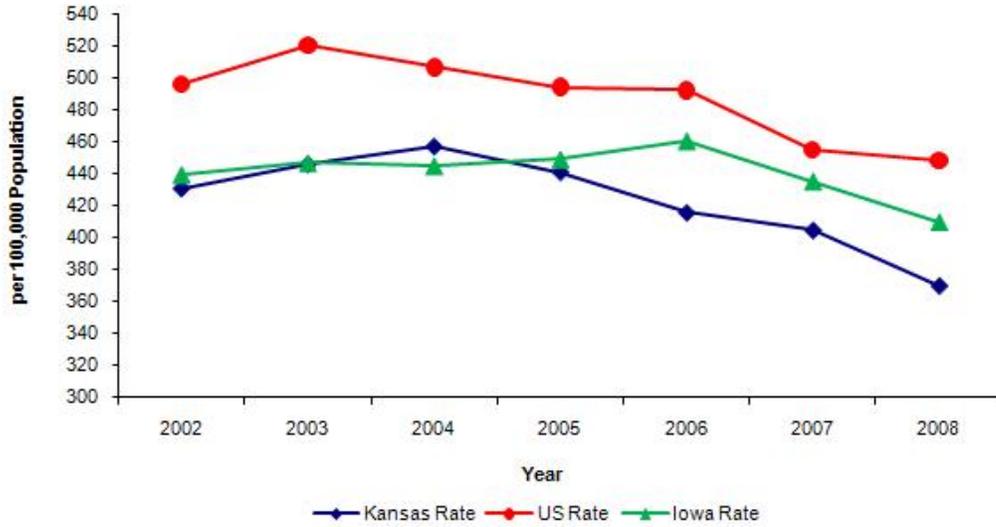
Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/health_and_wellness/maternal_and_child_health/dental_services.htm

Data Source:	Medicaid Management Information System (MMIS); report created for CMS Report 416
Numerator:	All Medicaid eligible children who received dental services during the year.
Denominator:	Medicaid eligible children, ages 20 and under.

Adult Admissions For Congestive Heart Failure

(per 100,000)



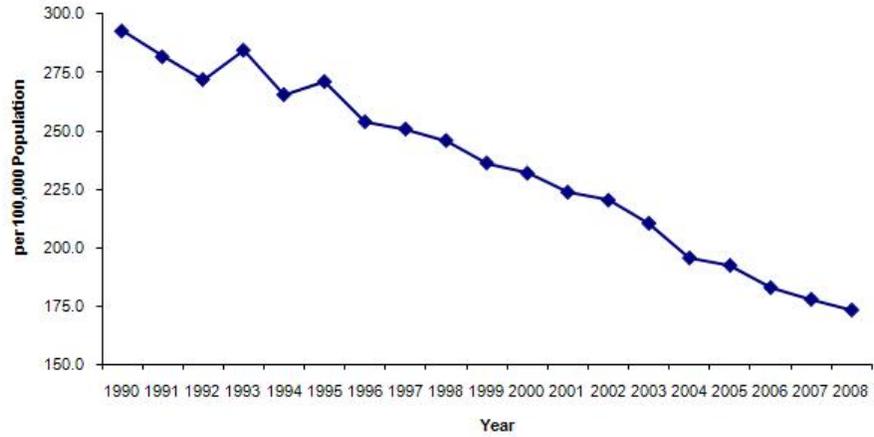
Year	Kansas Rate	Kansas Count	US Rate	US Count	Iowa Rate	Iowa Count
2002	431	8,502	497	1,056,076	440	9,633
2003	446	8,821	521	1,118,526	447	9,939
2004	457	9,082	507	1,102,398	445	9,895
2005	441	8,831	495	1,087,767	449	10,001
2006	416	8,420	493	1,097,268	461	10,192
2007	405	8,141	456	1,023,783	435	9,846
2008	370	7,467	449	1,018,827	410	9,322

Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/quality_and_efficiency/heart_disease_and_stroke/congestive_heart_failure.htm

Data Source:	AHRQ HCupnet http://hcupnet.ahrq.gov/
Numerator:	Number of patients aged >= 18 years discharged from hospitals with a principal diagnosis of Congestive Heart Failure.
Denominator:	Estimated population, aged >= 18 years, of the geographic region. Obtained from the US Census website: http://www.census.gov/hhes/www/cpstc/cps_table_creator.html

Age Adjusted Mortality Rate For Heart Disease (per 100,000)



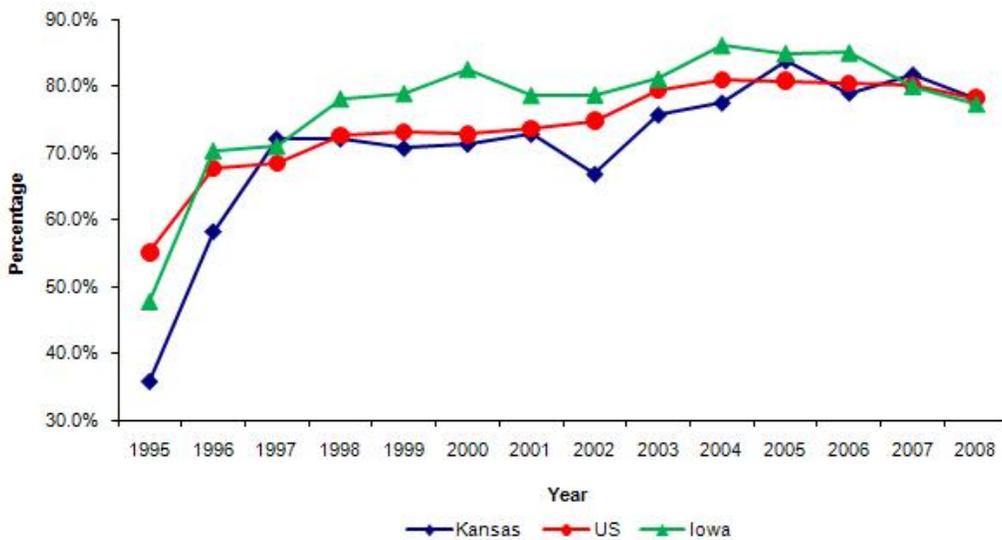
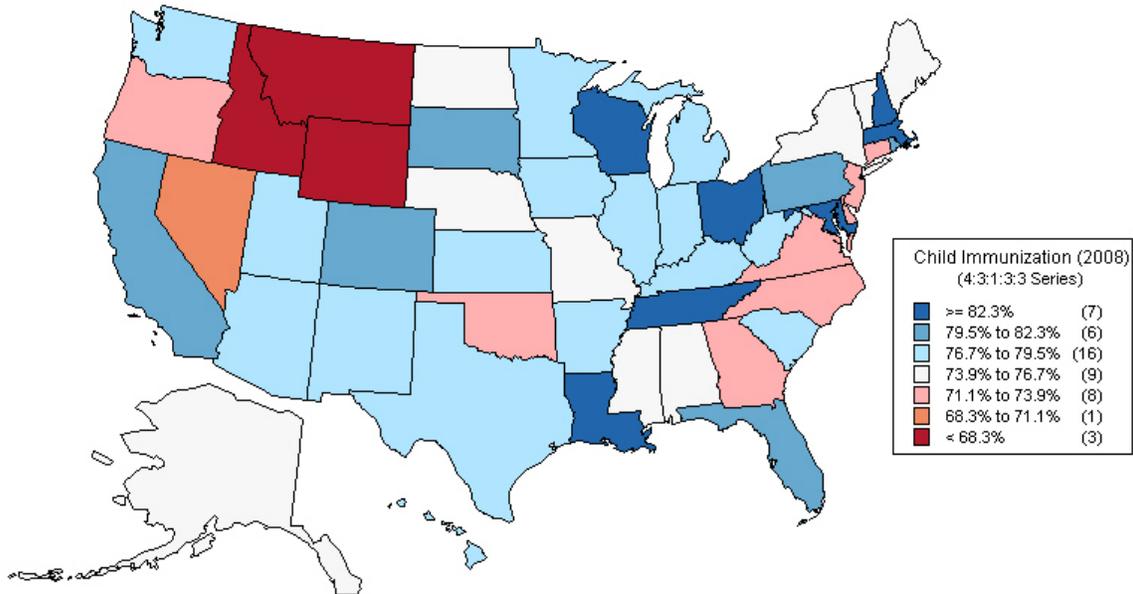
Year	Kansas	Kansas Count
1990	292.7	7,634
1991	281.7	7,467
1992	272.0	7,363
1993	284.5	7,809
1994	265.5	7,395
1995	271.1	7,632
1996	253.9	7,229
1997	250.8	7,225
1998	245.9	7,164
1999	236.3	6,956
2000	231.9	6,890
2001	223.8	6,691
2002	220.4	6,639
2003	210.5	6,428
2004	195.7	6,002
2005	192.5	5,937
2006	183.0	5,831
2007	178.0	5,727
2008	173.4	5,681

Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/health_and_wellness/risk_of_morbidity/heart_disease.htm

Data Source:	Kansas Information for Communities (KIC)/KDHE (Deaths Database) http://kic.kdhe.state.ks.us/kic/death.html
Numerator:	Kansas resident deaths in which the cause of death was Heart Disease.
Denominator:	Estimated population of Kansas.

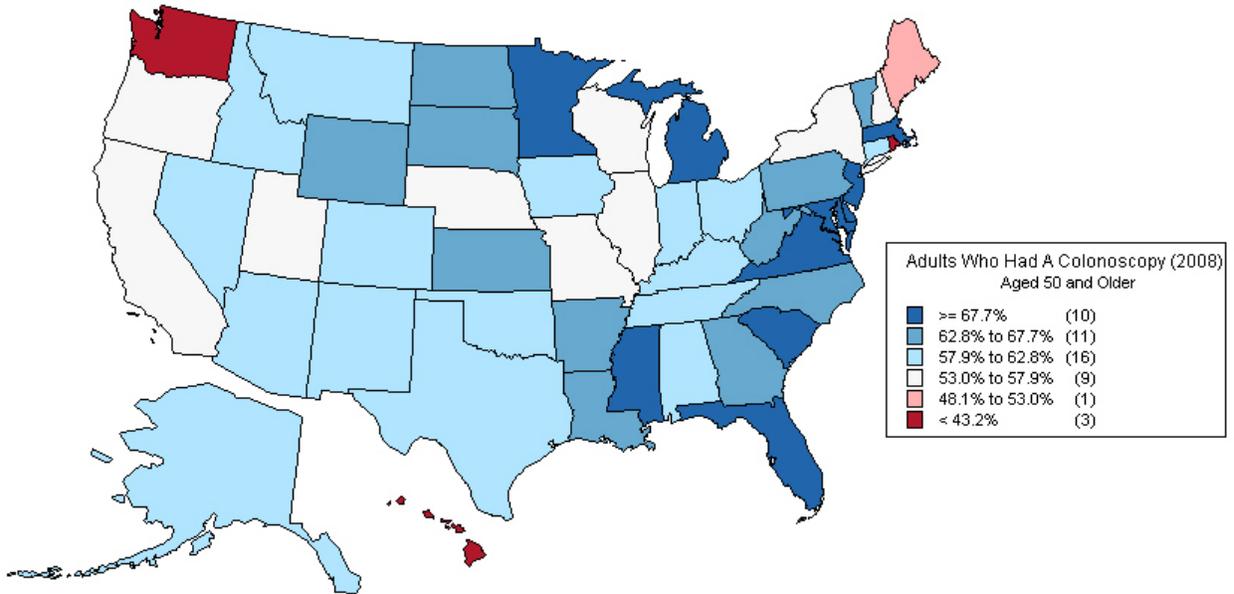
**Young Children Who Are Fully Immunized (4:3:1:3:3 series)
2008**



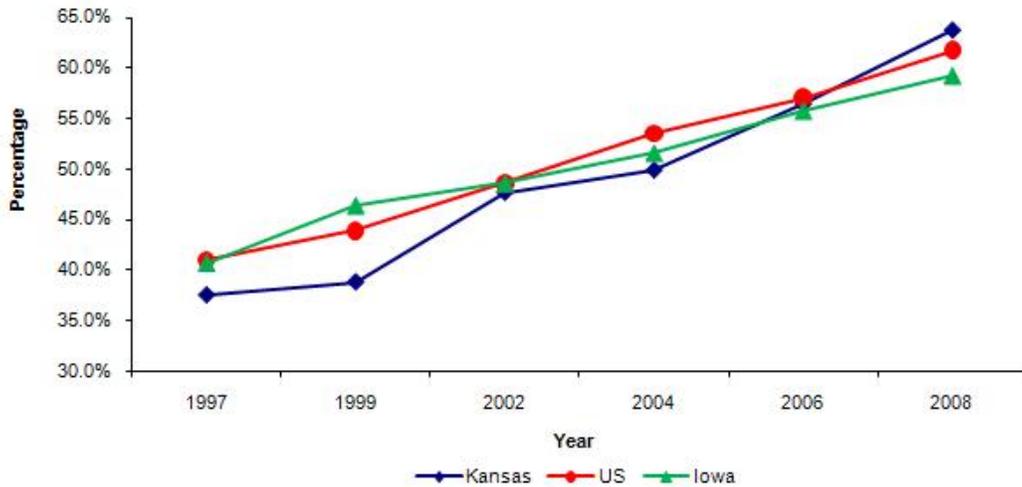
Ref:
http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/health_and_wellness/immunization/child_immunization/child_immunization_2008.htm

Data Source:	National Immunization Survey http://www.cdc.gov/vaccines/stats-surv/imz-coverage.htm#nisadult
Numerator:	Children aged 19-35 months who have received the full 4:3:1:3:3* series of immunizations.
Denominator:	Population of children aged 19-35 months for the geographic region.

**Adults, 50 Years and Older, Who Reported Having a Colonoscopy
2008**



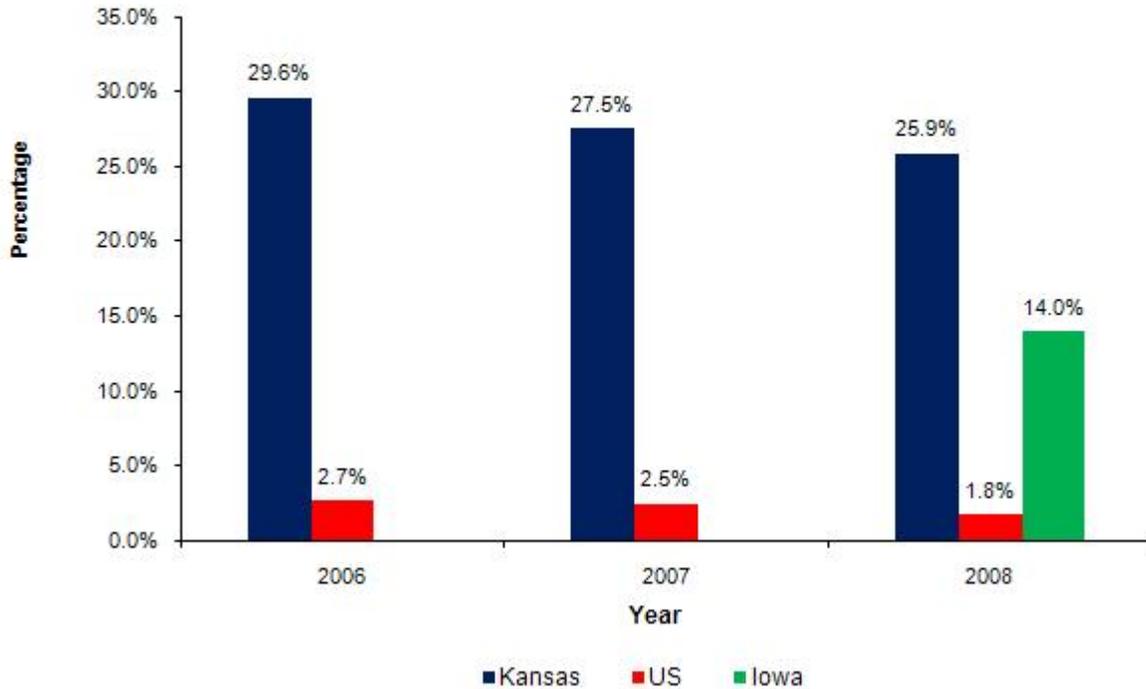
Historical Trend



Ref:
http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/health_and_wellness/chronic_and_infectious_diseases/colonoscopy/colonoscopy_2008.htm

Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)/KDHE http://apps.nccd.cdc.gov/brfss/index.asp
Numerator:	Respondents aged ≥ 50 years who report having had either a sigmoidoscopy or colonoscopy within the previous 5 years.
Denominator:	Respondents aged ≥ 50 years who report ever having or never having either a sigmoidoscopy or colonoscopy (excluding unknowns and refusals).

Persons With a Severe and Persistent Mental Illness That Are Competitively Employed



Ref:

http://www.khpa.ks.gov/data_consortium/data_consortium_health_indicators/health_indicators/quality_and_efficiency/mental_health/spmi_employment.htm

Data Source:	CMHS – National Mental Health Information Center http://mentalhealth.samhsa.gov/cmhs/mentalhealthstatistics/
Numerator:	Residents aged ≥ 18 years with a severe and persistent mental illness that have supported employment.
Denominator:	Residents aged ≥ 18 years with a severe and persistent mental illness (excluding states without Evidence Based Practices (EBP)).

APPENDIX D

National Recognition for KHPA's Quality Improvement Initiatives:

Examples of Kansas activities in the quality improvement (QI) arena that are highlighted by the National Association for State Health Policy (NASHP) as characteristics of leading QI Partnership states, several of which were spear-headed by KHPA in recent years include (listed by topic area):

A) Data collection, aggregation, and standardization for performance measurement

Data aggregation and standardization strategies are those which standardize data, and streamline data collection, to make analysis more efficient and complete.

- Use of a collaborative, public forum/process for building consensus and ensuring key stakeholder buy-in for developing data policies and procedures, streamlined and minimally-burdensome data mechanisms, and public reporting tools/channels. Kansas example: Data Consortium
- Investing in multi-payor databases which focus on harmonizing multiple data sources into an integrated data model with standard performance measure sets. Kansas example: Data Analytic Interface
- Kansas is already using national standard measure-sets (e.g. HCUP, NCQA, Healthy People 2010, National Health Disparities Report, etc.) in a publicly available, state-level dashboard with peer state and national benchmarks. Any new measures developed as a result of Health Reform initiatives will be incorporated in the future.
- Kansas is in the process of developing a Medical Home model with aligned incentives for providers as well as an outcome monitoring framework that will draw upon national standards

B) Public reporting and transparency of quality and/or cost data to drive accountability and improvement

Public reporting strategies aim to increase transparency through reporting requirements and public availability of data.

- Kansas engaged in a one-year, multi-stakeholder process (Data Consortium and its 4 workgroups) to develop a comprehensive set of indicators on Quality & Efficiency, Access to Care, Affordability & Sustainability, and Health & Wellness that are routinely reported online as part of the Kansas Health Indicators dashboard
- The Data Consortium regularly engages in public review of aggregated reports generated from private payer, Medicaid, and State Employee Health Plan claims databases.
- KHPA has also been conducting comprehensive reviews of operational and quality aspects of the various programs in its purview
- The Kansas Health Data Consortium ensures coordination between various partner stakeholders such as the Kansas Healthcare Collaborative (a joint Kansas Hospital Association and Kansas Medical Society effort), the Kansas Dept of Health and Environment, and KHPA

with plans to address quality issues such as hospital acquired infections starting in 2010. CMS hospital-acquired condition data, when available will greatly aid this process.

C) Payment reform and alignment of financial incentives to encourage value-based purchasing

Payment reform strategies are those which aim to align provider payment with quality and efficiency.

- Kansas participated in phases I and II of the State Quality Improvement Institute that facilitated collaborative learning/ information sharing between states and national experts on payment reform, medical home incentivization, value-based purchasing, and coordination of care.

D) Consumer engagement to drive change and encourage care self-management

Consumer engagement strategies are those which ensure consumer involvement in quality initiatives, and promote tools to assist consumers in care self-management.

- KHPA has a Consumer Advisory Council that has helped provide a consumer-perspective to its policy recommendations
- The Kansas Health Online initiative (<http://www.kansashealthonline.org/index.php>) involved collaboration between KHPA and medical and public libraries to promote health literacy and consumer engagement in health-related decision making

E) Provider engagement through evidence-based practice improvement tools and guidelines

Provider engagement strategies are those which ensure provider involvement in quality initiatives, and promote tools to assist providers in delivering quality care.

- Kansas is pursuing inter-state collaborations – e.g. with Missouri for the Aligning Forces for Quality (AF4Q) initiative funded by the Robert Wood Johnson Foundation to provide feedback to providers on key quality measures for patients under their care so as to encourage performance improvement and better outcomes for patients.
- The quality reporting required from providers as part of HIE/HIT meaningful use criteria could potentially be aggregated and used to provide blinded feedback in the form of comparisons with peer benchmarks to spur improvements and cross-dissemination of successful evidence-based practice patterns to help continuous performance improvement in the Kansas provider community.
- The Institute for Healthcare Improvement “bundle of evidence-based interventions” methodology used successfully for the 100k Lives and 5M Lives campaigns to reduce mortality and morbidity could be leveraged in Kansas to expedite the effective adoption of evidence-based medicine even by resource-strapped small facilities or practices.