Allied Medical Management Pharmacy Utilization Review Program

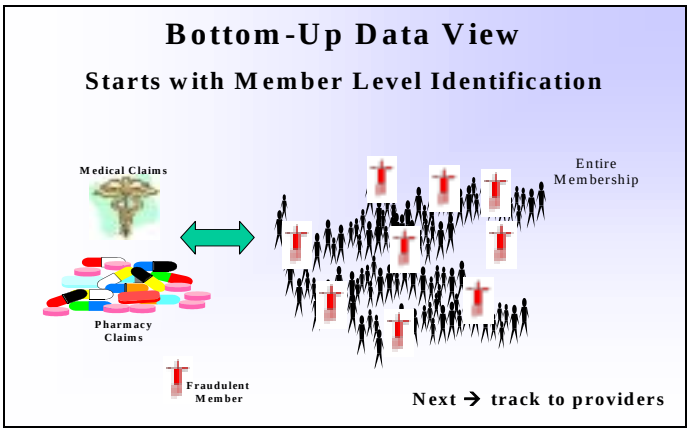
F&A/DUR/DDM

PURP Overview

The Pharmacy Utilization Review Program (PURP) integrates a client's hospital, medical and pharmacy data, and applies proprietary clinical software to that data in order to identify significant aberrant patterns of utilization by patient, prescribing provider and/or pharmacy. Once identified by Allied Medical Management's (AMM) software, the utilization patterns are assessed by the clinical team to identify the best ways to reduce or eliminate a client's costly, poor quality pharmaceutical experience.

AMM focuses on isolating prescribing patterns that are indicative of potential fraud and/or misutilization by patients and/or providers. Once a pattern is triggered, the Allied Medical Management team initiates a review of the complete patient profile (narrative summary, medical and pharmacy claims). The data is subjected to rigorous case review, analysis, presentation and recommendation for action.

The PURP program is centered on a "***Bottom-Up Methodology***" approach that analyzes the data at the patient ("micro") level and tracks the information upward to a "macro" level to pharmacies, physicians and specific drugs, as warranted. Such an approach allows fraud and misutilization to be detected at every possible step in the health care delivery process.



Once the initial data analysis is completed, the Allied Medical Management team reviews the cases identified by the software system on an ongoing basis (e.g. monthly). The client may chose to utilize their existing case management team in conjunction with the AMM team or perform their own reviews with only the AMM software tools and support. The AMM team will prepare and implement for the client a series of strategic interventions that will focus, as appropriate, on the recipient, the physician, the pharmacy and/or the drug.

All analyses will indicate recommendations for drug use management or restrictions, as warranted, punitive overpayment recovery action, PBM operational improvements and, if fraud is suspected, identification of collusion activities as well as evidence for prosecution. NOTE: Where the misutilization issue involves a particular drug, the Allied

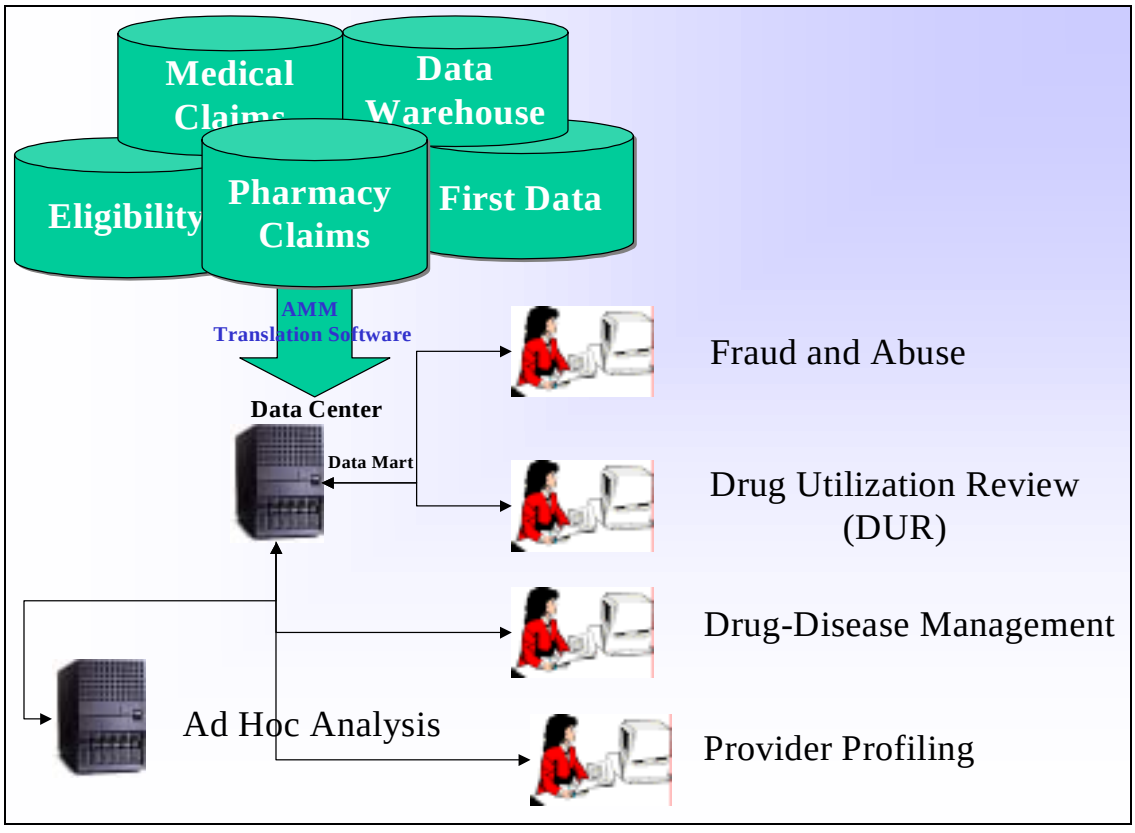
Medical Management team will also recommend benefit redesign or prior authorization services.

The Pharmacy Utilization Review Program concentrates clinical expertise into three specific areas:

1. **Fraud & Abuse** - To control fraud and abuse in healthcare one must take a complete approach. The AMM fraud modules review fraud and abuse at all levels (member, pharmacy and prescriber). The fraud and abuse system uses the marriage of medical and pharmacy claims to both reduce false positives and increase true positives.

2. **Drug Utilization Review (DUR)** - Advanced variations on industry standard drug utilization review protocols. Variations include unique episodic identification related to member and provider relationships.

3. **Drug-Disease Management (DDM)** - Drug-Disease Management is the next advance in healthcare technology. This approach links pharmacy and medical claims to create a more complete clinical picture and allow for more accurate identification of healthcare mismanagement.



Our Approach

The Allied Medical Management PURP basically involves five (5) steps.

1) Date Extraction Loading and Management – Allied Medical Management, coordinates with a client's vendors the required downloads of data utilizing standardized file layouts. For maximum effectiveness, vendors should include the client's pharmacy, medical (non-institutional) and hospital (institutional) carrier data.

2) Merge databases – Upon receipt of periodic data, the system will update the claims datasets on a regular basis (monthly, quarterly, etc.). Bringing together the relevant clinical datasets (Pharmacy and Medical Claims) Allied Medical Management creates an efficient clinical reporting engine, the AMM Clinical Data Mart.

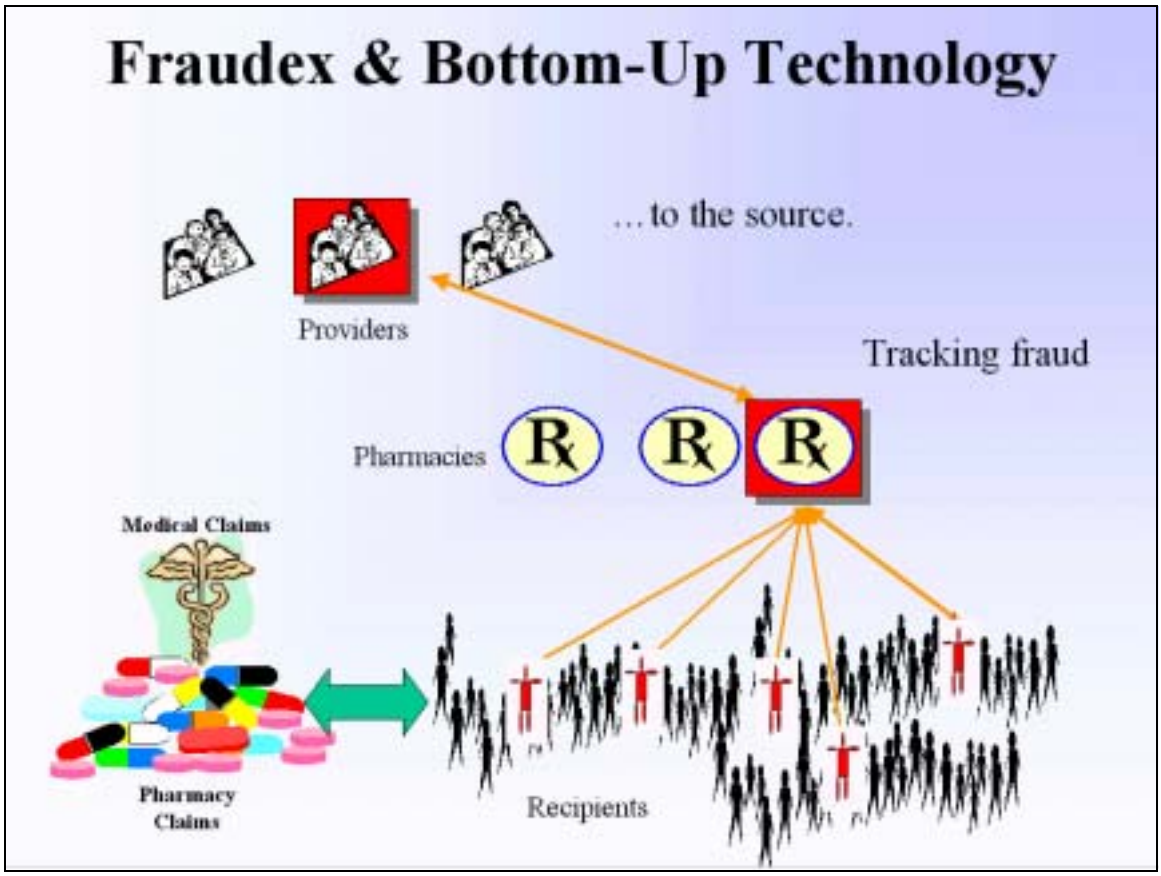
3) Software Analysis & Clinical Review – Utilizing proprietary software, Allied Medical Management's clinical team (RN/Pharm D.) analyzes the data (on a patient, provider and pharmacy specific basis) to identify aberrant practice patterns focusing on (a) potential fraud, (b) inappropriate utilization, (c) cost effectiveness (e.g., use of generic drugs) and (d) quality of care to include usage of contraindicated drugs as well as integration and optimization of drug utilization with an effective case management or disease management program.

4) Report/Action Plan – Based on the software analysis findings, Allied Medical Management will provide the Client with a series of report findings and recommendations including but not limited to, as appropriate, (a) Member restriction, (b) Case Management intervention, (c) Overpayment recovery and (d) Fraud referral.

5) Follow-up & Measurement – After implementation of a corrective action plan, Allied Medical Management will provide follow-up reporting, monitoring the effectiveness of the plan in terms of change in drug utilization behavior patterns with corresponding savings impacts or recovery of overpayments.

Pharmacy Fraud & Abuse

AMM's operational processes are centered on the '**Bottom-Up'** methodology. After the integration of medical, pharmacy and other pertinent demographics claims information, the fraud module processes the data to isolate the prescribing patterns of fraudulent patients and identify them.



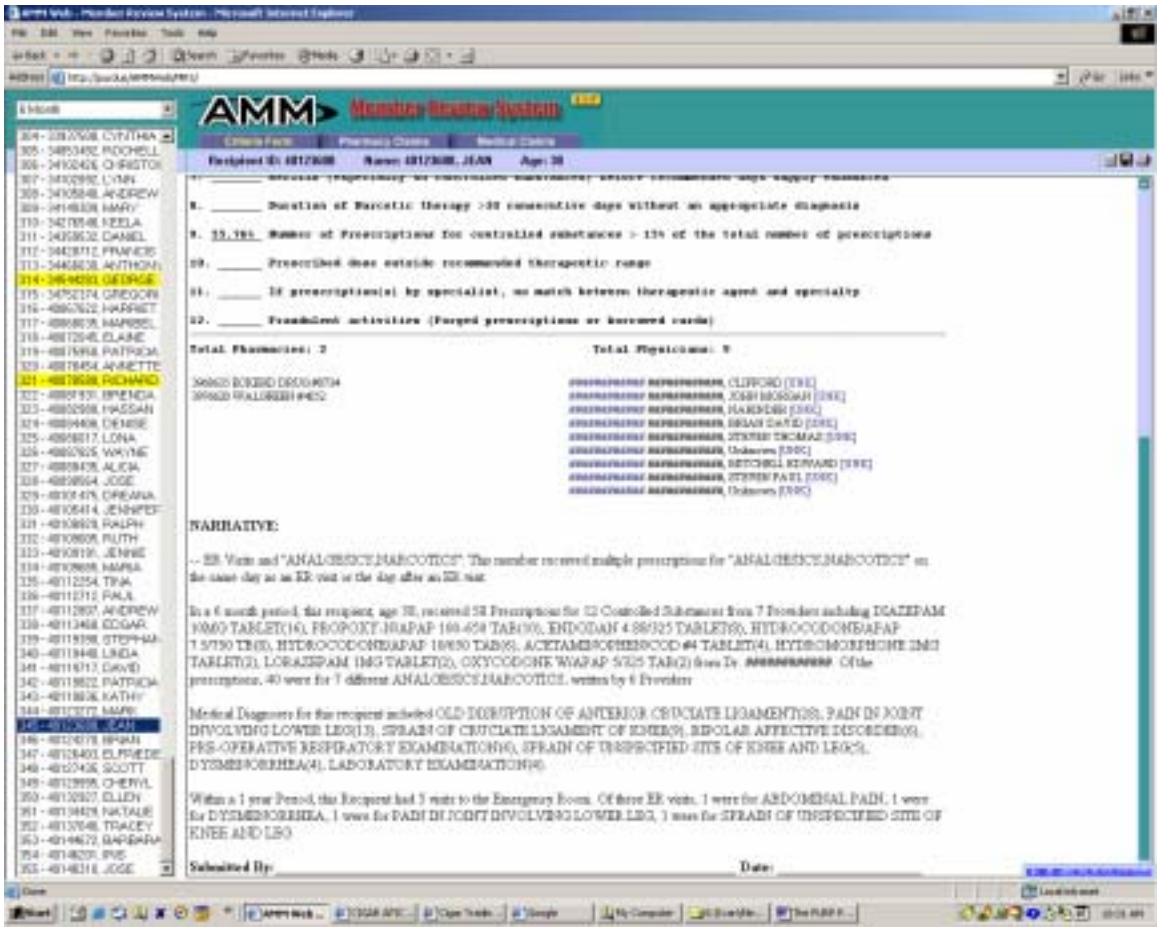
Once the program triggers specific **flags,** an "index of fraudulent activity" is established for each member of the population. The Healthcare Data Loader (HDL) takes the flagged recipients identified by the fraud module and populates the **Member Review System (MRS)** with the cases automatically. The pharmacy staff utilizes the MRS to review the complete patient profile (narrative summary, medical and pharmacy claims) on any designated desktop.

(The above screenshot illustrates a fraud and abuse case populated in the member review system concerning an opioid dependence diagnosis in the medical claims with a correspondingly inappropriate utilization of narcotics after the aforementioned diagnosis.).

From the desktop, profiles may be printed or sent electronically to the **Data Connection System (DCS)**. The DCS enables one user to easily assign and manage members for restriction to a single doctor and pharmacy. The DCS eliminates the time and paperwork that is usually associated with manual processes and, most significantly, allows the client to change and update erroneous provider data. Additionally, AMM supports clients' clinical staff by providing case review, analysis, presentation and recommendation for action. The process of new member fraud criteria identification is updated and maintained to learn from feedback and changes with the patterns of fraud change.

The fraud, abuse, and misuse reduction program is implemented around a "Bottom-Up Methodology". This process identifies fraudulent cases at the **patient level** and tracks the information flow that leads to fraudulent **pharmacies**, **physicians**, and **specific drugs**. The outcome is that no fraudulent patient/provider/pharmacy/utilization interaction is left unchecked. If only the fraudulent pharmacies or providers are removed, abusing patients

will quickly identify and gravitate to other problem providers. The Bottom-Up Methodology identifies and reduces fraudulent activity at every level.



(The above screenshot illustrates a fraud and abuse case populated in the member review system concerning a member with multiple emergency room visits in combination with excessive analgesic narcotic utilization. This example once again illustrates the power of analysis gained by linking medical and pharmacy claims in a <u>clinical</u> data mart).

Upon completion of the Bottom-Up analysis phase, Allied Medical Management works with the client organization to implement an optimal mix of the following strategies and/or reporting tools:

- Recipient
  - Recipient restriction program
  - Punitive member action
  - Identification of collusion
  - Evidence for prosecution
- Pharmacy
  - Fraudulent member-provider reports

- Evidence of 'Pill Mill' or collusion
- Restriction of services or participation
- Evidence for prosecution
- Tier I Audits
    - Prescription integrity
        1. Prescription number
        2. Default Provider
        3. Active ingredient
        4. Metric quantity
        5. Day supply
        6. Refills
        7. Dispensed as written (DAW) code
        8. Expiration dates
    - Drug class review for potential audits
    - Duplicate billing
    - Over-billing
- Tier II Audits (Sentinel Letters)

• Provider
- Fraudulent member-provider report
- Evidence of 'Pill Mill' or collusion
- Restriction of services or participation
- Evidence for prosecution

• Drug
- Benefit redesign
- Prior authorization targets

• Prescription Benefit Manager (PBM) and Claims Processor
- Analysis of online edit processing
- Recommendation of hard and soft edits for loss prevention
- Assist PBM or claims processor with new or existing edits
- **Audit your PBM**

After the strategies are implemented, automated extracts and interfaces facilitate the monitoring of the specific interventions. Both specific strategic targets, as well as overall pharmaceutical utilization are measured. The underlying clinical data server allows for both standard reporting and ad hoc reporting.

Modern Drug Dealer

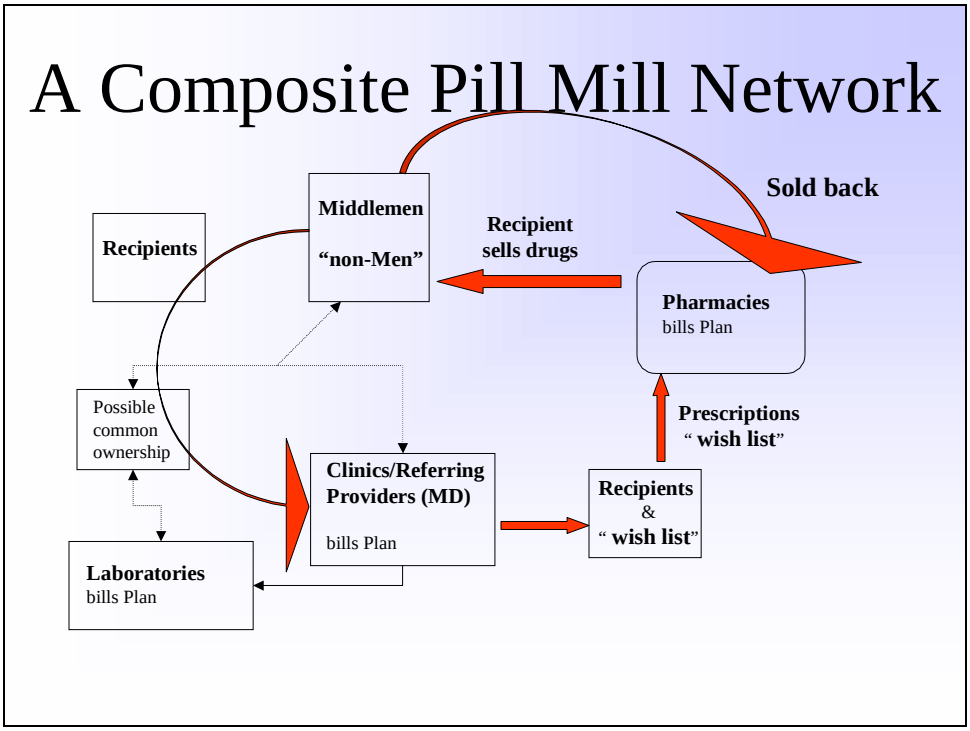
Newark, New Jersey

" Wish List" Street Value

Drug	*"non-Men" Pays*	*Health Plan Pays Pharmacy*
OxyContin	$4000**	$400
Diflucan	$30	$315
Zovirax	$20	$128
Zantac	$25	$94
Augmentin	$30	$58

Star-Ledger, September 27, 1998: p. 25

(This graphic illustrates the potential price differential between legitimate purchases and estimated street values of various drugs, including non-prescription medications).



(This graphic shows the worst-case scenario of collusion where the member, physician and pharmacy may all be involved, a classic "Pill Mill").

Advanced Drug Utilization Review (aDUR)

Allied Medical Management's Advanced Drug Utilization Review (aDUR) is an ongoing, systematic process designed to maintain appropriate and effective use of drugs. It involves a comprehensive review of patients' prescription data before, during, and after dispensing in order to assure appropriate therapeutic decision-making and positive patient outcomes.

Clinicians participating in DUR programs can directly improve the quality of care for patients, individually and as populations, by preventing the use of unnecessary or inappropriate drug therapy and by preventing adverse drug reactions. Additionally, participation in DUR activities is one means by which clinicians provide value to the health care system by exerting a positive influence on physician prescribing patterns.

DUR targets are typically queried by linking industry standard database tables (e.g. MediSpan, First Data Bank, MicroMedex, etc.) to the patient pharmacy claims file. The output is a list of potential DUR opportunities based on triggered exceptions without clinical review. Often these cases are sent out directly to patient or provider in form letter fashion without significant clinical thought or review. More often than not, a provider (physician or pharmacist) will receive and discard this general prescribing information.

The specific information necessary for providers to make critical interventions is typically not supplied. The lack of clinically relevant and specific information has long been one of the criticisms or limitations to effective DUR. For example, a provider may receive a typical DUR that indicates they prescribed two medications that may have a potential drug-drug interaction because they both treat hypertension, however the clinician is aware of this as they prescribed this medication on a regular basis and the patient has poorly controlled hypertension.

The AMM aDUR approach is the next generation in DUR implementation. The process mandates that rigorous clinical assessment and experience be added to the query logic for the successful completion of a DUR. Only pertinent information is identified and reviewed for clinical value prior to sending letter or fax transmissions. In this way the providers are detailed on the most exact and well thought out intervention opportunities.

By using this approach providers are more likely to respond to recommendations as it relates directly to their clinical practice. As an example, the system would identify a provider who was prescribing one hypertension medication that was filled by a patient who also filled multiple prescriptions for hypertension medications in that time period from other non-primary providers, and may or may not have a medical claim for the adverse side effect.

The following five steps are essential when conducting a comprehensive DUR program:

1) Identification of Target Initiative - Criteria are defined to allow for comparisons of optimal use with actual use. Criteria focus on relevant clinical outcomes.

2) Measurement of Actual Use – In this step data is gathered to measure the actual use of medications. This data can be obtained from medical and prescription records or electronic claim forms.

3) Clinical Review - In the clinical review process those cases flagged for additional scrutiny, typically those identifying discrepancies between optimal or appropriate use versus actual use, are assessed. During this process the evaluator can clinically validate inappropriate patterns and/or aberrations.

4) Intervention – At this point corrective action is recommended and documented. Action should be targeted to areas of concern such as prescribing patterns, medication misadventures, the quality of drug therapy, or economic considerations.

5) Evaluate the DUR Program - The last step is to assess the effectiveness of the DUR program. Efforts should be made to evaluate the outcomes and document reasons for positive and negative results. Implementation of appropriate changes to the DUR program and continued observation should be undertaken.

Drug Utilization Review

Review Categories

Type of Analysis	Number of Exception Criteria
Pediatric Duration of Therapy	1,920
Adult Duration of Therapy	1,240
Geriatric Duration of Therapy	1,263
Drug-Drug Interactions	7,400
Duplication of Therapy	3,000
Generic Utilization	11,000
Drug Maximum Daily Dosing	3,030
Drug Minimum Daily Dosing	3,030
Drug Gender Analysis	1,070
Beta-Blocker Therapy in Asthmatics	100
Polypharmacy	250
Dosage Conversion Module	77
Total Analyses	**Total Criteria**
12	33,380

Drug-Disease Management (DDM)

Allied Medical Management's model to contain all types of fraud and abuse provides additional significant benefits through the management of costly disease states. Previously, health plans have been left with few options to review utilization, most notably Drug Utilization Review (DUR) or Disease Management (DM). These processes are typically limited by their lack of access to a functional and efficient clinical reporting engine. By combining pharmacy claims (DUR review) with medical claims (DM review), Allied Medical Management takes a comprehensive patient approach we describe as **"Drug-Disease Measurement" (DDM)**.

Through the integration of medical and pharmacy claims, every aspect of a patient's healthcare is examined, bridging the gap between DUR and Disease Management. Thus, all of the Drug Utilization Review criteria, where appropriate, utilize medical claims to increase the likelihood of clinically significant 'true positives' and limiting 'false negatives'.

DDM provides the client with a pharmacy misuse reduction program implemented around a "Bottom-Up Methodology". This process identifies DDM cases at the **patient level** and tracks the information flow that leads to those specific **physicians**, and **disease states** that are poorly managed. The result is that specific educational provider interventions can be executed with minimal resource allocation and increased compliance. If a problem provider is inundated with multiple and nonspecific case interventions, they are less likely to learn from and comply with the intervention. Bottom-Up Methodology allows a client to efficiently identify and reduce misuse at every level.

Upon completion of the Drug-Disease analysis phase, Allied Medical Management works with the client organization to implement an optimal mix of the following strategies:

Review and reporting includes, but is not limited to, the following:

1. Drug level review
    a. Therapeutic class
        i. American Hospital Formulary Service (AHFS)
        ii. Hierarchal Ingredient Code (HIC), FirstData Bank
        iii. National drug code (NDC)
    b. Generic code number (GCN)
    c. Active ingredient
    d. Diagnosis-based (ICD-9) relation to drug therapy
    e. Detailed cost analysis
    f. Manufacturer Market-Share analysis

2. Patient level review
    a. Duplicate therapy
    b. Pregnancy Drug Review
    c. Medication dosing outside of therapeutic range (Min./Max. Dosing)

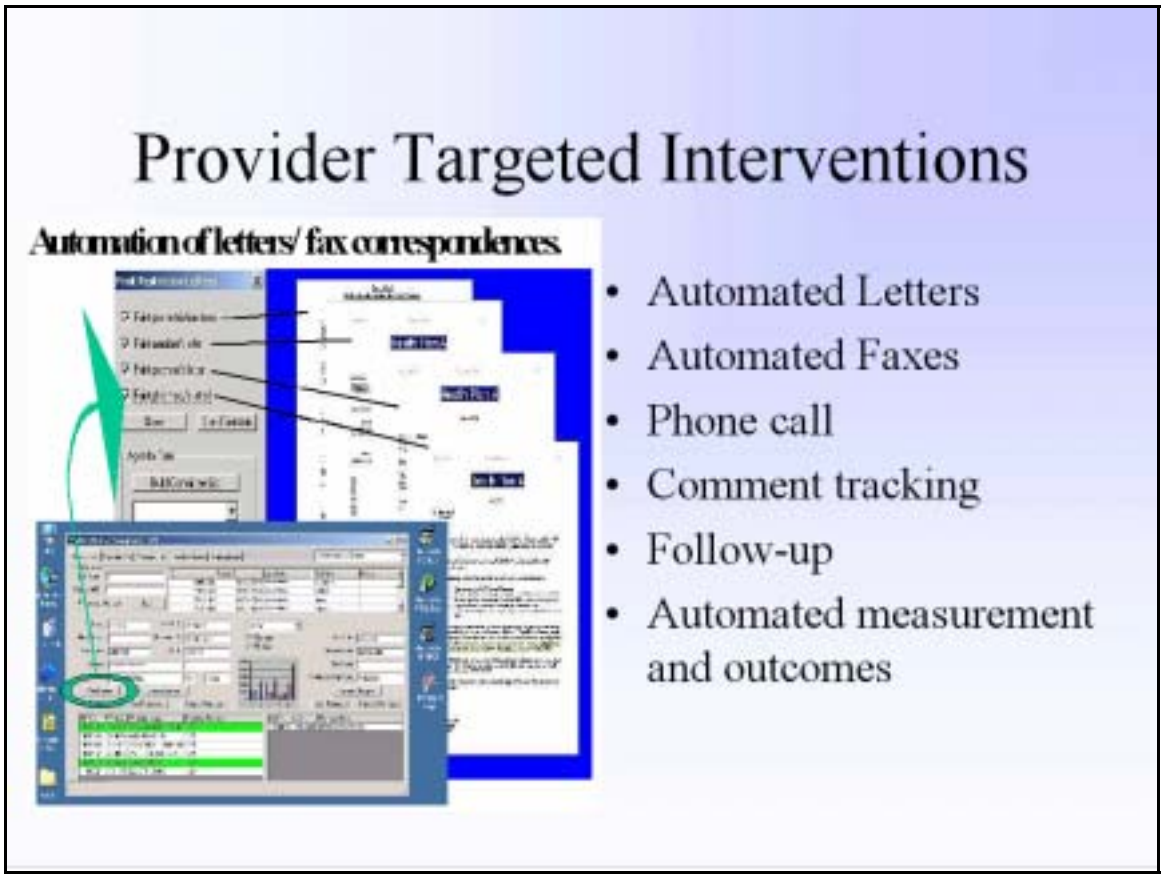
    d. Duration of Therapy
        i. Geriatric
        ii. Pediatric
    e. Adverse drug-disease state events
    f. Drug-drug interactions
    g. Gender Analysis
    h. Polypharmacy
    i. Specialty Flags (Injectables, disease specific, drug specific, etc)
    j. Dosage Conversion Optimization

3. Pharmacy level review
    a. Formulary compliance
    b. Bottom-up analysis

4. Physician profiling
    a. Drug-Disease state mismanagement
    b. Identification for provider education (academic detailing)
        i. Drug specific
        ii. Disease specific
    c. Manufacturer penetration
    d. Inappropriate prescribing patterns

The identified members are sent to the MRS reporting tool in the same format as the fraud cases. The DDM cases are identified with specific targets and a summary narrative to direct the reviewing pharmacist. With early identification, the member obtains the care they need and avoids unnecessary hospitalization and illness.

Allied Medical Management combines this advanced clinical data technology and our team of experienced professionals to support the containment of pharmacy costs by improving recipient care through fraud and abuse as well as DUR and DDM.



The actual interventions can be executed by fax, telephone call, and/or letter, with provider comments recorded for future reference or action.

Allied Medical Management will implement a uniform, consistent set of medical guidelines and criteria for reviewing pharmacy experience in conjunction with "best practice" clinical treatment guidelines and protocols. The client is assured that all reports and information received from vendors are kept in a secure and confidential manner, in conformance with HIPAA provisions.

The AMM team will review and keep current and available all communication material transmitted between Allied Medical Management and the client. Individual patient records will be maintained by identifier in a guaranteed confidential manner with data provided to the client on an ongoing basis.

ALLIED MEDICAL MANAGEMENT UNIVERSAL

DRUG-DISEASE MANAGEMENT TEMPLATE

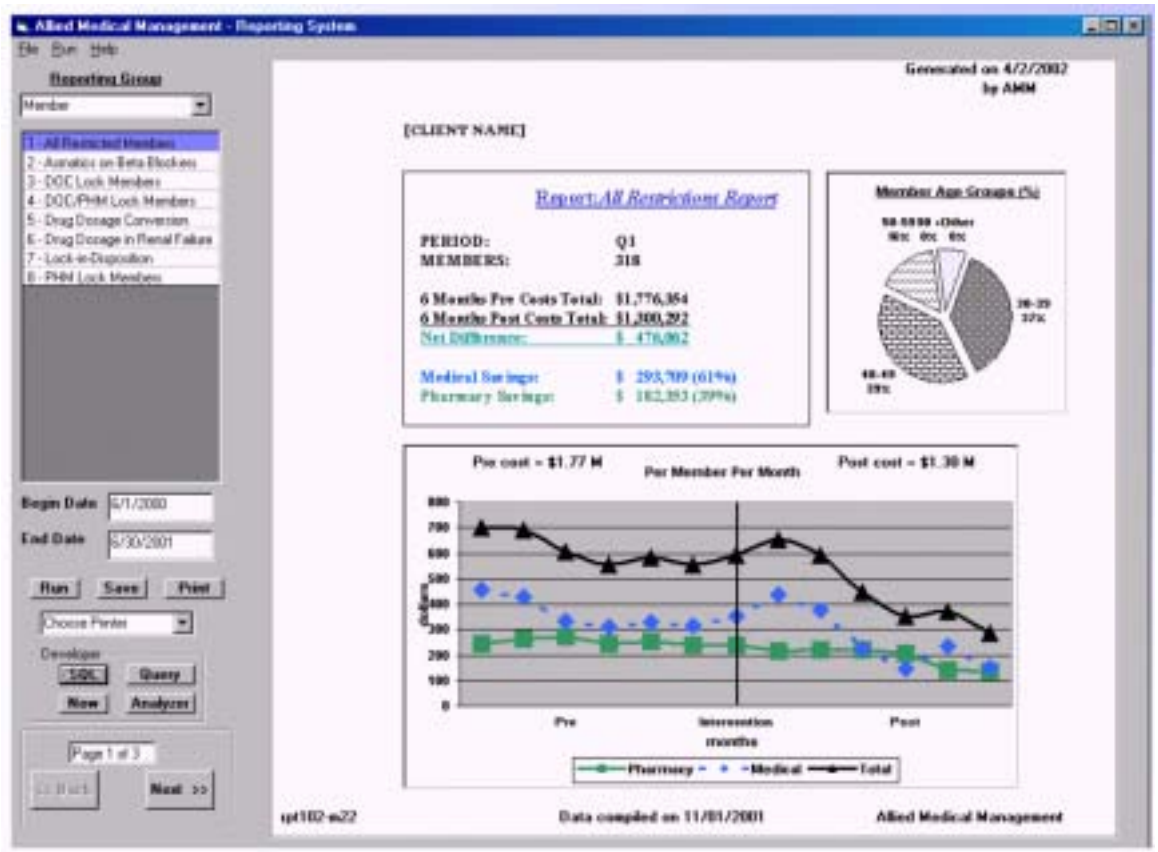
DRUG CLAIMS >>>	*DRUG + MEDICAL CLAIM*	*<<<MEDICAL CLAIMS*	DEMOGRAPHICS
DUPLICATE THERAPY	ADVERSE DISEASE -DRUG COMBINATIONS	UNDER REPORTER	*SEX*
ADVERSE DRUG-DRUG REACTION	PREVENTATIVE DISEASE –DRUG COMBINATIONS	ER	AGE
COST EFFECTIVE	DIAGNOSIS WITHOUT DRUG THERAPY	ER LEVEL V	CO-MORBIDITY
MIN-MAX DOSING	INEFFECTIVE DRUG THERAPY FOR DIAGNOSIS	ER LEVEL IV	ZIP CODE
FREQUENCY	GUIDELINE ADHERENCE	SEVERE DIAGNOSIS CODES	
INAPPROPRIATE DURATION +/-			
NON-ADHERENCE			

Allied Medical Management integrates the payor's medical and pharmacy data, then applies proprietary software tools and 'clinical know how' to reduce or eliminate costly pharmacy fraud and misutilization.

Health plans and payor's are frequently faced with the complex challenge of dealing with many necessary data bases that are not centrally located or if so poorly accessible. To address this dilemma we believe the first and most important step is to bring together all of the disparate but critical data sets. Allied Medical Management's easy to use software tools allow for the creation of a clinical data mart containing all the pertinent claims information. In contrast, a 'data warehouse' may not be updated with the most relevant data, or include all the necessary data, and does not allow for timely or easy access to the desired information.

Allied Medical Management completes this task through the application of the **Healthcare Data Loader (HDL)** and the **Clinical Data Mart (CDM)** software. The HDL software brings together the many disparate data sets found in a health plan's network, wherever the data is located. The software integrates medical claims, pharmacy claims, member eligibility, provider eligibility and updated NDC drug data files into an efficient engine for reporting, the CDM. The clinical data mart is updated monthly or as data files are available.

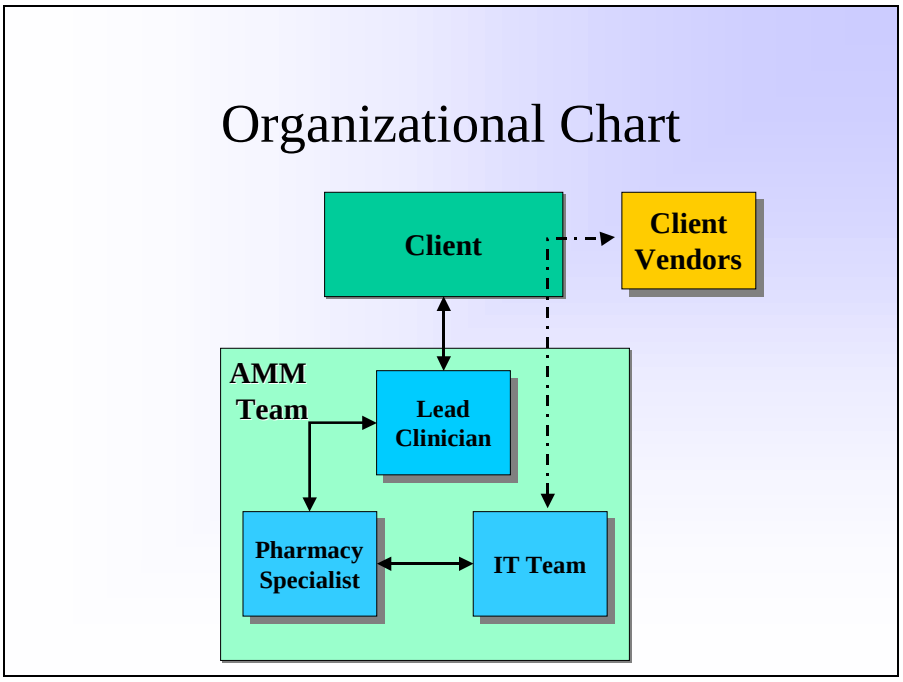
Reporting and Measurement



Once an intervention initiative has been completed, the AMM team will focus on the measurement and reporting function. Calculated savings for cost saving initiatives will compare members' pre and post intervention costs for both medical and pharmacy claims. The team will target specific measurements that are relevant to that initiative. Reporting can be Ad Hoc in addition to the standard reports.

An internal quality assurance process is established specific to the Program to profile the reviewing clincians in relation to the achievement of outcome measurements in the analytic reporting process including clarity and timely completion of reports with appropriate findings.

Pharmacy Utilization Review Program Staffing



The AMM team includes the unique combination of clinical and technology specialists, working in tandem to access the required claims data, create the clinical data mart, identify the appropriate opportunities, and follow through with the interventions, post intervention reporting and ongoing monitoring.

The team coordinates pharmacy utilization experience into active case management program activity. Allied Medical Management's pharmacists, nurse reviewers and physicians perform clinical review of a client's pharmacy utilization. .