# STRIVE

## Staff Time and Resource Intensity Verification

Technical Expert Panel Meeting

December 1, 2005

STRIVE@IFMC.ORG

# Welcome & Introductions

- Jean Eby, Director,
  Iowa Foundation for Medical Care
- Kathy Langenberg, R.N.,
  STRIVE Operations Manager,
  Iowa Foundation for Medical Care
- Dane Pelfrey, STRIVE Project Manager,
  Iowa Foundation for Medical Care

# Welcome & Introductions

- Bob Burke, Ph.D.,
  STRIVE Project Director,
  The George Washington University
- Brant Fries, Ph.D., STRIVE Analytic Task Lead,
  University of Michigan
- Bob Godbout, Ph.D.,
  STRIVE Survey Design Consultant, Stepwise
- Dave Malitz, Ph.D.,
  STRIVE Survey Design Consultant, Stepwise
- Dave Oatway, R.N., M.P.H.,
  STRIVE Database Manager, CareTrack

# Geographic Distribution of Project Team

- IFMC is based in West Des Moines, Iowa with offices in Owings Mills, MD
- George Washington University, Washington, DC
- University of Michigan, Ann Arbor
- CareTrack Systems, Key West, FL
- Stepwise Systems, Austin, TX

# Welcome & Introductions

- TEP Participant Introductions
- Procedures for the day
- Format
- Amenities
- Phones – place on vibrate
- End at 4:00 p.m.
- Contact – STRIVE@IFMC.ORG

# STRIVE Goals

- Enhance efficiency and accuracy of the RUGs system
- Reflect changes in health care practices since implementation of SNF PPS
- Design payment to promote quality

# TEP Objectives

- Understand scope of STRIVE Project
- Obtain Stakeholder Input:
  - Project Goals
  - Critical Issues
  - Technical Issues

# Agenda

- ✓ Welcome & Introductions
- Study Design / Overview
  - TEP Discussion – Study Design
- Data Collection / Facility Recruitment
  - TEP Discussion –
    Data Collection / Facility Recruitment
- Lunch / Data Collection Demonstration
- Analysis & Sampling Plans
  - TEP Discussion – Analysis & Sampling Plans

# Agenda, continued

- Special Populations & Supplemental Data Items
  - TEP Discussion – Special Populations & Supplemental Data Items
- Observer Comment Period
- Adjourn

# Historical Background

- Omnibus Budget Reconciliation Act of 1987
  - Development of uniform assessment instrument, based on a minimum data set to improve facility care planning and resident outcomes
- Balanced Budget Act of 1997
  - SNF moves to PPS system in 1998, many states use the case-mix payment system for Medicaid reimbursement

# Historical Background

- The case mix system at the core of the Medicare SNF PPS consists of three components:
  - Staff time measures (STM)
  - Resident assessments
  - Cost calculations of resources
- Resource Utilization Groups
  - RUG-III
  - Each group represents a level of resource utilization and is quantified with a case mix index score
  - Links resource utilization to payment rates

# Historical Background

RUG-III classification system was designed by relating resident characteristics to wage-weighted staff time

- Information regarding a resident's characteristics was derived from the MDS resident assessment instrument

# Historical Background

- Nearly 50 percent of states use a version of the RUG classification system to pay for Medicaid nursing home care
- Both the Federal and state systems are based on staff time measurement data collected in 1990, 1995, and 1997

# Historical Background

- No national time study has taken place since 1997

# STRIVE

- On September 30, 2005, CMS awarded a contract to Iowa Foundation for Medical Care (IFMC) and its partners to conduct this study

# Scope of Work

- STRIVE project team will implement and manage CMS's multi-state STM study including the following tasks:
  - Establish TEP
  - Recruit nursing homes, state agencies, and volunteers to participate
  - Provide hardware, software, and training to obtain the data in a useable form
  - Coordinate data collection through pilot test and national time study
  - Analyze data

# Analytic Approaches

- Resource use for Medicare and Medicaid
- Resource use for special populations
  - e.g., ventilator
- Ancillary costs
  - e.g., drug costs
- Alternative items and measures
  - e.g., MDS 3.0, MDS-PAC
- Skilled service patterns
  - e.g., IV meds, therapy patterns
- Potential collaboration with other studies
  - DVA, Canada

# Sampling Approaches

- Large nationally representative sample (about 12,000 residents)
- Stratified random sample of facilities within state
- Medicare and special population
- Facility screening based on survey deficiencies and QI/QM measures

# Data Collection State / Facility Roles

Dave Oatway, R.N., M.P.H.
Kathy Langenberg, R.N.
Bob Burke, Ph. D.

# Goals of Data Collection

- Accurate resource use data

  Collect time data with most current and tested technology

  - Use normal staff levels and resident loads
  - Reflect current practices
- Accurate assessment data
  - Reflect current resident characteristics

# Data Collection

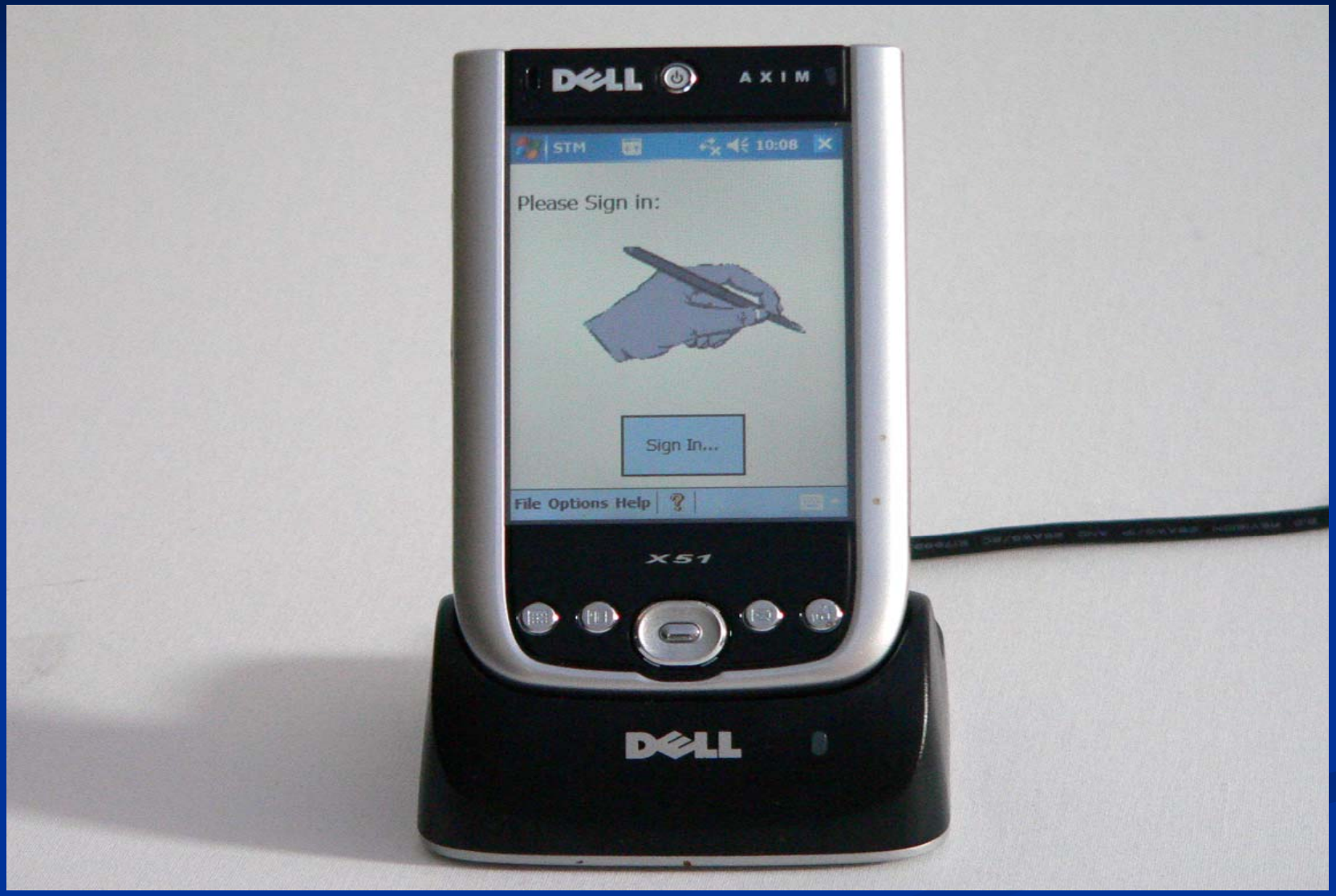
- Types of data to be collected
  - Time data from staff
  - Additional resources used for resident care
    - Drugs/Medications
    - Supplies
    - Services
  - Resident Characteristics
    - MDS 2.0
    - Supplemental items

# Privacy

- Resident level data not shared or available outside of the project
- Study conducted in compliance with HIPAA standards
- Staff data not shared with facility
- Data protected

# Time Data Collection

- Collect time from all direct care staff
  - PocketPC running the CareTrack Staff Time software
    - Paper backup available for technical problems
    - Individual and group times
- PocketPC time data collection is very easy to learn and use, and is reliable and accurate



# Resident Specific Time

- Resident Specific Time (RST)
  - Time staff members spend with or on behalf of a resident
  - Therapists identify the modality by selecting HCPCS code

# Non-Resident Specific Time

- Non-Resident Specific Time (NRST)
  - Time staff members spend supporting the delivery of care
    - Administrative duties
    - Cleaning
    - Training
    - Corporate activities

# Meals and Breaks

- Meals and Breaks
  - Time staff member's spend on personal meals and breaks

# Additional Resources Used to Care for Residents

- Identify and Document
  - Drugs/Medications
  - Supplies
  - Services

# Resident Assessment

- Complete/update hardcopy MDS 2.0 with an assessment reference date during the time study
- Collect supplemental assessment items on paper
- Send to IFMC for data entry

# Facility Characteristics

Demographics

Administration, ownership

- Names, types, sizes of nursing units
- Staffing levels

# Data Collection Roles

Dave Oatway, R.N., M.P.H.

# State Roles

- Designates state project lead
- Recruits facilities
- Recruits staff for on-site data collection and monitoring
- Trains staff
- Schedules facilities and staff
- Monitors data collection
- *Support provided by IFMC*

# Stakeholder Roles

Supports study goals

Encourages study participation

- Communicates issues and concerns
- Provides volunteers for data collection

# Facility Roles

- Participates in study
- Prepares staff for study
- Provides staff and resident rosters
- Collects staff time and resource data
- Collects assessment data
- Provides work space as needed

# IFMC Roles

- Overall STRIVE lead
- Supports State Recruitment
  - Trains state project staff
  - Provides sample facility list
  - Supplies recruitment materials and protocols
  - Maintains recruitment information
  - Assists in recruitment as needed
- Supports State Study
  - Supplies study materials and protocols
  - Supplies laptops and PocketPCs
  - Provides help line and study support

# Data Collection Summary

Data collection performed by states, with assistance provided by IFMC

- Fully trained volunteers create partnerships and keep the process transparent to the stakeholders

# Analysis Plan and Sampling Plan

Brant Fries, Ph.D.

David Malitz, Ph.D.

# Analytic Goals

- Recalibrate CMI for current RUG-III Systems
  - Use full sample (N=12,000)
  - 34, 44, 53 group systems
  - Possibly several CMIs: Medicare, Medicaid, DVA

# Analytic Approach

# Analytic Goals

- Test RUG-III modifications
  - Structure of RUG-III
    - e.g., "Rehab+Extensive"
    - e.g., "leafy-end splits"
  - Classification of special populations
    - e.g., ventilator/respirator
  - Effect of changing RUG-III criteria
    - e.g., use of known scales
    - e.g., IV medications before/after NH admission
    - e.g., additional qualifiers
  - Incorporation of new assessment items

# Analytic Goals

- Test RUG-III modifications (cont.)
  - Update RUG-III service-based measures
    - e.g., physician orders/visits
  - Effect of assessment schedule
  - Effect of additional cost measures

# Analytic Goals

Other issues:

Reliability of any new assessment items

- Skilled service patterns

- Potential collaboration with DVA
- Potential collaboration with Cana
study

# Sampling Design

Stratified, random sample of facilities within volunteer states

Stratification will insure adequate representation

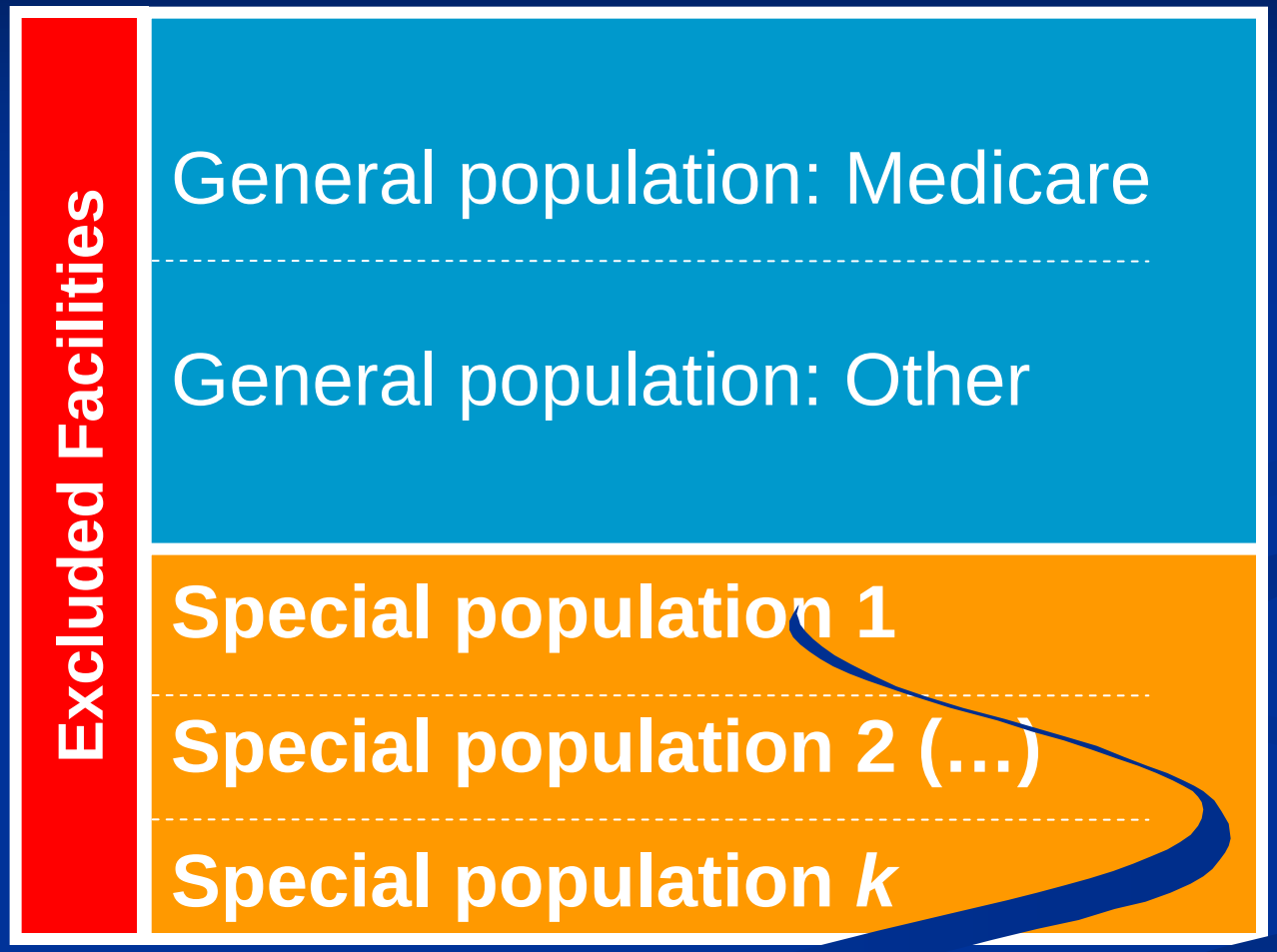
- Medicare residents
- Special populations
- Hospital-based facilities

- Facility exclusions
  - Poor quality
  - Unable to participate
    - e.g., emergencies, legal action

# Sampling Plan

- Sample size
  - Target: 15 states, 240 facilities, 12,000 residents
  - Selected facilities will include all units (except large facilities)

# Stratification of Facilities



# Sampling Methodology

***Step 1.*** Data-based exclusions using administrative data

- OSCAR deficiencies
- Quality Indicators (QIs) and Quality Measures (QMs)

- ***Step 2.*** Select sample from remaining facilities (over-sample)
- ***Step 3.*** Stakeholder exclusions from list of sampled facilities

# Facility Exclusions

- Development of data-based exclusions
  - Discussions with QI/QM experts
    - Measures to include
    - Combining measures
  - CMS algorithm for scoring survey and complaint deficiency history
- Stakeholder exclusions

# Analysis Plan and Sampling Plan

TEP Discussion

# Special Populations and Supplemental Data Items

Bob Godbout, Ph.D.

Brant Fries, Ph.D.

# Special Populations

- Criteria for inclusion on list
  - Group is of high interest
    - Practice patterns have changed
    - Strengthens model
  - Group is rare (prevalence <0.5%)
- Special Population Matrix

# Ancillary Cost Measures

- Some measures collected directly, some as part of assessment
- Bundled vs. unbundled service
- Examples
  - IV drugs/ IV medications
  - Hyperbaric oxygen
  - Barium swallows

# Issues in Collecting Drug Data

- Bundled only for Medicare Part A stays
- With NDC codes, can attach price/cost per dose (need advice)
- HIPAA & privacy concerns
- Costly to collect

# Issues in Collecting Drug Data

Collect what is:

- Ordered?
- Dispensed?
- Taken?

- Data collection options:
  - Medicare / Medicaid bills
  - High cost drugs
  - All drugs
  - All drugs for a sample of residents

# Issues in Collecting Drug Data

- Collection Approach: Medicare bills
  - Identify bills related to drugs, link to other cost data
  - Pros:
    - Does not require primary data collection
  - Cons:
    - Drugs not identified
    - Only possible for Medicare residents
    - Difficult to identify appropriate bills (time frame)
    - Delay in getting complete bills

# Issues in Collecting Drug Data

- Collection Approach: High cost drugs
  - Locate database with daily cost by drug, pick drugs in top % (e.g., 2%)
  - Facility or STRIVE project staff code drug/frequency/dose received by resident
  - Pros:
    - Focus on drugs most likely at issue
    - Reduces data collection effort (few residents receive)
  - Cons:
    - List of high-daily-cost drugs could be very long
    - Need to find database to identify high-daily-cost drugs
    - High-daily-cost drugs may be used infrequent High cost drugs change over time
    - Time consuming to check list

# Issues in Collecting Drug Data

- Collection Approach: All drugs for Medicare A
  - Alternative approaches:
    - Staff enter drug data directly into database (with lookup)
    - Printout sent to IFMC for entry
    - Drug database sent from facility/pharmacy to IFMC
  - Need NDC codes
  - Pros:
    - Have all drugs, can do any analysis needed
  - Cons:
    - Each alternative data collection/coding method is time-consuming

# Issues in Collecting Drug Data

- Collection Approach: All drugs for sample of Medicare A residents
  - Collect in facilities where data are available
  - Methods similar to "All drugs"
  - Pros:
    - Same as before
    - Less expensive, as only doing for part of sample
  - Cons:
    - Same as before
    - Facilities with this capability may create a biased sample
    - May not have sufficient sample size for some analyses

# Other Cost Data Issues

- Collection of some supplies/services straightforward
  - Collect selected items as part of assessment (include volume)
- Similar collection issues for some other high-cost supplies
- What is *daily* cost for a supply with no specified time period
  - e.g., pressure-relieving bed

# Supplemental Assessment Items

- Sources:
  - Refine MDS 2.0 items
    - e.g., IV medications
  - Other MDS instruments
    - e.g., MDS V3.0, MDS-PAC
  - Other assessment systems

# Supplemental Assessment Items

- Criteria for choosing
  - Expected influence on case mix
  - Cannot be “gamed”
  - Can be audited
  - Quality of item (specification, training material)
  - Difficulty to obtain data
  - Existing reliability study

# Reliability Studies

- New assessment items
  - Standard inter-rater reliability approach
  - Limited to *new* untested items
- Reliability of ancillary cost measures

# Skilled Service Patterns

- Services before or after SNF admission
  - e.g., IV medications, suctioning
- Therapy patterns and RUG break points
- Therapy modalities

# Special Populations and Supplemental Data Items

TEP Discussion

# STRIVE TEP - Next Steps

- TEP slides posted on CMS Website
  - www.cms.hhs.gov/providers/snfpps (available later this month)
- TEP comments due by 12/22/05
  - Strive@ifmc.org
- Participate in follow-up teleconferences

# Open Discussion - Observers

Please take a position in line near the front table

- Please limit questions and comments to 2 minutes

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# Thank you for your participation & attendance