# Utah Pharmacy Data Plan Version 1

April 22, 2004



Utah Pharmacy Data Advisory Committee Utah Health Data Committee

> Office of Health Care Statistics Center for Health Data Utah Department of Health

For more information contact:

Office of Health Care Statistics Center for Health Data Utah Department of Health PO Box 144004 Salt Lake City UT 84114-4004 Office: (801) 538-7048 Fax: (801) 538-9916 Email: healthcarestat@utah.gov

This report is also available on the Internet at URL: <u>http://health.utah.gov/hda/</u>

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"The purpose of the [Utah health data] committee is to direct a statewide effort to collect, analyze, and distribute health care data to facilitate the promotion and accessibility of quality and cost-effective health care and also to facilitate interaction among those with concern for health care issues."

> Utah Code Title 26 Chapter 33a, Utah Health Data Authority Act 26-33a-104(1)

# **Executive Summary**

Increased uses of prescription drugs reflect medical advances but also place new challenges of containing costs and improving medication safety to health care providers, purchasers, payers, quality improvement organizations, health educators, public health programs, and policymakers. However, none of the affected organizations alone can effectively address the new challenges. Statewide collaborative responses and actions are necessary.

The Utah Health Data Committee (HDC), a Governor appointed statutory committee, has a mandate to "direct a statewide effort to collect, analyze, and distribute health care data to facilitate the promotion and accessibility of quality and cost-effective health care and also to facilitate interaction among those with concern for health care issues." (Utah Code §26-33a-104) After two years of public discussions and needs assessment, the HDC proposed the launch of a new statewide initiative to collect and report pharmacy data. The purpose of this initiative is to create a statewide pharmacy database and use the data for public health surveillance of outpatient morbidity, improvements in appropriate uses of prescription drugs, medication safety and other prescription drug-related research projects. The HDC has created and directed the 18-member Utah Pharmacy Data Advisory Committee (UPDAC) to guide the Office of Health Care Statistics (OHCS) in the development of the Utah Pharmacy Data Plan.

The Utah Pharmacy Data Plan, Version I, has been developed according to the requirements of the Health Data Authority Act. The Plan identifies the key issues related to prescription drug utilization and problems amendable to improvement through better information on and analysis of pharmacy data. The UPDAC conducted an inventory of available pharmacy data sources in the State of Utah and concluded that no population-based prescription data is available for public use. The need of statewide pharmacy data collection is justifiable (See Section II).

The Utah Pharmacy Data Plan will be implemented incrementally. Phase I will be a pilot project to collect and analyze the prescription claims data from voluntarily participating health plans in Utah. The UPDAC selected ten prescription data indicators for public reporting to support public health surveillance, quality improvement and intervention. Specific analytical methods and report templates have been developed and are presented in Section III. The ten indicators are:

- 1. Asthma Asthma Medication Prescription Rates & Appropriate Asthma Medication Use
- 2. Antibiotics Effective Use of Antibiotics
- 3. Antidepressants Appropriate Use of Antidepressants for Adolescents
- 4. Depression During Pregnancy Appropriate Use of Medications for Treatment of Depression, OCD and Anxiety Disorders During Pregnancy
- 5. Diabetes Appropriate Use of Diabetes Medication
- 6. Generic Effective Use of Generic Drugs
- 7. Hypercholesterolemia Appropriate Use of Hypercholesterolemia Medication
- 8. Hypertension Appropriate Use of Hypertension Medication
- 9. Pain Management Effective Use of Pain Medications
- 10. Polypharmacy Use of Atypical Antipsychotics

Implementation issues are discussed in Section IV, including confidentiality, database standards, participating agreements, database management, and coordination of financial resources. The Plan proposes the establishment of a health plan pharmacy database oversight committee to monitor the activities related to health plans' pharmacy data.

If Phase I objectives are successfully completed, the UPDAC will plan for Phase II, the enhancement of pharmacy data collection and utilization. The Health Data Committee is committed to make the data useful for statewide intervention and improvement.

The Utah Pharmacy Data Plan is the result of collaboration among many individuals and organizations in the state. Each of the participating organizations made, and will continue to make, contributions to this collaborative endeavor. Improvement of the health of Utahns is the ultimate goal of the Utah Pharmacy Data Initiative.

# Acknowledgement

The Utah Pharmacy Data Plan was commissioned by the Utah Health Data Committee and produced by the Office of Health Care Statistics Utah Department of Health (UDOH) under the direction of the Utah Pharmacy Data Advisory Committee. The Health Data Committee approved this plan on April 6, 2004.

#### Health Data Committee Members:

Clark B. Hinckley, Chair Robert P. Huefner, Vice Chair Kim Bateman Ronald E. Casper Leslie Francis Terry Haven Annette Herman Scott Ideson Mark E. Towner Gail McGuill Sandra L. Peck Greg Poulsen Marilyn Tang Large Business Representative Public Health Representative Physicians Representative Small Business Representative Public Health Representative Consumer Advocate Representative Health Maintenance Organizations Representative Third Party Payer Representative Public Interest Representative Nursing Representative Consumer Advocacy Hospital Representative Business Representative

#### **UDOH Pharmacy Data Advisory Committee Members:**

Barry Nangle, PhD, Chair UDOH, Center for Health I	Data
Doug Burgoyne, PharmD, Vice Chair Intermountain Health Care	Health Plans
LaDene Larsen, RN, Vice Chair, UDOH, Bureau of Health H	Promotion
Reid Barker Utah Pharmaceutical Assoc	ciation
Val Bateman, MHA, MBA, CHE Utah Medical Association	
Diana I. Brixner. RPh, PhD University of Utah, Dept. of	f Pharmacy Practice
Sharon Donnelly, MS HealthInsight	
Robert Jaramillo, RPh Altius Health Plans	
Lynette Hansen, MS, CPHQ United HealthCare of Utah	
Jeffery E. Hawley, PhD Utah Insurance Departmen	t
Terry Killilea, PharmD Regence BlueCross/BlueSh	nield of Utah
Dennis Kunimura, MS Public Employees Health F	Plans
Jake Murdock, PharmDDeservet Mutual Benefits A	dministration
Gary M. Oderda, PhD, MPH University of Utah, Depart	ment of Pharmacy Practice
Duane Parke, RPh, MHA UDOH, Division of Health	Care Finance
Jan Root, PhD Utah Health Information N	etwork (UHIN)
Marvin Sims Utah Div. of Occupational	& Professional Licensing
Darryl Wagner, RPh IHC Health Plans/Utah Pha	armacy Association

# Staff of the Utah Pharmacy Data Advisory Committee and the Contributors to the Utah Pharmacy Data Plan:

Wu Xu, PhD, Executive Secretary for HDC,	UDOH, Office of Health Care Statistics
Lori Brady	UDOH, Office of Health Care Statistics
Paul Hougland, MD	UDOH, Office of Health Care Statistics
Lyle Odendahl, JD	UDOH, Assistant Attorney General
Carol Masheter, PhD	UDOH, Office of Health Care Statitics
Steve Pickard, MBA	UDOH, Office of Health Care Statistics
Janet Scarlet	UDOH, Office of Health Care Statistics
Rachele Simmering, BS	UDOH, Office of Health Care Statistics
Sharon Donnelly, MS	HealthInsight

## Special thanks also go to following individuals who provided input to The development of Utah Pharmacy Data Plan

### Participants in the Researchers Focus Group Discussion Conducted on May 6, 2003:

Kim Bateman, MD Diane Brixner, RPh, PhD Sharon Donnelly, MS Steve Donnelly, PhD Jeff Geppert, JD Paul Hougland, MD Denise Love, MBA Jonathan Nebeker, MD Gary Oderda, PharmD, MPH Duane Parke Matthew Samore, M.D HealthInsight U of U Pharmacotherapy Outcomes Research Center HealthInsight HealthInsight Stanford University Utah Department of Health National Association of Health Data Organization Veterans Administration SLC Medical Center U of U Pharmacotherapy Outcomes Research Center Utah Department of Health University of Utah Internal Medicine

## Participants in the Health Plan Medical Directors Discussion Conducted on May 20, 2003 and Other Individual Discussions:

Steve Barlow, MD
Phil Bryson, MD
Ken Buchi, MD
Julie Day, MD
Dennis Harston, MD
Paul Molchan, MD
Larry Staker, MD
Scott Williams, MD, MPH

IHC Health Plans Regence BlueCross BlueShield of Utah *HealthInsight* University of Utah Health Network Altius Health Plans Regence BlueCross BlueShield of Utah Deseret Mutual Benefits Administration Utah Department of Health

## UDOH Participants in the Division of Community and Family Health Services' Needs Assessment Conducted in June 2003 and Follow-up Discussions:

- Lois Bloebaum, RN George Delavan, MD Rebecca Giles, MPH Trisha Keller Ladene Larson, RN Craig Merrill, MPH Nancy C. Neff Robert Rolfs, M.D. Alfred N. Romeo, R.N., M.S. Melissa Stevens Nan Streeter, RN Joan Ware, MSPH, RN
- Reproductive Health Program\* Community & Family Health Services Asthma Program\* Injury and Violence Prevention Program Bureau of Health Promotion Diabetes Program Diabetes Program\* State Epidemiologist Child, Adolescent and School Health Program\* Epidemiologic Surveillance Program Bureau of Maternal and Child Health Heart Disease & Stroke Prevention Program\* \* Made contributions to develop the indicators in this Plan.

# Participants in the Health Data Committee Ad Hoc Subcommittee Discussion Conducted on July 1, 2003:

Juli Antonow, MD Kim Bateman, MD Scott Ideson Greg Poulson UnitedHealth Care of Utah *HealthInsight* Regence BlueCross/BlueShield of Utah Intermountain Health Care

## **Other Expert Contributors:**

Tamara Lewis, MD, MPH	Intermountain Health Care
William Stockdale, MBA	Univ. of Utah, Department of Pharmacy Practice

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# **SECTION I**

# **INTRODUCTION**

The Committee shall develop and adopt by rule, following public hearing and comment, a health data plan that identify the key health care issues, questions, and problems amenable to resolution or improvement through better data, more extensive or careful analysis, or improved dissemination of health data.

Utah Code Title 26 Chapter 33a, Utah Health Data Authority Act 26-33a-104(2)

Health care purchasers, providers, payers, public health programs, and federal and state health officials have devoted considerable attention to medication safety and the rising cost of prescription drugs in the nation and states. Many policy and research questions relating to prescription drugs and non-acute morbidity status of a population cannot be answered without a pharmacy database.

Utah Health Data Committee (HDC), a Utah Governor appointed statutory committee, has proposed the launch of a new statewide initiative to collect and report pharmacy data. The purpose of this initiative is to create a statewide pharmacy database and use the data for public health surveillance of outpatient morbidity, improvements in appropriate uses of prescription drugs, medication safety, and other prescription drug-related research projects.

The Utah Pharmacy Data Advisory Committee (UPDAC), created by the HDC, has guided the Office of Health Care Statistics in the development of the Utah Pharmacy Data Plan from October 2003 to April 2004. This Pharmacy Data Plan documents the HDC's feasibility study and available pharmacy data sources. The UPDAC selected ten prescription data indicators for public reporting to support public health surveillance and quality improvement. Specific analytical methods and report table templates were developed and are reported in this Data Plan.

The Utah Pharmacy Data Plan includes implementation issues, such as confidentiality, database standards, health plan participation agreement, database management, and coordination of financial resources. The Plan proposes to establish a health plan pharmacy database oversight committee to monitor these implementation issues among the activities related to health plans' pharmacy data.

The Utah Pharmacy Data Plan will be implemented incrementally. The Phase I will be a pilot project that will collect and analyze the prescription claims data from voluntarily participating health plans in Utah. The data collected from the voluntary participating health plans may only cover 50% to 70% insured population in Utah. Data from all licensed pharmacies in Utah will provide an alternative source for the statewide pharmacy database. The UPDAC will assess and evaluate the feasibility to collect prescription claims data directly from all pharmacies in Utah based on Phase I successes. The data from all pharmacies in Utah may cover up to 90% of prescription drugs used by Utah residents.

The UPDAC strongly encourages public health programs, health plans, quality improvement organizations, and health service researchers to use the statewide pharmacy data for intervention when the data are available. The committee hopes that the reports derived from the proposed databases can be used for community-based patient and provider education, intervention needs assessment, and evaluation of quality improvement projects. Improvement of the health of Utahns is the ultimate goal of the Utah Pharmacy Data Plan.

# **SECTION II**

# FEASIBILITY STUDY AND EVALUATION OF AVAILABLE PHARMACY DATA SOURCES

The health data plan shall "document existing health data activities in the state to collect, organized, or make available types of data pertinent to the needs identified."

Utah Code Title 26 Chapter 33a, Utah Health Data Authority Act 26-33a-104(2)(ii)

The Utah Health Data Committee (HDC) has developed relatively advanced health care databases in the past decade compared to other states. These databases include hospital inpatient discharge records, ambulatory surgery records and emergency department (ED) encounter data. In the absence of encounter data from clinics, the information from the three databases presents an incomplete picture of the patterns of morbidity among the population of the state. Many diseases do not require hospitalization until an advanced stage of acuity. The pharmacy claims data will allow an understanding of utilization patterns of certain drugs, which in turn can be used as a surrogate measure of presence of certain illnesses that are not being captured through the hospital discharge or ED encounter data. Therefore, collection of statewide pharmacy data becomes a logical next step to expand public health surveillance to the outpatient setting. The partners of the Utah pharmacy data initiative have conducted several feasibility studies or pilot projects to explore possible strategies and pharmacy data sources to develop a statewide pharmacy database. This section describes each of these pharmacy data sources.

# A. The Health Data Committee's (HDC) Feasibility Study in 2001

Directed by the HDC, the Utah Office of Health Care Statistics (OHCS) conducted a feasibility study on collecting electronic pharmacy data directly from all licensed pharmacies in Utah in 2001. The study found that there were 485 registered pharmacies in Utah with an estimated 20 to 25 million prescription-claim records annually. The data had to be collected through electronic clearinghouses, which would cost approximately ten cents per transaction, resulting in an estimated cost of over \$2 million annually to the Utah Department of Health. Approximately 10-12% of prescription bills are paid in cash. Since no third-party payment is involved in cash transactions, electronic records for those transactions do not exist. The Utah Pharmaceutical Association also reported that the pharmacies had a narrow margin of profit and they could not afford to bear any additional financial burden in creating electronic databases or submitting data manually (HDC Staff, 2001).

Before the study group knew that the Utah Division of Occupational & Professional Licensing had established a Controlled Substance Database connecting to all licensed pharmacies in the state, the study group concluded erroneously that pharmacies' computers are not equipped with any functions other than handling the prescriptions.

Based on the information received in 2001, the committee determined that collection of claims data directly from pharmacies was not feasible. Yet pharmacy data would be a valuable addition to the Utah health care databases. The HDC instructed its staff to review the existing pilot projects, explore the possibility of collecting the pharmacy data from other sources and further justify the usefulness of pharmacy data collection for public health and health policies.

# B. The University of Utah and HealthInsight's Antibiotics Projects

The CDC-funded Intermountain Project on Antimicrobial Resistance and Therapy (IMPART) and Utah Alliance Working for Antibiotic Resistance Education (AWARE), a statewide coalition, have explored and used various pharmacy data to (a) monitor antimicrobial resistance among isolates from clinical microbiology laboratories in Utah and Idaho, (b) promote appropriate antimicrobial prescribing for acute respiratory tract infections (ARI) in the outpatient setting and (c) track improvements in communities due to interventions. The *HealthInsight* project staff has accumulated valuable expertise on advantages and disadvantages of different pharmacy data sources (See table on the Evaluation of Available Pharmacy Data Sources).

Source/Description	Advantages	Disadvantages
<u>1. Data from retail pharmacies:</u> This was feasible on a very small scale for pharmacies in our pilot communities.	Good community-wide data possible if all pharmacies participate. This level of data is important when correlating prescribing to antibiotic resistance levels or other sensitive and expensive outcomes data.	Hard to obtain data from all pharmacies. Time intensive to obtain and enter data available only in hard copy form. HIPAA regulations make this strategy even more prohibitive.
2. Retail pharmacy data through wholesalers (NDC, IMS, etc.): These data are samples from retail pharmacies that are projected to the universe of pharmacies and are used by pharmacy companies to measure their sales force.	Community wide data. Available in a variety of preprogrammed and custom electronic formats.	Very costly (even with government research discounts). Concerns over the projection methods used were uncovered when compared with other data sources. Fewer pharmacies may participate
3. Utah Medicaid data: These data have been made available for the pilot projects, the IMPART CDC grant and Utah AWARE. Antibiotic prescribing data is linked to claims data for ARIs.	Using the claims data we can tie actual use to a model of percent antibiotics appropriately used for each diagnosis group. From that we build the gap analyses and then show the percent reduction in the gap over time. These data can be tied to demographic data to examine the extent and trends in the problem in different age populations. These data will also be used to translate antibiotic reduction into dollars saved over time using dollar estimates by specific drug for precise estimates.	Medicaid had to dedicate scarce programmer resources to provide the data. There is some evidence of lack of generalization of results (see biases mention in the <u>Commercial and</u> <u>private insurers aggregate data section</u> below). The IMPART staff is working with all major health plans, both public and private, in Idaho and Utah to obtain similar claims, pharmacy and demographic data. Many health plans have limited programmer time or data systems capability and concerns about appropriate safeguards when sharing patient level data, even when identifiers are removed.

# **Evaluation of Available Pharmacy Data Sources**

Source/Description	Advantages	Disadvantages
4. Commercial and private insurers aggregate data: These data were obtained for Utah AWARE to help track the effectiveness of their publicity campaign and help insurers identify their savings (and justify their financial support of AWARE). As a QIO, <i>HealthInsight</i> acted as a neutral party to collect and aggregate these data. Data for all of the plans together as well as their own plan is sent to each health plan's medical director.	Good participation from almost all health plans in Utah. Most identified this as an important area of focus.	Some difference in how each plan extracted their data adds noise to the data. <i>HealthInsight</i> volunteered staff time to request and process the data. For some insurers this was not a priority topic. Compared to Medicaid data, the health plans data show lower levels of prescribing/1000 enrollees. This bias is likely due to the age of the clients, but client age distribution for each plan was not available to perform age adjustments.
5. Medical record review: Data abstracted from medical records in outpatient clinics in the 12 communities in the CDC IMPART study. The data for ARIs will be from a random sample of charts dating 2000 through 2003. Data will include: patient demographics, past history, current history, symptoms, exam findings, test and lab results, diagnosis and treatment. About 35 charts per primary care provider will be abstracted from clinics recruited in the 12 communities (estimate ~5000 charts total).	Prescribing is accurately tied to the diagnosis and it is possible to capture prescription medication distributed through sampling.	Extremely expensive. Studies have shown discrepancy between medication information in chart and what's actually filled. Samples often not recorded. Chart documentation varies among providers and is often quite poor. Variation in charting and billing systems require random selection method to be adapted to each clinic.
6. Palm and paper algorithm data (example of data generated by the intervention): The IMPART and pilot study used respiratory tract algorithms to lead the provider through diagnosis and treatment when patients presented with any type of ARI. Each provider was asked to complete at least 200 cases either using a paper form or the same algorithm on a PDA.	These data are case level but without patient identifiers and could be useful in measuring the weight providers give to various factors in evaluation of their patients. The Palm data are readily available in electronic format.	These self-reported data were considerably skewed in the pilot project. (At least one provider mentioned that they might have been more likely to use the algorithm with patients when they intended to comply with the recommendations.) The Palm algorithms were designed to maximize the efficiency of use and as such did not capture all of the data (e.g. when the required number of symptoms was reached it automatically forwarded so that all symptoms present were not captured). Even in using the paper version of the algorithm providers often skipped sections.

Among the above six data sources, the IMPART project reported to the HDC that the Medicaid pharmacy claims and diagnosis data are most useful data sources and suggested the expansion of the pilot project's Medicaid data collection, analysis and intervention to all private and public insurers in Utah.

C. Available National Pharmacy Database for Utah Researchers

University of Utah, Department of Pharmacy Practice and Pharmacotherapy Outcomes Research Center (UU PORC), has various national databases, e.g., data from Pharmacy Benefit Managers (PBM, Rx America, Merck Medco, WellPoint) and purchased national databases from Pharmetrics, Procare Science and MedStat. These databases contain cumulated data gathered from managed care plans around the country and include pharmacy data linked to diagnosis, physician visit and comorbidity. These databases do not include any Medicaid data, information on commercial fee-for-service clients, or no data specific to Utah.

The UU PORC also has access to Utah Medicaid pharmacy data, University of Utah Health Network electronic medical records (EMR) data and the Intermountain Health Care (IHC) Clinical Workstation data. Although these data sources cover a considerable portion of prescribed medications in Utah, they still are not sufficiently complete for a statewide estimate of prescription uses. The UU PORC has conducted pharmacotherapy outcomes studies on those data and suggested that a statewide coordinated pharmacy data collection from all major insurers would benefit all insurers and the public in Utah.

D. Utah Department of Insurance Diabetes Mandate Study

Utah Senate Bill 108 established mandatory requirements for diabetes treatment and management among managed care organizations. The Department of Insurance (DOI) conducted a study to evaluate the impact of these mandates (Utah Department of Insurance, 2003). The DOI was only able to obtain aggregated pharmacy claims data from major health insurers for the study.

E. ADHD Study Using Utah Controlled Substance Database

In 2003, the UDOH conducted a study on prescription of stimulant medication for Attention-Deficit Hyperactivity Disorder (ADHD) in 2003. Previously some critics identified Utah as "a heavy user of prescription stimulants for children." (Greg Lavine, 2003). UDOH analyzed the Utah Division of Occupational and Professional Licensing Controlled Substance Data for the calendar year 2002 for children, zero to eighteen years of age. Prescriptions for methylphenidate, amphetamine, and dextro-amphetamine were included in this study. The study found that the overall annual prescription rate was 2.96%, but the rate differed widely by gender and age group. Males were prescribed medication more often than females. Prescription of Health, 2003). Another recent national study reported that Utah had the rates of prescription claims for ADHD medication that were comparable to the national average (Cox ER, et al. 2003). However due to different data sources and methods, the results from the two studies are not comparable. After the ADHD medication study, the Utah Division of Community and

Family Health Services became interested in creating a statewide pharmacy claims database with a set of standardized indicators.

F. Pharmacy Data Focus Group Discussions

The Office of Health Care Statistics conducted three focus group discussions to solicit input from subject experts and potential stakeholders/partners for the pharmacy database project in 2003. The participants of the focus groups were health services or pharmacotherapy outcome researchers, health plan medical directors, public health and Medicaid program directors, and policy makers in the Utah Department of Health (UDOH). The participants in those group discussions supported the concept of developing a statewide pharmacy database and expressed different levels of concern about implementation.

G. Other Literature and Other States' Practice

In other states, researchers have used health insurance electronic pharmacy records for conducting syndrome surveillance (Lazarus et al. 2002) or assessing infection risk from coronary artery bypass surgery (Platt et al 2002). Overhage, Tierney, and McDonald (1995) reported their efforts to include HMO data in their implementation of the Indianapolis Network for Patient Care and Research.

The Kansas Department of Health and Environment developed the Kansas Health Insurance Information System including prescription drug data<sup>1</sup>. Similarly, the State of Maine mandates every insurance company and third party administrator that covers Maine residents is required by law to submit paid claims data for those residents. The data include such information as diagnoses, the services provided, providers, the amount paid by the plan, and the amount of out of pocket expense for the member. Medical, dental, and prescription drug data must be submitted for claims from all settings (hospitals, doctors' offices, outpatient clinics, etc.) in which a covered Maine resident has been treated. The Maine Health Care Claims Data Bank expects to receive 400-plus files a month totaling 30 million to 50 million claims a year.<sup>2</sup> Both states have used the data to evaluate insurance mandates. State public health programs have not used the data for surveillance yet.

Based on preliminary findings from the pilot projects and input from health policy makers, public health programs, health plan medical directors and researchers, the Health Data Committee has accepted the proposal for establishing a technical advisory committee and developing a Utah Pharmacy Data Plan on July 8, 2003. The Utah Pharmacy Data Advisory Committee (UPDAC) was established in October 2003. The UPDAC reviewed the above assessments of available data sources and directed the staff to collect information on following two new initiatives and one existing statewide program in Utah.

<sup>&</sup>lt;sup>1</sup> For more information on the Kansas prescription data collection go to <u>http://www.kdhe.state.ks.us/hci/</u>

<sup>&</sup>lt;sup>2</sup> For more information on the Maine prescription data collection go to <u>www.mhdpc.org</u> or <u>http://www.mhic.org/</u>

### H. New e-Prescribing System

The Utah Pharmaceutical Association introduced the representatives from a company called CarduRx to the UPDAC. CarduRx represents new efforts to use information technology to improve medication safety. CarduRx will be a real-time Internet-and-palm based system linking physicians, pharmacies, and a central pharmacy data repository. Currently CarduRx is in the beta-testing stage of its development.

### I. Utah Community Clinical Network Initiative

Recently, the Utah Health Information Network, *HealthInsight*, University of Utah Department of Medical Informatics, Utah Department of Health and other partners has jointly initiated to develop the Utah Community Clinical Network (UClin). The UClin will include a pharmacy component and intends to establish electronic link among clinics and pharmacies. The UClin began its planning effort in January 2004.

### J. Utah Controlled Substance Database

The Utah Department of Commerce Division of Occupational & Professional Licensing (DOPL) manages a Controlled Substance (CS) Database under the authority of the Utah controlled Substance Act (Utah Code §58-37) and R156-37 Utah Controlled Substances Act Rules. The CS Database Program collects all Schedule II-V prescription records from approximately 475 pharmacies in Utah. The pharmacies report the prescription records monthly, in the American Society for Automation in Pharmacy Version 2 reporting format, by modem, floppy/CD disk, encrypted e-mail, paper or FTP site transfer. The CS Database staff reply to approximately 150-175 inquiries per day from providers and pharmacies.

Healthcare provider representatives in the Health Data Committee and the UPDAC praised the CS Database Program's services to the provider community in Utah. Although the database only contains about 10% of annual total prescription drug records filled in the State of Utah, the infrastructure of the database, its communication connections with pharmacies, and program management expertise will provide a valuable basis for the Utah Department of Health to develop a statewide prescription drug database.

Having reviewed the above ten types of data sources or studies, the UPDAC concluded that no population-based prescription data is available for public uses in Utah. The need of developing a statewide pharmacy database is justifiable.

# SECTION III

# Data Uses and Reporting Designs For Public Health Surveillance And Quality Improvement

The health data plan shall "explain the intended uses of and expected benefits to be derived from the data, ... including the contemplated tabulation formats and analysis methods; the benefits described must demonstrably related to one or more of the following: promoting quality health care, managing health care costs, or improving access to health care services."

Utah Code Title 26 Chapter 33a, Utah Health Data Authority Act 26-33a-104(2)(vi)

The purpose of the Utah Pharmacy Data Initiative is to create a statewide pharmacy database and use the data for public health surveillance of outpatient morbidity, improvements of appropriate uses of prescription drugs and medication safety, and other prescription drug-related research projects. The Health Data Committee will develop standard annual reports on the state- and community-level information from this database. The annual report will track the trends and variation among communities/areas for specific indicators. The HDC will not publicly report any health-plan level information.

The Utah Pharmacy Data Advisory Committee, with the consultations from numerous experts and organizations, decided to report on ten selected prescription drug indicators and selected utilization trends in the Phase I.

# SUMMARY OF SELECTED INDICATORS

# <u>The Utah Pharmacy Data Advisory Committee has selected the following indicators</u> to be reported from the health plans' pharmacy claims database:

- 1. Asthma Asthma Medication Prescription Rates and Appropriate Asthma Medication Use
- 2. Antibiotics Effective Use of Antibiotics
- 3. Antidepressant Appropriate Use of Antidepressants for Adolescents
- 4. Depression in Pregnancy Appropriate Use of Medications for Treatment of Depression, OCD and Anxiety Disorders During Pregnancy
- 5. Diabetes Appropriate Use of Diabetes Medication
- 6. Generic Effective Use of Generic Drugs
- 7. Hypercholesterolemia Appropriate Use of Hypercholesterolemia Medication
- 8. Hypertension Appropriate Use of Hypertension Medication
- 9. Pain Management Effective Use of Pain Medications
- 10. Polypharmacy Use of Atypical Antipsychotics

# **Brief Description of Indicators**

# 1) Asthma - Asthma Medication Prescription Rates and Appropriate Asthma Medication Use:

This indicator will focus on the use of long-term asthma control medications, compliance in use of long-term control medications (using refill patterns as a proxy), and the use of quick-relief medications. Information could be used for provider education and health plan quality improvement projects. One of the Healthy People 2010 objectives is to increase the proportions of persons with asthma who receive appropriate asthma care according to national guidelines, particularly for those persons who receive medication regimes that prevent the need for more than one canister of short-acting (reliever) medication per month. A pharmacy database also can be used to estimate the prevalence of asthma, track the ratio of the two drugs as indicator of care, and develop interventions to reduce emergency department (E.D.) visits and hospitalizations. The Utah Asthma Control Program proposed this indicator.

## 2) Antibiotics – Effective Use of Antibiotics:

Antibiotic use (and overuse) is an area of public health concern due to the rise in antibiotic resistant bacteria. Diagnosis data would be helpful for this indicator but pharmacy data alone will provide valuable baseline data. Respiratory diseases and the antibiotics typically used for them would be a focus. Trend data in terms of overall antibiotic use, as well as trends within and between antibiotic classes, would be useful as markers of increases in appropriate antibiotic usage. The information will support the improvements in effective care and reduction of care cost, and lessen antibiotic resistant threat for Utahns. HealthInsight proposed this indicator.

## 3) Antidepressants – Appropriate Use of Antidepressants:

The indicator will provide information on the prevalence of antidepressant prescriptions issued to children/adolescents in Utah along with trends in prescribing patterns. The Utah Violence and Injury Prevention Program (VIPP) proposed this indicator. VIPP in conjunction with the University of Utah Department of Psychiatry has been conducting a Youth Suicide Study for a number of years and is very interested in anti-depressant use of youth. The program will use the information to obtain a baseline of antidepressant use and monitor over- or under-uses of antidepressants and educate providers.

# 4) Depression During Pregnancy - Appropriate Use of Medications for Treatment of Depression, OCD and Anxiety Disorders During Pregnancy:

The indicator will aim to provide information on the prevalence of prescriptions for antidepressants, OCD meds, and anxiolytic medications issued to pregnant women in Utah along with trends in prescribing patterns. One difficulty is that pharmacy data alone cannot determine whether a woman is pregnant. One possible solution is to use women's use of prenatal vitamins as a proxy. Tracking depression in pregnancy will enable the program to compare the estimated number of women reporting depression with those receiving appropriate treatment. This will provide a baseline from which to educate providers and the public to appropriate use of depression medication during pregnancy. The Utah Reproductive Health Program proposed this indicator.

## 5) Diabetes - Appropriate Use of Diabetes Medication:

The treatment of diabetes indicator would help to improve quality of care for those with type 1 and type 2 diabetes by identifying patients who tend to be non-compliant and helping identify areas for quality improvement. The Utah Diabetes Control Program proposed this indicator.

# 6) Generic - Effective Use of Generic Drugs:

Use of generic drugs, and the potential accompanying cost savings, is the focus of this indicator. Prescriptions for targeted therapy classes will be tracked and split into brand

name and generics. An estimate of potential cost savings can be calculated based on price differential between brand name and generic. The UPDAC health plan representatives proposed this indicator.

## 7) Hypercholesterolemia - Appropriate Use of Hypercholesterolemia Medication:

Understanding a given disease and under-treatment of it presupposes knowing the percentage of the population with this disease. While diagnosis is not available in the pharmacy data, there are existing data on prevalence for hyper-cholesterolemia. Monitoring drug therapy and using data to impact systems of care to improve therapies can result in increasing provider awareness of practice for this condition, a greater focus of attention on treatment of these conditions, influence on provider practice, improved control of hyper-cholesterolemia, prevention of complications of congestive heart failure and acute myocardial infarction, ultimately impacting quality of life and decreasing premature mortality and morbidity. The Utah Heart Disease and Stroke Prevention Program proposed this indicator.

## 8) Hypertension - Appropriate Use of Hypertension Medication:

While diagnosis of hypertension is also not available in the pharmacy data, there are existing data on prevalence for this common condition. Monitoring drug therapy and using data to impact systems of care to improve therapies can result in increasing provider awareness of practice for these conditions, influence focus of attention on treatment of these conditions, influence provider practice, result in improved control of hypertension, prevent complications of congestive heart failure and acute myocardial infarction, ultimately impacting quality of life and decreasing premature mortality and morbidity. The Utah Heart Disease and Stroke Prevention Program proposed this indicator.

# 9) Pain Management - Effective Use of Pain Medications:

The aim of this indicator would be to generate information that can help reduce misuse and cost and identify variation in treatment modality. The information on this indicator can be used for public and provider education. The Utah Medicaid Program proposed this indicator.

# 10) Polypharmacy - Use of Atypical Antipsychotics

The goal of this indicator is to improve quality of care and patient safety, reduce overuse and cost, and reduce drug-drug interactions. The most commonly prescribed combinations of contraindicated drugs can be identified and analyzed (in addition to known combinations with drug-drug interactions). The information on this indicator can be used for public and provider education. The Utah Medicaid Program proposed this indicator. B. TABLE TEMPLATES FOR REPORTING INDICATORS

# **1.** Asthma Medication Prescription Rates and Appropriate Asthma Medication Use

#### Description of the Indicator:

This indicator will focus on the use of long-term asthma control medications, compliance in use of long-term control medications (using refill patterns as a proxy), and the use of quick-relief medications. One of the Healthy People 2010 objectives is to increase the proportions of persons with asthma who receive appropriate asthma care according to national guidelines, particularly those persons who receive medication regimes that prevent the need for more than one canister of short-acting (reliever) medication per month.

#### Uses of the Information:

The Utah Asthma Control Program proposed this indicator. The program has facilitated and partnered with the Utah Asthma Task Force to develop a statewide strategic plan to address asthma in Utah. The asthma medication information and report will be presented to the Task Force. The information can be used for health plan quality improvement projects and provider education; for primary and preventive care providers to track the ratio of the two drugs as indicator of care, and develop interventions to reduce emergency department (ED) visits and hospitalizations, and for state and local public health programs to estimate the prevalence and severity of asthma in the population and monitor the trends.

For more information on asthma intervention in Utah, please contact

Utah Asthma Program. http://health.utah.gov/asthma

Utah Asthma Task Force Membership: http://health.utah.gov/asthma/partners.htm

Utah's Asthma Plan http://health.utah.gov/asthma/asthmaplanweb.pdf

# 1. Asthma (continued)

## TABLE 1a. Use of long-term-control medications for asthma patients

### Prescription drug classes included in this table are:

Inhaled corticosteroids Cromolyn sodium and nedocromil (Class B) Methylxanthines (Class C) Leukotriene modifiers (Class D) Long acting beta2-agonists (Class E)

New prescriptions will be included when they are available (e.g. Zolair)

	# of Patients	# of Patients	# of Patients	# of Patients	Total #	Asthma therapy	Comparable
	on corticosteroids	on corticosteroids	on Classes	on Class E	of	prevalence	Norm
		and	B-D only	only	Patients	per 1,000 Patients	
		Classes B-E					
Age							
0-4							
5-9							
10-17							
18-34							
35-64							
65+							
Gender							
Male							
Female							
Geographic Area							
Urban							
Rural							

# **1.** Asthma Medication (continued)

### TABLE 1b. Compliance of use of asthma medication

### For each of the patient types below, the percentage is equal to:

Number of patients who received appropriate number of prescriptions over 12-month period

## divided by

Number of patients receiving any long-term-control prescriptions over 12-month period (figure from Table 1a)

	Compliance % of	Compliance % of		Compliance % of	Total Compliance %	Comparable
	Patients	Patients on	Patients on Classes B-D		of Patients	Norm
	on corticosteroids	corticosteroids and	only	on Class E only		
		Classes B-E				
Age						
0-4						
5-9						
10-17						
18-34						
35-64						
65+						
Gender						
Male						
Female						
Geographic Area						
Urban						
Rural						

# TABLE 1c. Use of rescue/quick-relief medications among asthma patients

#### Prescription drugs classes included in this table are:

Short acting beta2-agonists

Anticholinergics

Systemic corticosteroids

New prescriptions will be included when they are available.

## For each of the patient types below, the rate is equal to:

Number of quick-relief medication prescriptions received by all patients over 12-month period

#### divided by

Number of patients receiving any long-term-control prescriptions over 12-month period (figure from Table 1a)

## This yields the average number of quick-relief meds per patient per year for each patient type.

	Rate for Patients	Rate for Patients on corticosteroids	Rate for Patients	Rate for Patients on	Rate for All	Comparable
	on corticosteroids	and Classes B-E	on Classes B-D only	Class E only	Patients	Norm
Age						
0-4						
5-9						
10-17						
18-34						
35-64						
65+						
Gender						
Male						
Female						
Geographic Area						
Urban						
Rural						

# 2. Antibiotics – Effective Use of Antibiotics

### Description of the Indicator:

Antibiotic use (and overuse) is an area of public health concern due to the rise in antibiotic resistant bacteria. Diagnosis data would be helpful for this indicator but pharmacy data alone will provide valuable baseline data. Respiratory diseases and the antibiotics typically used for them would be a focus. Trend data in terms of overall antibiotic use, as well as trends within and between antibiotic classes, would be useful as a marker of increases in appropriate antibiotic usage.

#### Uses of the Information:

*HealthInsight* proposed this indicator. *HealthInsight* is a partner of the Intermountain Project on Antimicrobial Resistance and Therapy (IMPART) and the Utah Alliance Working for Antibiotic Resistance Education (AWARE). The IMPART and AWARE, a statewide coalition, have explored and used various pharmacy data to (a) monitor antimicrobial resistance among isolates from clinical microbiology laboratories in rural Utah and Idaho, (b) promote appropriate antimicrobial prescribing for acute respiratory tract infections (ARI) in the rural outpatient setting, and (c) track improvements in communities due to interventions. The proposed indicator will provide statewide information for the AWARE coalition to support their improvement efforts in effective care, reduction of care cost and lessen antibiotic resistant threat for Utahans.

The Utah Alliance Working for Antibiotic Resistance Education (AWARE) Web Site: <u>http://utahaware.com/</u>

### **TABLE 2.** Effective use of antibiotics

### Prescription drug classes included in this table are:

penicillin, amoxicillin	augmentin (all combinations)
other penicillins	first generation cephalosporins
second generation cephalosporins	third generation cephalosporins
fourth generation cephalosporins	older macrolides (e.g. erythromycin variations)
newer macrolides (e.g. azithromycin, clarithromycin	older quinolones (e.g. ciprofloxin, ofloxacin, norfloxacin)
Lincosamides, other	newer quinolones (e.g. levofloxacin, gatifloxacin, moxifloxacin)

New prescriptions will be included when they are available.

**Ratios of narrow-spectrum to broad-spectrum antibiotics**: various ratios within and across classes are possible (see IMPART analysis when it's complete for suggestions as they'll compare measures, with and without diagnosis data, to identify useful market ratios.)

	# of Class B Prescriptions	# of Class A Prescriptions	# of Class C Prescriptions	Etc.	To be determined "appropriate" ratio	Total # of Prescriptions	Antibiotic therapy prevalence per 1,000 Patients	Comparable Norm (to be determined goal of ratio between certain
Age								columns)
0-12 months								
1-5								
6-18								
19-64								
65+								
Gender								
Male								
Female								
Geographic								
Area								
Urban								
Rural								

# 3. Antidepressants – Appropriate Use of Antidepressants for Adolescents

## Why it is important?

Depression among adolescents and its treatment is an area of medicine that has received increasing attention of late. A January 2003 article in *Archives of Pediatrics and Adolescent Medicine* reported that the number of psychotropic medication prescribed to children and adolescents more than doubled from 1987 to 1996 (Zito et al. 2003). Of the 900,000 youths examined, antidepressants ranked second in terms of type of psychotropic medication prescribed. The authors concluded that "Youth psychotropic treatment utilization during the 1990s nearly reached adult utilization rates". This pattern holds true even for younger children; the number of two to four year olds on psychiatric medication increased 50% between 1991 and 1995 (Zito et al. 2000). In addition, this study found that "decreases occurred in the relative proportions of previously dominant psychotherapeutic agents in the stimulant and antidepressant classes, while increases occurred for newer, less established agents".

Antidepressant use is of particular interest in Utah as a study released by Express Scripts reported that Utah had the highest rate of antidepressant use in the U.S., even after adjustment for age and gender (Motheral 2001). Sixteen percent of the Utah population was reported to be receiving antidepressant medication.

Many antidepressants that have undergone rigorous clinical trials for adults have not been studied as thoroughly in children. As such, most antidepressants for children are prescribed "off-label" – while the medication has received FDA approval for treatment of a specific disease in adults, it has not received official approval for treatment of the same disease in children. In June 2001 the FDA announced that Paxil® should not be prescribed for children under 18 years of age due to an increased risk of suicide/self-harm. In August of 2003, drug manufacturers wrote in a letter to doctors that Effexor® should not be prescribed for children for the same reason.

#### Definition of the Indicator:

This indicator will examine antidepressant prescriptions dispensed for different age groups. The denominators for the utilization rates are the aggregated membership information reported by participating health plans. The analysis will emphasize on children/adolescents' uses in comparison with the adult utilization patterns and inappropriate uses (e.g. Paxil® or Effexor® prescribed for children under 18 years of age). The indicator will provide information on the prevalence of antidepressant prescriptions issued to children/adolescents in Utah along with trends in prescribing patterns.

#### <u>Uses of the Report</u>:

The Utah Violence and Injury Prevention Program (VIPP) and Adolescent and School Health Program (CASH) proposed this indicator. VIPP in conjunction with the University of Utah Department of Psychiatry has been conducting a Youth Suicide Study for a number of years and is very interested in anti-depressant use of youth. The program will use the information to obtain a baseline of antidepressant use and monitor over- or under-uses of antidepressants and educate providers. If Utah was found to have an unusually high utilization rate or misuse rates of antidepressant medications among adolescents, the public programs will use this information in dialogues with community organizations (e.g. the Utah Pediatric Partnership to Improve Healthcare Quality) to determine the type and extent of needed intervention to address the use of the medication and the mental health problems among the adolescent population that necessitated the prescriptions.

#### Program Information Web Site:

Child, Adolescent and School Health Program (CASH) Web Site: http://www.health.utah.gov/cash/

The Utah Violence and Injury Prevention Program Web Site: <u>http://health.utah.gov/cfhs/he/vipp/</u>

# 3. Antidepressants (continued)

## **Table 3a:** Distribution of uses of antidepressants in patients under age 18, Utah: 2002

#### Prescription drugs included in this table are:

amitriptyline (Elavil ®)	nefazodone (Serzone ®)
buproprion (Wellbutrin ®)	paroxetine (Paxil ®)
citalopram (Celexa ®)	sertraline (Zoloft ®)
fluoxetine (Prozac ®)	trazodone (Desyrel ®)
fluvoxamine (Luvox ®)	venflafaxine (Effexor ®)
mirtazapine (Remeron ®)	

New prescriptions will be included when they are available.

		Utilization Rate	Comparable
	No. of Prescriptions	Per 1,000	Norm
Age			
0-12			
13-17			
18-24			
25-44			
45-64			
65+			
Gender			
Male			
Female			
Diagnosis			
Have the targeted disease			
Don't have targeted disease			
Geographic Area			
Urban			
Rural			

## 3. Antidepressants (continued)

## Table 3b: Distribution of uses of antidepressants in patients under age 18, Utah: 2002

Prescription drugs included in this table are:

paroxetine (Paxil ®) venflafaxine (Effexor ®)

New prescriptions will be included when they are available.

		Utilization Rate	Comparable
	No. of Prescriptions	Per 1,000	Norm
Age			
0-4			
5-9			
10-12			
13-15			
16-17			
18+			
Gender			
Male			
Female			
Diagnosis			
Have the targeted disease			
Don't have targeted disease			
Geographic Area			
Urban			
Rural			

# 4. Depression During Pregnancy – Appropriate Use of Medications for Treatment of Depression, OCD and Anxiety Disorders During Pregnancy

## Description of the Indicator:

The indicator will aim to provide information on the prevalence of prescriptions for antidepressants, OCD medications, and anxiolytic medications issued to pregnant women in Utah along with trends in prescribing patterns. One difficulty is that pharmacy data alone cannot determine whether a woman is pregnant. One possible solution is to use women's use of prenatal vitamins as a proxy. Tracking depression in pregnancy will enable the program to compare the estimated number of women reporting depression via the Pregnancy Risk Assessment Monitoring Survey (PRAMS) with those receiving appropriate treatment.

Patients included in this indicator are females that received at least one prescription for prenatal vitamins. There are obviously limitations in using this approach. According to a March of Dimes survey, 31% of non-pregnant women nationwide reported taking prenatal vitamins in 2002. Also, not all pregnant women are likely to take prenatal vitamins. This figure, along with number of live births per year in Utah, will be used to adjust the denominator in lieu of pharmacy data that can be linked to discharge data.

#### Uses of the Information:

The Utah Reproductive Health Program proposed this indicator. Their PRAMS study showed that 24% of Utah women who had a live birth in 2000 reported being moderately or very depressed in the postpartum period. This new indicator will expand depression monitoring to pregnant women. Data will be analyzed and reported in aggregate form and will not be published by individual health plan. The first-year data will provide a baseline for the program to assess potential problems of depression among pregnant women in Utah. The intent is to track trends over time and to identify geographic areas of the state that appear to have pockets of need in order to target public and provider educational interventions to appropriate use of depression medication for pregnant women.

The Reproductive Health Program conducts educational intervention through Internet and mailings. The educational intervention-information developed from the Depression in Pregnancy Indicator analysis can be published in the program's pregnancy educational materials and mailed to more than 700 obstetricians, family practitioners, and certified nurse midwives in Utah, and posted on

The Utah Reproductive Health Program web site: <u>http://www.health.utah.gov/rhp/</u>

Pregnancy Education home page: <u>http://www.health.utah.gov/rhp/pregnancy/preged/index.htm</u>

## 4. Depression During Pregnancy (continued)

TABLE 4. Use of medications for treatment of depression, OCD and anxiety disorders during pregnancy

#### Prescription drug classes included in this table are:

SRIs (Class A)
TCAs (Class B)
MAO inhibitors (Class C)
Newer antidepressants (buproprion (Wellbutrin®), nefazodone (Serzone®), trazodone (Desyrel®), venlafaxine (Effexor®), and mirtazapine (Remeron®) (Class D)
Benzodiazepines (Class E)

New prescriptions will be included when they are available.

			# of Class C	# of Class D	# of Class E		Treatment Prevalence	Comparable
	Patients	Patients	Patients	Patients	Patients	Patients	per 1,000 Patients	Norm
Age								
10-18								
18-34								
35-44								
45-54								
Gender								
Female								
Geographic Area								
Urban								
Rural								

## 5. Diabetes - Appropriate Use of Diabetes Medication

#### Description of the Indicator:

The treatment of diabetes indicator would provide information on the types of medications being prescribed and filled by people with diabetes. New medications become available frequently and this will assist us in tracking adoption of these medications.

#### Uses of the Information:

The Utah Diabetes Prevention and Control Program proposed this indicator. The Program recently completed the Diabetes Practice Recommendations, including algorithms for treatment of Utahns with Type 1 and Type 2 diabetes. These data can be used to determine whether recommended medication use changes over time as the Practice Recommendations become accepted and used. The Program will then be able to determine whether more training on the Practice Recommendation is needed, or will consider additional research into medication management barriers. If diagnosis data become available, the Program would also like to track co-morbidity medication use.

The Utah Diabetes Prevention and Control Program web site: www.health.utah.gov/diabetes

## **5.** Diabetes (continued)

## **TABLE 5a.** Use of medications for control of diabetes

#### Prescription drug classes included in this table are:

Insulins (Class A) Sulfonylureas (Class B) Biguanides (metformin) (Class C) Other agents (including alpha-glucosidase inhibitors, meglitinides, thiazolidinediones, and combination agents) (Class D)

New prescriptions will be included when they are available.)

	# of Class A Patients	# of Class B Patients	# of Class C Patients	# of Class D Patients	Total # of Patients	Diabetes therapy prevalence per 1,000 Patients	Comparable Norm
Age							
0-18							
18-34							
34-45							
45-54							
55-64							
65-84							
85+							
Gender							
Male							
Female							
Geographic Area							
Urban							
Rural							

## **5.** Diabetes (continued)

## TABLE 5b. Compliance of diabetes medication use

## For each of the patient types below, the percentage is equal to:

Number of patients who received appropriate number of prescriptions over 12 month period

#### divided by

	Compliance %	Compliance %	Compliance % of	Compliance %	Total Compliance %	Comparable
	of Class A	of Class B	Class C	of Class D	of Patients	Norm
	Patients	Patients	Patients	Patients		
Age						
0-18						
18-34						
34-45						
45-54						
55-64						
65-84						
85+						
Gender						
Male						
Female						
Geographic Area						
Urban						
Rural						

Number of patients receiving any prescriptions over 12 month period (figure from Table 1a)

## 6. Generic - Effective Use of Generic Drugs:

#### Description of Indicator:

Use of generic drugs and the potential accompanying cost savings are the focuses of this indicator. Prescriptions for targeted therapy classes will be tracked and split into brand name and generics. An estimate of potential cost savings can be calculated based on price differential between brand name and generic.

#### Uses of the Information:

The UPDAC health plan representatives proposed this indicator. Potential cost savings that can be had through use of generic drugs are well documented. However, utilization of generic drugs where they are available remains inconsistent and sporadic among patients, providers, and geographic areas.

The percentage of generic drug type prescribed for a number of selected medications will be determined, along with the cost difference between brand name and generic drug and the potential statewide cost savings possible by switching to generics. Learning about trends - at the statewide level, by geographic area, and by patient age - will identify attractive targets for intervention and education by health plans, Utah Medicaid and Children's Health Insurance Programs.

For more information go to FDA Consumer Education Web Page:

What You Should Know About Buying and Using Drug Products <u>http://www.fda.gov/cder/consumerinfo/DPAdefault.htm</u>

## **6.** Generic Drugs (continued)

## **TABLE 6a.** Use of generic drugs (by specific drug)

Brand Drug Name/Generic Name	Brand Drug (# of doses prescribed)	Generic Drug (# of doses prescribed)	% of Generic Drug use	Cost difference per dose between Generic and Brand Drug	Potential statewide cost savings
Aldactone®/ spironolactone					
Axid®/ nizatidine					
Betapace®/ sotalol					
Birth Control/ TBD					
Buspar®/ buspirone					
Cardizem®/ diltiazem					
Claritin®/ loratadine					
Cylert®/ pemoline					
Ditropan®/ oxybutynin					
Eldepryl®/ selegiline					
Glucophage®/ metformin					
K DUR/ potassium chloride, Slow K, Klor-Con M					
Klonopin®/ clonazepam					
Mycelex®/ clotrimazole					
Prilosec®/ omeprazole					
Prinivil®/ lisinopril					
Procardia®/ nifedipine					
Pronestyl®/ procainamide					
Prozac® (Sarafem)/ fluoxetine					
Remeron®/ mirtazapine					
Ritalin® (& long acting)/ methylphenidate, Metadate, Methylin					
Soma®/ carisoprodol					
Tranxene®/ clorazepate					
Ultram®/ tramadol					
Vasotec®/ enalapril					
Wellbutrin® / bupropion					
Zestril®/ lisinopril					

Note: This is an example of the table. More drugs will be included. This table is for statewide public reporting. The information can be reported by geographic area. If participating health plans are interested, the Office of Health Care Statistics can produce internal reports for each plan.

## **TABLE 6b.** Use of generic drugs (Aggregate)

	Total # of Brand Drug Doses	Total # of Generic Drug Doses	% of Generic Drug Use	Potential Statewide Cost Savings
Age				
Age 0-18				
19-34				
35-64				
65+				
Gender				
Male				
Female				
Geographic Area				
Urban				
Rural				

## 7. Hypercholesterolemia - Appropriate Use of Hypercholesterolemia Medication:

#### Description of the Indicator:

Understanding a given disease and under-treatment of it presupposes knowing the percentage of the population with this disease. While diagnosis is not available in the pharmacy data, there are existing data on prevalence for hyper-cholesterolemia.

#### Use of the Information:

The Utah Heart Disease and Stroke Prevention Program proposed this indicator. To determine the drugs most frequently prescribed for these conditions may indicate what kinds of professional education might be needed to enhance or update provider knowledge. The intervention programs can use the trend data to note whether providers are following the most current recommendations and in the case of available antihypertensive drugs, less expensive drug therapies. Monitoring drug therapy and using data to impact systems of care to improve therapies can result in increasing provider awareness of practice for this condition, a greater focus of attention on treatment of these conditions, influence provider practice, result in improved control of hyper-cholesterolemia, prevention of complications of congestive heart failure and acute myocardial infarction, ultimately impacting quality of life and decreasing premature mortality and morbidity.

The Utah Heart Disease and Stroke Prevention Program web site: <u>http://www.hearthighway.org/</u>

## 7. Hypercholesterolemia (continued)

## TABLE 7a. Use of medications for control of hypercholesterolemia

#### Prescription drug classes included in this table are:

Statins (Class A) Bile acid resins (Class B) Fibric acid derivatives (Class C) Antilipemic agents (Niacin) (Class D) Cholesterol absorption inhibitors (Class E)

New prescriptions will be included when they are available.

			# of Class C		# of Class E	Total # of	Hypercholesterolemia	Comparable
	Patients	Patients	Patients	Patients	Patients	Patients	therapy prevalence per 1,000 Patients	Norm
Age								
0-18								
18-34								
34-45								
45-54								
55-64								
65-84								
85+								
Gender								
Male								
Female								
Geographic Area								
Urban								
Rural								

## TABLE 7b. Compliance of hypercholesterolemia medication use

## For each of the patient types below, the percentage is equal to:

Number of patients who received appropriate number of prescriptions over 12 month period

#### **Divided by**

	Compliance %	Total Compliance %	Comparable				
	of Class A	of Class B	of Class C	of Class D	of Class E	of Patients	Norm
	Patients	Patients	Patients	Patients	Patients		
Age							
0-18							
18-34							
34-45							
45-54							
55-64							
65-84							
85+							
Gender							
Male							
Female							
Geographic Area							
Urban							
Rural							

Number of patients receiving any prescriptions over 12 month period (figure from Table 1a)

## 8. Hypertension - Appropriate Use of Hypertension Medication:

#### Description of Indicator:

While diagnosis of hypertension is also not available in the pharmacy data, there are existing data on prevalence for this common condition.

#### Use of the Information:

The Utah Heart Disease and Stroke Prevention Program proposed this indicator. To determine the drugs most frequently prescribed for these conditions may indicate what kinds of professional education might be needed to enhance or update provider knowledge. The intervention programs can use the trend data to note whether providers are following the most current recommendations and in the case of available antihypertensive drugs, less expensive drug therapies. Monitoring drug therapy and using data to impact systems of care to improve therapies can result in increasing provider awareness of practice for these conditions, influence focus of attention on treatment of these conditions, influence provider practice, result in improved control of hypertension, prevention of complications of congestive heart failure and acute myocardial infarction, ultimately impacting quality of life and decreasing premature mortality and morbidity.

The Utah Heart Disease and Stroke Prevention Program web site: <u>http://www.hearthighway.org/</u>

## **8.** Hypertension (continued)

## TABLE 8a. Use of medications for control of hypertension

#### Prescription drug classes included in this table are:

Diuretics (thiazide, loop, and potassium, sparing) (Class A) Beta blockers (Class B) Calcium-channel blockers (Class C) ACE-inhibitors (Class D) Other agents (including aldosterone receptor blockers, combined alpha and beta blockers, angiotensin II antagonists, alpha<sub>1</sub>

blockers, central alpha<sub>2</sub> agonists, and direct vasodilators) (Class E)

New prescriptions will be included when they are available.)

	# of Class A							Hypertension therapy	
	Patients	Patients	Patients	Patients	Patients	Patients not on diuretics	Patients	prevalence per 1,000 Patients	Norm
						diuretics		per 1,000 Patients	
Age									
Age 0-18									
18-34									
34-45									
45-54									
55-64									
65-84									
85+									
Gender									
Male									
Female									
Geographic Area									
Urban									
Rural									

## TABLE 8b. Compliance of hypertension medication use

## For each of the patient types below, the percentage is equal to:

Number of patients who received appropriate number of prescriptions over 12 month period

#### **Divided by**

Number of patients receiving any prescriptions over 12 month period (figure from Table 1a)

	Compliance % of Class	Total	Comparable					
	of Class A	of Class B	of Class C	of Class D	of Class E	B-E	Compliance % of	Norm
	Patients	Patients	Patients	Patients	Patients	Patients not on diuretics	Patients	
Age								
0-18								
18-34								
34-45								
45-54								
55-64								
65-84								
85+								
Gender								
Male								
Female								
<b>Geographic Area</b>								
Urban								
Rural								

## 9. Pain Management - Effective Use of Pain Medications:

#### Description of Indicator:

While pain medications provide much needed relief for many patients, there is also the potential for misuse with these drugs. This indicator will examine prescribing of selected pain medications by age group, gender, and geographic area.

#### Uses of the Information:

The Utah Medicaid Program proposed this indicator. This information will be used to identify variations in treatment modality, opportunities for cost savings, and ways to reduce misuse. The information on this indicator can be used for public and provider education.

For more information on pain management, please go to

The American Geriatrics Society Foundation for Health in Aging, Public Education Web Site – Management of Persistent Pain: <u>http://www.healthinaging.org/public\_education/pain/</u>

The Ohio State University Medical Center Patient Education Web Site – Pain and Symptom Management: <u>http://devweb3.vip.ohio-state.edu/</u>

## **9.** Pain Management (continued)

## **TABLE 9.** Use of pain control medications

#### Prescription drug classes included in this table are

Fast acting/short half-life medications (including codeine, hydrocodone, propoxyphene) (Class A) Major narcotics (including morphine, fentanyl, methadone, oxycodone, meperidne, OxyContin®, fentanyl skin patches) (Class B)

New prescriptions will be included when they are available.

	# of Class A Patients	Total # of Class A prescriptions	# of Class B Patients	Total # of Class B prescriptions	Total # of Patients	Pain med therapy prevalence per 1,000 Patients	Comparable Norm
Age							
0-18							
18-34							
34-45							
45-54							
55-64							
65-84							
85+							
Gender							
Male							
Female							
Geographic Area							
Urban							
Rural							

## **10.** Polypharmacy - Use of Atypical Antipsychotics

#### Description of Indicator:

The first atypical antipsychotic, Clozaril, was introduced in 1989. Subsequent atypical antipsychotics include Rispderal, introduced in 1994, and Zyprexa, introduced in 1996. These newer drugs were termed atypicals as they were not associated with many of the side effects associated with the earlier antipsychotics.

While costly, these newer antipsychotics were rapidly adopted by prescribers. From 1995 to 1998 total Medicaid prescriptions for antipsychotics increased 20%, from 9.2 million prescriptions to 11 million prescriptions. Over the same period expenditures increased 160%, from \$484 million to \$1.3 billion. Atypical antipsychotics accounted for 51% of prescriptions and 89% of spending on antipsychotics in Medicaid in 1998 (the Lewin Group, 2000). In 2002 antipsychotics accounted for \$6.4 billion dollars of sales nationally (making them the fourth highest selling class of drugs) (Goode, 2003).

This indicator will seek to quantify trends in prescribing patterns for atypical antipsychotics and the costs associated with these drugs.

#### Uses of the Information:

The goal of this indicator is to improve quality of care and patient safety, reduce overuse and cost, and reduce drug-drug interactions. The most commonly prescribed combinations of contraindicated drugs can be identified and analyzed (in addition to known combinations with drug-drug interactions). The Utah Medicaid Program proposed this indicator. The information on this indicator can be used for public and provider education.

For more information go to FDA Consumer Education Web Page:

What You Should Know About Buying and Using Drug Products http://www.fda.gov/cder/consumerinfo/DPAdefault.htm

## TABLE 10. Use and cost of antipsychotic medications

## Prescription drugs included in this table are:

Atypical antipsychotics: clozapine (Clozaril), olanzapine (Zyprexa), quetiapine (Seroquel), risperidone (Risperdal), ziprasidone (Geodon))

Typical antipsychotics: haloperidol (Haldol), chlorpromazine (Thorazine), fluphenazine (Prolixin)

New prescriptions will be included when they are available.

	# of Patients on Atypicals	Atypical	Total Cost of Atypical prescriptions	Patients on	Total # of Typical prescriptions	Total Cost of Typical prescriptions	Antipsychotic therapy prevalence per 1,000 Patients	Comparable Norm(s)
							(Atypical/Typical/Total)	
Age								
0-18								
18-34								
34-45								
45-54								
55-64								
65-84								
85+								
Gender								
Male								
Female								
Geographic Area								
Urban								
Rural								

# C. Table Templates for Reporting Utilization Trends

## TABLE 11. Number of prescriptions for insured patients\* by high frequency therapy class and patient characteristics: Utah, 2003

Drug Therapy Class/ Patient Characteristics	Total	Estrogens	Antidiabetics	Cardiovascular	Diuretics	Antihyperlipidemics	Antiasthmatics	Antidepressants	AnalgesicsAnti- Inflammatories	ADHD Drug Therapy
Total										
Age										
0-14										
15-44										
45-64										
65+										
Gender										
Female										
Male										
Local Health District										
Bear River										
Central Utah										
Davis County										
Salt Lake Valley										
Southeastern Utah										
Southwest Utah										
Summit County										
Tooele County										
Utah County										
Uintah Basin										
Wasatch County										
Weber-Morgan										

\* Insured patients included in this report were members of [voluntarily participating health plans].

## TABLE 12. Annual prevalence per 1,000 insured patients\* by high frequency therapy class and patient characteristics: Utah, 2003

Drug Therapy Class/ Patient Characteristics	Total	Estrogens	Antidiabetics	Cardiovascular	Diuretics	Antihyperlipidemics	Antiasthmatics	Antidepressants	Analgesics Anti- Inflammatories	ADHD Drug Therapy
Total										
Age										
0-14										
15-44										
45-64										
65+										
Gender										
Female										
Male										
Local Health District										
Bear River										
Central Utah										
Davis County										
Salt Lake Valley										
Southeastern Utah										
Southwest Utah										
Summit County										
Tooele County										
Utah County										
Uintah Basin										
Wasatch County										
Weber-Morgan										

\*Insured patients included in this report were members of [voluntarily participating health plans].

## TABLE 13. Utilization of common drugs for the top 25 therapy classes: Utah\*, 2003

Rank Therapy Class	No. of Prescriptions	Utah Rx PMPY	U.S.** Rxs PMPY	Utah Prevalence	U.S. ** Prevalence
1 Antihypertensives					
2 Antidepressants					
3 Antipyerlipidemics					
4 Gastrointestinals					
5 Narcotic Analgesics					
6 Antidiabetics					
7 Estrogens					
8 Beta Blockers					
9 Oral Contraceptives					
10 Anti-Rheum (NSAIDs)					
11 Diuretics					
12 Antiasthmatics					
13 Thyroid					
14 Antihistamines					
15Cough/cold					
16 Calcium Blockers					
17 Dermatologicals					
18 Penicillins					
19 Antianxiety Agents					
20 Mocrolides					
21 Anticonvulsants					
22 Misc. Endocrine					
23 Decongestants					
24 Ophthalmic Products					
25 Cephalosporins					
Top 25					
Other					
Total * Insured patients included in this					

\* Insured patients included in this report were members of [voluntarily participating health plans].

\*\* The U.S. norms in this report are derived from the Express Scripts' Drug Trend, 2002 Report. www.express-script.com

## TABLE 14. Brand/generic mix for top 25 therapy classes: Utah\*, 2003

Rank	Therapy Class	No. of Generic Rx	No. of Brand Rx	Utah Brand/Generic Mix Index	U.S.** Brand/Generic Mix Index
1	Antianxiety Agents				
2	Antidiabetics				
3	Penicillins				
4	Narcotic Analgesics				
5	Oral Contraceptives				
6	Antidepressants				
7	Cephalosporins				
8	Antihypertensives				
9	Diuretics				
10	Anti-Rheum (NSAIDs)				
11	Calcium Blockers				
12	Cough/Cold				
13	Dermatologicals				
14	Gastrointestinals				
15	Thyroid				
16	Ophthalmic Products				
17	Anticonvulsants				
18	Antihyperlipidemics				
19	Antiasthmatics				
20	Antihistamines				
21	Estrogens				
22	Decongestants				
23	Macrolides				
24	Misc. Endocrine				
25	Beta Blockers				
	Тор 25				
	Other				
	Total				

\* Insured patients included in this report were members of [voluntarily participating health plans].

\*\* The U.S. norms in this report are derived from the Express Scripts' Drug Trend, 2002 Report. www.express-script.com

## **TABLE 15.** Top new drugs used in Utah\*, 2003

Rank	Drug Name	Route**	FDA Approval Date	Primary Indication	No. of Prescription
1	CLARINEX	PO	8-Feb-02	Allergic Rhinitis	
2	BEXTRA	PO	16-Nov-01	Arthritis	
3	LEXAPRO	PO	14-Aug-02	Depression	
4	ELIDEL	TP	13-Dec-01	Atopic Dermatitis	
5	NAULASTA	SQ	31-Jan-02	Leukopenia	
6	ORTHO EVRA	TD	20-Nov-01	Contraception	
7	ADVICOR	PO	17-Dec-01	Elevated Cholesterol	
8	BENICAR	PO	25-Apr-02	Hypertension	
g	ZELNORM	PO	24-Jul-02	Irritable Bowel Syndrome	
10	FROVA	PO	8-Nov-01	Migraine Headache	
11	TRI-LUMA	TD	18-Jan-02	Skin Discoloration	
12	ZETIA	PO	25-Oct-02	Elevated Cholesterol	
13	SUBUTEX	SL	8-Nov-02	Opioid Dependence	
14	VFEND	PO	24-May-02	Fungal Infection	
15	FOCALIN	PO	13-Nov-01	Attention-Deficit Hyperactivity Disorder	
16	AVANDAMET	PO	10-Oct-02	Diabetes	
17	NUVARING	VG	3-Oct-01	Contraception	
18	ABILIFY	PO	15-Nov-02	Psychosis	
19	NOVOLOG MIX 70/30	SQ	1-Nov-01	Diabetes	
20	FASLODEX	IM	25-Apr-02	Breast Cancer	
	Top 20 New Drugs				
	All New Drugs				
	All Drugs				

\* Insured patients included in this report were members of [voluntarily participating health plans].

\*\* PO = by mouth

TP = topical

SQ = subcutaneous

TD = transdermal

SL = sublingual (under the tongue)

VG = vaginal (this is for a contraceptive device)

IM = intramuscular

# **SECTION IV**

# **IMPLEMENTATION**

The health data plan shall "describe the expected processes for interpretation and analysis of the data flowing to the committee; noting specifically the types of expertise and participation to be sought in those processes."

> Utah Code Title 26 Chapter 33a, Utah Health Data Authority Act 26-33a-104(2)(vii)

## **A. Implementation Stages**

The Utah Pharmacy Data Plan will be implemented in two phases. In the first phase, data will be collected from voluntarily participating health plans. Utah Department of Health (UDOH) will develop a statewide pharmacy database based on available data and test a set of computer programs designed to report the indicators of prescription drug uses. Potential values of the pharmacy data can be demonstrated through releasing the designed indicator and utilization reports. The community collaboration, represented by the Utah Pharmacy Data Advisory Committee (UPDAC) and the Health Plan Pharmacy Data Oversight Committee (HPDOC), can gain experience and expertise in collectively using pharmacy data to support public health surveillance and quality improvement in Utah.

Voluntarily reported pharmacy data from health plans represent a partial picture of medicine utilization in Utah. In the second phase, the UPDAC may propose collection of prescription drug data directly from approximately 476 licensed pharmacies in the state. An administrative rule under the Health Data Authority (26-33a) to mandate a statewide, population-based collection from all pharmacies, may be needed to assure the completeness of the data collection. The Health Data Committee must follow the administrative rule making process, which requires them to conduct public hearings and solicit expert input from all stakeholders and partners. The UPDAC will continue to be the advisory body to the HDC in planning for Phase II of the Utah Pharmacy Data Plan.

## **B.** The Health Plan Pharmacy Database Oversight Committee (HPPDOC)

The Health Data Committee (HDC) will create an oversight committee to advise the management of the Utah health plan pharmacy database. The membership of the oversight committee shall include one representative from each of the participating health plans, one representative for public health users, one representative for quality improvement users, one representative for potential research users, one representative from the Utah Pharmaceutical Association, and one representative from the Utah Medical Association. The HDC's Executive Secretary will chair the oversight committee. The Office of Health Care Statistics will provide staff support to the committee.

The responsibilities of the HPPDOC are to:

- Monitor the implementation of the Utah Pharmacy Data Plan Version 1
- Recommend necessary modifications to the Utah Pharmacy Data Plan Version 1
- Coordinate financial resources to support the health plan pharmacy database
- Review and approve the public reports derived from the database
- Provide consultation on special requests for data/information access and disclosure
- Evaluate the Phase I performance and decide whether the health plan data project should be continued in Phase II

## **C.** Confidentiality

Data suppliers may provide information to the Health Data Committee on a voluntary basis. An administrative rule is not required to allow data suppliers to provide information to the committee. Information voluntarily supplied to the committee enjoys the same confidentiality protections and restrictions on disclosure as data that is gathered pursuant to the existing administrative rules.

## 1. Patient Consent

The HIPAA Standards for Privacy of Individually Identifiable Health Information Section 164.512 (b) allows health plans to participate in this initiative without individual patient consent:

"(b) Standard: uses and disclosures for public health activities.

(1) Permitted disclosures. A covered entity may disclose protected health information for the public health activities and purposes described in this paragraph to:

(i) A public health authority that is authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury, or disability, including, but not limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of public health surveillance, public health investigations, and public health interventions." (HIPAA 164.512(b))"

## 2. Record Classification

The Utah Health Data Authority Act, Section 108, specifically classifies all information, reports, statements, memoranda, or other data received by the committee as "strictly confidential." These data "shall not be subject to subpoena or similar compulsory process in any civil or criminal, judicial, administrative, or legislative proceeding." (Utah Code 26-33a-111).

The data collected under the Utah Pharmacy Data Plan will be classified as "strictly confidential," since they will be collected under the Health Data Authority Act. The Administrative Rule 428-2 Health Data Authority Standards will guide the procedures of managing confidential information for Health Data.

## 3. Access to Identifiable Information

Identifiable information in the Utah Health Plan Pharmacy Database means that a data element can identify pharmacy, prescriber, or health plan/data supplier. No patient identifiable information will be collected in the database in Phase I. The identifiable information will be accessible only by the authorized data management personnel in the OHCS.

# 4. No Release of Identifiable Information on Pharmacy, Prescriber, or Health Plan/Data Supplier

Prescriber ID Number and Alternative Prescriber Number are optional data elements for data collection in Phase I. The HDC will not publicly report on any health-plan, prescriber, and pharmacy-level information from the Health Plan Pharmacy Database.

When the HDC provides each health plan/data supplier a de-identified statewide pharmacy claims data set from the statewide pharmacy claims database, this de-identified data set will not include data elements of Prescriber ID and Pharmacy Number. A plan-specific flag (Yes vs. No) will be set up in the de-identified file to indicate whether a record was supplied by the data-receiving health plan.

The project staff will only provide plan-specific data to each health plan. No plan-level information will be discussed outside of the project staff, unless permission is given by each health plan.

## 5. No Profiling on Pharmacy, Prescriber, or Health Plan/Data Supplier

The Utah Department of Health shall analyze and report the health plan pharmacy data as defined in Section III Data Uses for Public Health Surveillance and Quality Improvement and Pharmacy Data Reporting Design. This data plan does not design any profiling on pharmacy, prescriber, or health plan. Any proposal for new reports has to be approved by the Oversight Committee.

Identifications of pharmacies, prescribers, and participating health plans will not be included in the de-identified data file shared with the data suppliers. Therefore, health plans would not be able to do any profiling on pharmacies, prescribers, and health plans as well.

To avoid indirect identification of a pharmacy or prescriber in a small area such as a zip code, the UPDAC recommends that there should be no zip code-level reporting. If a county only contains one zip code or less than three pharmacies or clinics, the county should be grouped with adjacent counties in a report.

## 6. Approve Special Requests for Using the Utah Health Plan Pharmacy Data

Any release of identifiable information must be reviewed and approved by a Requester's Institutional Review Board (IRB), Utah Department of Health's IRB, and the Health Plan Pharmacy Data Oversight Committee. Individual data supplier/health plan has a veto power to reject a release of the records originally submitted by the data supplier/health plan. All data releases will be recorded and periodically reviewed by the management and reported to the Oversight Committee.

## 7. Approve Statewide Public Reports

The OHCS shall provide a review copy of any draft public reports to a participating health plan and all members of the Oversight Committee for input prior to any public release using the health plan's data. The input or comments from a participating health plan and the Oversight Committee members shall be considered and incorporated into the report accordingly. The OHCS shall assure the

confidentiality data suppliers in all public releases. The Oversight Committee has authority to approve public releases of the reports generated from the Utah Health Plan Pharmacy Database.

#### 8. No Data Sales in Phase I

The data collected under the Utah Pharmacy Data Plan Version 1 shall not be sold for financial reason. Without consent of data suppliers and approval from the Oversight Committee, no data release can be conducted.

#### 9. Penalty for Failure to Protect Confidentiality

All OHCS staff members, who access to the identifiable information in the Utah Health Plan Pharmacy Database, will sign a confidentiality agreement. If a staff member fails to keep his/her pledge of confidentiality, this person will be denied access to the database and be subject to legal penalties. Any use, release, or publication of pharmacy data contrary to the provisions stated in the Utah Pharmacy Data Plan are class A misdemeanors, and may result in civil liability that may be grounds for immediate dismissal.

## D. Utah Pharmacy Database Standards in Phase I

## 1. Standards for the Claim-Level Data

Pharmacy industry is known as having better data standards than other health care sectors. Currently, there are two existing national standards for electronic transmission of pharmacy data. The National Council for Prescription Drug Programs' (NCPDP) Telecommunication Standard Format, Version 5 Release 1, is used for real time transmission. The American Society for Automation in Pharmacy ASAP<sup>®</sup> Telecommunications Format is more likely to be used in data transmission in a batch mode. Utah Controlled Substance Database receives data from more than 400 pharmacies using the ASAP<sup>®</sup> Telecommunications Format.

The Utah Pharmacy Advisory Committee recommends that the Utah Health Plans Pharmacy Claims Database adopts the ASAP© Format as its standard. Table IV-1 lists the data elements and file layout. To protect patient confidentiality, patient names and street address will not be collected in Phase I.

	Field	Field	Field	
Field	Number	Format	Length	Positions
Ø Identifier [Filler]	1	A/N	3	001-003
Ø Bin [Filler]	2	Ν	6	004-009
Ø Version Number [Filler]	3	Ν	2	010-011
Ø Transaction Code[Filler]	4	Ν	2	012-013
$\sqrt{\text{Pharmacy Number}}$	5	A/N	12	014-025
$\sqrt{\text{Customer ID Number}}$	6	A/N	20	026-045
[Filler]	7	A/N	3	046-048
$\sqrt{\text{Birth Date}}$	8	Ν	8	049-056
$\sqrt{\text{Sex Code}}$	9	Ν	1	057-057
Date Filled	10	Ν	8	058-065
$\sqrt{\mathbf{Rx} \mathbf{Number}}$	11	Ν	7	066-072
$\sqrt{\text{New Refill Code}}$	12	Ν	2	073-074
Metric Quantity	13	Ν	5	075-079
$\sqrt{\text{Days Supply}}$	14	Ν	3	080-082
♦ Compound Code	15	Ν	1	083-083
$\sqrt{\text{NDC}}$ Number	16	Ν	11	084-094
<ul> <li>Prescriber ID Number</li> </ul>	17	A/N	10	095-104
$\sqrt{\text{DEA Suffix}}$	18	A/N	4	105-108
Date Rx Written	19	Ν	8	109-116
Number Refills Authorized	20	Ν	2	117-118
♦ Rx Origin Code	21	Ν	1	119-119
♦ Customer Location	22	Ν	2	120-121
$\sqrt{\text{Diagnosis Code}}$	23	A/N	7	122-128
♦ Alternate Prescriber Number	24	A/N	10	129-138
Ø Patient Last Name[Filler]	25	A/N	15	139-153
Ø Patient First Name[Filler]	26	A/N	15	154-168
Ø Patient Street Address[Filler]	27	A/N	30	169-198
♦ State	28	A/N	2	199-200
$\sqrt{\text{Zip Code (Extended)}}$	29	A/N	9	201-209
$\sqrt{\text{GPI}/\text{GCN}}$ number	30	A/N	12	210-211
$\sqrt{\text{GPI/GCN}}$ code	31	A/N	1	212-212
Therapeutic Class Code	32	A/N	6	213-218

## Table 16. Health Plan Pharmacy Claims Data Elements and File Layout

Note: This requirement is based on the American Society for Automation in Pharmacy's ASAP<sup>©</sup> Telecommunications Format and the Utah Controlled Substance Database Program's Standard. Ø Not Applicable or mandatory

 $\sqrt{1}$  Information required and will be checked for compliance & accuracy

♦ Information optional

## • Description of the Selection Criteria for Prescription-Level Records

A participating health plan shall submit all paid prescriptions claims filled by pharmacies in Utah from January 1, 2003 to December 31, 2003, for all covered persons with a Utah zip code for mailing address in the insurance carrier's prescription claims database, regardless of product line or type of health insurance coverage.

## 2. Standards for Aggregated Data at the Participating Health Plan Level

The prescription level data provides the numerators that will be used to calculate utilization rates among health plan members. Health plan membership summary information is needed as the denominators for calculating utilization rates of prescription drugs.

## • Elements of Aggregated Data:

Aggregated Number of member-year converted from member-month

BY

- 1. Age (0-4, 5-9, 10-17, 18-44, 45-64, 65+)
- 2. Gender (Male, Female)
- 3. County
- 4. Flag for commercial (=1), public programs (=2) and self-funded plans (=3)

## Table 17. Example of the Aggregated Data File Layout

Member Year	Age	Gender	County Code	Plan-Flag
Count	1	F	1	1
Count	1	Μ	1	1
Count	85+	F	29	3
Count	85+	Μ	29	3

## Table 18. Health Plan Aggregated Data Elements and File Layout

Field	Field Number	Field Format	Field Length	Positions
Member Year	1	Ν	8	1-8
Age	2	Ν	8	8-16
Gender	3	A/N	1	17
Zip Code	4	A/N	9	18-26
Plan-Flag	5	A/N	1	27

## • Description of the Selection Criteria for Prescription-Level Records

Member years from January 1, 2003 to December 31, 2003 for all covered lives with a Utah zip code in mailing address in an insurer's prescription claims database, regardless of product line or type of health insurance coverage.

## 3. Data Submission Time, File Layout, and File Transaction

The Utah Pharmacy Data Project expects to receive the claim-level and aggregated data from a participating health plan within three months of the signing of a Memorandum of Agreement (MOA) by the participating health plan and Utah Department of Health. This is a one-time submission.

The claim data file needs to be in the ASAP Telecommunication Format, ASCII, fixed length. The aggregated data file can be in a spreadsheet or text file.

UDOH can accommodate various file transaction formats. All file transactions have to be password protected and in a secured electronic environment.

## E. Database Management and Coordination of Financial Resource

The implementation of the Utah Pharmacy Data Plan Version 1 will be governed by Utah Health Code Title 26 Chapter 33a Health Data Authority Act, Administrative Rules 428-1 and R428-2. The pharmacy database management will also follow other established policies and procedures for other database managed by the OHCS.

Because Phase I health plan pharmacy data collection will be a pilot project, the Utah Department of Health did not request any additional state general funds to implement this initiative in State Fiscal Year 2004-2005. The current state general funds for the OHCS can support following responsibilities for the OHCS to:

- Lead planning efforts
- Raise funds or in-kind contributions for the project
- Administrate the MOAs with data suppliers and data users
- Coordinate data submissions, process, development of database and reports according to the resources.

The Division of Community and Family Health Services has signed an MOA and committed \$27,500 by July 1, 2004 for developing public health surveillance capacity of using health plans' pharmacy data. The OHCS plans to use a part of the one-time fund to contract with the University of Utah Department of Pharmacy Practice to develop computer mapping programs to group specific drugs into ten selected indicators defined in Section III. The rest of \$27,500 will be used for developing computer programs to generate the indicator and utilization reports specified in Section III.

The Division of Health Care Finance has granted the permission for the OHCS to extract deidentified pharmacy data from the Medicaid Data Warehouse. The Utah Medicaid Program will also provide in-kind contribution to develop an IT infrastructure for this pilot project. The OHCS will have an agreement with Medicaid to store the pharmacy database in the Medicaid data warehouse box. This is a secured Teradata server. The architecture of this secured server will allow only authorized OHCS staff members to have complete access to the statewide health plan pharmacy database.

To develop a statewide pharmacy database puts new challenges on the OHCS financially, technically and scientifically. The above assured resources may not be enough to complete all planned tasks. Continuous fund raising is required. The OHCS has tried to solicit support from the federal agencies by submitting a grant application to the Agency for Healthcare Research and Quality in 2003. Since the Health Data Committee has not approved a statewide pharmacy data plan at that time, the potential grantor questioned the OHCS's ability to collect statewide pharmacy data and did not grant the application. After the Utah Pharmacy Data Plan Version 1 is approved, the OHCS will try again to solicit financial supports from federal agencies.

Furthermore, the OHCS shall work with the potential users of the database and the Utah Pharmacy Data Advisory Committee continuously to raise funds and in-kind contributions to support the database development. The Health Data Committee especially encourages all stakeholders and interested parties of the Utah Pharmacy Data Plan to apply for federal and foundation grants to support the new data collection and reporting activities.

## F. Data Collection Agreement With Participating Health Plans

The Utah Department of Health will sign a Memorandum of Agreement (MOA) with each participating health plan. The proposed MOA is presented on the next page.

## EXAMPLE OF MEMORANDUM OF AGREEMENT BETWEEN UTAH DEPARTMENT OF HEALTH AND <u>A VOLUNTARY PARTICIPATING HEALTH PLAN</u> Effective Date: 07/01/2004 through 06/30/2005

This Memorandum of Agreement is between Utah Department of Health, the Center for Health Data, Office of Health Care Statistics (HCS) and <u>Name of a Health Plan</u>.

## I. Definitions

- 1. INITIATIVE means the Utah Pharmacy Data Initiative guided by the Utah Health Data Committee under the Utah Health Data Authority (Title 26-33a)
- 2. DEPARTMENT means Office of Health Care Statistics of the Center for Health Data, Utah Department of Health.
- 3. DATA CONTRIBUTOR(S) means the health plan(s) that provide data to the INITIATIVE.
- 4. FNHP means <u>Full Name of a Health Plan</u>
- 5. OVERSIGHT COMMITTEE means the Utah Health Plans Pharmacy Data Management Oversight Committee organized by the DEPARTMENT and approved by Utah Health Data Committee.
- 6. DATA PLAN means the 2004-2005 Utah Pharmacy Data Plan developed by the Utah Pharmacy Data Advisory Committee and approved by the Utah Health Data Committee.
- 7. PHARMACY CLAIMS RECORDS means the data elements and file layout specified in the DATA PLAN.
- 8. AGGREGATED DATA means the aggregated membership information as defined in the DATA PLAN.
- 9. REPORT(S) means the standard report(s) designed in the DATA PLAN.

## **II. Services to be Performed**

- 1. FNHP shall:
  - a. Designate a representative serving on the OVERSIGHT COMMITTEE
  - a. Directly provide the PHARMACY CLAIMS RECORDS and AGGREGATED DATA as defined in the DATA PLAN to DEPARTMENT within 90 days after this MOA becomes effective. AGGREGATED DATA shall not include any data that could be used to identify an individual FNHP member.
  - b. Provide consultation to DEPARTMENT on quality and completeness of the PHARMACY CLAIMS RECORDS and AGGREGATED DATA.
  - c. Review the REPORTS and recommend improvements of the REPORTS.
- 2. The DEPARTMENT shall:
  - a. Implement the DATA PLAN under the OVERSIGHT COMMITTEE's guidance.
  - b. Work with the DATA CONTRIBUTORS to assure timely and accurate data extraction and transmission.
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- c. Provide transmission verification information to a DATA CONTRIBUTOR within 10 working days after receiving the PHARMACY CLAIMS RECORDS and AGGREGATED DATA.
- d. Develop the statewide pharmacy claims database.
- e. Provide a review copy of the draft REPORTS to a DATA CONTRIBUTOR for input prior to any public release using the DATA CONTRIBUTOR's data.
- f. Produce the first statewide REPORT within 90 working days after receiving the PHARMACY CLAIMS RECORDS and AGGREGATED DATA from all participating DATA CONTRIBUTORS.
- g. Provide each DATA CONTRIBUTOR a de-identified statewide pharmacy claims data set from the statewide pharmacy claims database.
- h. Provide each DATA CONTRIBUTOR the DATA CONTRIBUTOR-specific REPORTS.
- i. Share the analytical computer programs with DATA CONTRIBUTORS if requested.
- j. Assure the confidentiality DATA CONTRIBUTORS in all public releases approved by the OVERSIGHT COMMITTEE.
- 3. The DEPARTMENT shall:
  - a. Not collect patient name and address from the DATA CONTRIBUTORS.
  - b. Not report patient identifiers.
  - c. Not report prescriber identifiers.
  - d. Not report the DATA CONTRIBUTOR-level information publicly.
  - e. Not sell the data collected under this agreement.
  - f. Not release the data without consent of DATA CONTRIBUTOR.
  - g. Not release the data without the OVERSIGHT COMMITTEE's approval.
  - h. Not analyze the data for any purpose that is not defined in the DATA PLAN.

#### **III.** Confidentiality

All parties shall have policies and procedures in place to assure confidentiality of claims-level and DATA CONTRIBUTOR-level information that conform to federal and state law and rule.

#### **IV. Disclosure/Dissemination**

- 1. No report shall be published or data disclosed that permits identification of an enrollee, a health plan/DATA CONTRIBUTOR or health care provider.
- 2. All reports and data releases shall follow the policy and procedures defined in the DATA PLAN or approved by the OVERSIGHT COMMITTEE.

#### V. Payment

- 1. The DEPARTMENT is not responsible for any cost involved with providing the PHARMACY CLAIM RECORDS and AGGREGATED DATA to the DEPARTMENT.
- 2. FNHP is not responsible for any cost involved with data management, analysis, and reporting by the DEPARTMENT.

#### VI. Duration of Agreement

This MOA will become effective July 1, 2004, and will remain effective through June 30, 2005.

#### VII. Contact Persons

OrganizationNamePhoneE-mail AddressDEPARTMENTFNHPImage: Second Second

#### VIII. Term of Agreement

The term of this agreement shall begin on July 1, 2004 and will terminate June 30, 2005. This agreement constitutes the entire agreement between the parties. Any modifications, additions, or renewals must be in writing.

## IN WITNESS WHEREOF, the parties sign this Contract

CONTRACTOR: <u>A Health Plan</u>

Print Name: \_\_\_\_\_

Title:

Federal Tax Identification Number or Social Security Number

## UTAH DEPARTMENT OF HEALTH

By:

Shari A. Watkins, C.P.A.IDirector,Office of Fiscal Operations

Date

## EXAMPLE MEMORANDUM OF AGREEMENT BETWEEN OFFICE OF HEALTH CARE STATISTICS CENTER FOR HEALTH DATA AND BUREAU OF HEALTH PROMOTION BUREAU OF MATERNAL AND CHILD HEALTH DIVISION OF COMMUNITY AND FAMILY HEALTH SERVICES UTAH DEPARTMENT OF HEALTH

#### Effective Date: Immediately through 06/30/2004

This Memorandum of Agreement is between Utah Department of Health, the Center for Health Data, Office of Health Care Statistics (HCS) and the Division of Community and Family Health Services Bureau of Health Promotion (Asthma Program, Diabetes Prevention and Control Program, Heart Disease & Stroke Prevention Program) and Bureau of Maternal and Child Health (Reproductive Health Program and Child, Adolescent and School Health Program).

## I. Definitions

- 10. INITIATIVE means the Utah Pharmacy Data Initiative guided by the Utah Health Data Committee under the Utah Health Data Authority (Title 26-33a)
- 11. OHCS means Office of Health Care Statistics of the Center for Health Data, Utah Department of Health.
- 12. HEALTH PROMOTION means Asthma Program, Diabetes Prevention and Control Program, Heart Disease & Stroke Prevention Program.
- 13. MCH means the Maternal and Child Health Block Grant programs such as Reproductive Health Program and Child, Adolescent and School Health Program
- 14. OVERSIGHT COMMITTEE means the Utah Health Plans Pharmacy Data Management Oversight Committee organized by the OHCS and approved by Utah Health Data Committee.
- 15. DATA PLAN means the Utah Pharmacy Data Plan developed by the Utah Pharmacy Data Advisory Committee and approved by the Utah Health Data Committee.
- 16. Rx DATABASE means the prescription claims records reported by the participating health plans.
- 17. PREVALENCE means reference information on a disease prevalence among Utah residents obtained from other data sources or literature. This information will be used in indicator reporting.
- 18. NORM means comparable statistics from national or regional prescription data sources.
- 19. REPORT(S) means the standard report(s) designed in the DATA PLAN.

#### **II. Services to be Performed**

- 4. HEALTH PROMOTION and MCH shall;
  - a. Designate a representative for HEALTH PROMOTION and a representative for MCH serving on the OVERSIGHT COMMITTEE.

- b. Provide consultation to OHCS in the development of the DATA PLAN, especially the indicator definition and analytical method.
- c. Provide PREVALENCE and NORM data to OHCS if they are available.
- d. Review the REPORTS and recommend improvements of the REPORTS.
- e. Provide information on using Rx DATABASE to OHCS, which will be incorporated into the Health Data Committee's biennial report to the Governor.
- f. Collaborate with OHCS to fully develop a statewide Rx DATABASE.
- 5. OHCS shall;
  - k. Implement the DATA PLAN under the OVERSIGHT COMMITTEE's guidance.
  - 1. Produce 11 analytical tables on six indicators (Asthma, Diabetes, Hypercholesterolemia, Hypertension, Antidepressants, and Depression in Pregnancy Indicators) defined in the DATA PLAN.
  - m. Provide a review copy of the draft REPORTS to HEALTH PROMOTION and MCH for input prior to any public release.
  - n. Produce the first statewide REPORT within 90 working days after receiving the data from all participating health plans.
  - o. Share the analytical computer programs with HEALTH PROMOTION and MCH if requested.
  - p. Provide HEALTH PROMOTION and MCH all available additional information on the six indicators if the additional information is produced during the REPORTS development.
  - q. Collaborate with HEALTH PROMOTION and MCH to fully develop a statewide Rx DATABASE. Inform HEALTH PROMOTION and MCH the budget and expenditure for Rx DATABASE.
  - r. Support HEALTH PROMOTION and MCH's intervention activities within available resources.

## **III.** Confidentiality

All parties shall have policies and procedures in place to assure confidentiality of claims-level and health plan-level information that conform to federal and state law and rule.

## IV. Disclosure/Dissemination

- 3. No report shall be published or data disclosed that permits identification of an enrollee, a health plan or health care provider.
- 4. All reports and data releases shall follow the policy and procedures defined in the DATA PLAN or approved by the OVERSIGHT COMMITTEE.

## V. Payment

HEALTH PROMOTION will provide a total of \$\_\_\_\_\_ funds for OHCS to develop the indicator reports from the Rx DATABASE, specifically

- \$\_\_\_\_\_ for the Asthma Indicator from the Asthma Program
- \$\_\_\_\_\_ for the Diabetes Indicator from the Diabetes Prevention and Control Program. The work related to the Diabetes Indicator must be completed before March 29, 2004 and be billed for the work by April 15, 2004.
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- \$\_\_\_\_\_ for the Hypercholesterolemia Indicator from the Heart Disease & Stroke Prevention Program
- \$\_\_\_\_\_ for the Hypertension Indicator from the Heart Disease & Stroke Prevention Program
- \$\_\_\_\_\_ for the Depression in Pregnancy Indicator from the Reproductive Health Program
- \$\_\_\_\_\_ for the Adolescents Use of Antidepressants from the Child, Adolescent and School Health Program

Phone

#### VI. Duration of Agreement

This MOA will become effective immediately and will remain effective through June 30, 2004.

#### IX. Contact Persons

Organization Name OHCS Asthma Program Diabetes Program Heart Disease Program Reproductive Health Program CASH Program

#### VII. Term of Agreement

The term of this agreement shall begin immediately and will terminate June 30, 2004. This agreement constitutes the entire agreement between the parties. Any modifications, additions, or renewals must be in writing.

**HEALTH PROMOTION** 

## **OFFICE OF HEALTH CARE STATISTICS**

E-mail Address

## Asthma Program

Signature:	Name,	Program Manager	Signature:	Name,	Office Director
Date:			Date:		
Diabetes P	revention a	nd Control Program			
Signature: _	Name,	Program Manager			
Date:					

## Heart Disease & Stroke Prevention Program

Signature:

Name, Program Manager

Date:

## **Bureau of Health Promotion**

Signature: \_\_\_\_\_\_\_Name, Bureau Director

Date: \_\_\_\_\_

## MATERNAL AND CHILD HEALTH BLOCK GRANT

## **Reproductive Health Program**

Signature: \_\_\_\_\_\_\_Name, Program Manager Date:

## **CASH Program**

Signature: Name, Program Manager Date: \_\_\_\_\_

Bureau of Maternal and Child Health

Signature: \_\_\_\_\_\_Name, Bureau Director

Date:

#### **Division of Community and Family Health Services**

Signature:	
C	Name, Bureau Director
	Bureau of Financial Resources
Date:	

## **Center for Health Data**

Signature:

Darryl Name, Budget Officer Center for Health Data Date: \_\_\_\_\_

## **Utah Department of Health**

Shari A. Watkins, C.P.A. Date Director, Office of Fiscal Operations Utah Department of Health

# **SECTION V**

PLANNING FOR PHASE II

The Utah Pharmacy Data Plan Version I does not include specific contents on Phase II. The Utah Pharmacy Data Advisory Committee (UPDAC) will continue to serve as the advisory body to the Health Data Committee and guide the OHCS in planning for Phase II of the Utah Pharmacy Data Plan.

The data collected from participating health plans in Phase I represent a partial picture of medication utilization in Utah. Major uses of the health plan pharmacy database will be for public health surveillance and health plans' internal quality improvements. The data products in Phase I will be information in aggregated format. Physicians and other health care providers would not be able to access to the Phase I database and receive real-time feedback on their prescriptions for patients.

The UPDAC acknowledges physicians' need to have a statewide e-prescribing system. Prescribers need to have real-time access to the system and receive timely feedback on medication safety and prevention of possible prescription abuses. The advisory committee recommends that prescribers' needs should be considered and satisfied in planning for Phase II.

In the second phase, the UPDAC may propose to collect prescription drug data directly from approximately 476 licensed pharmacies in the state. Since the Department of Commerce (DOC) Division of Occupational & Professional Licensing manages the Utah Controlled Substance Database that receives data submissions from licensed pharmacies in Utah. The DOH will coordinate with the DOC in planning for Phase II to establish appropriate legislative authority and structures of oversight and management. The planning should include thorough assessments of all aspects of potential impacts to implement a comprehensive statewide pharmacy database, especially the fiscal impact on the Controlled Substance Database. All planning efforts and the entire process should be open to the public and all impacted organizations.

The Utah Pharmacy Data Plan should be implemented incrementally throughout the state. The OHCS shall not conduct active planning activities for the Phase II until a certainty of reaching the objectives in the Phase I is acknowledged by the Utah Pharmacy Data Advisory Committee and the Utah Health Data Committee.

The specific objectives for Phase I are defined in the Memoranda of Agreement (MOAs) between the Utah Department of Health and each of the voluntarily-participating health plans or between the OHCS and each of the sponsoring public health programs. Successful implementation of these MOAs will be a positive performance measure of Phase I of the Utah Pharmacy Data Plan.

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