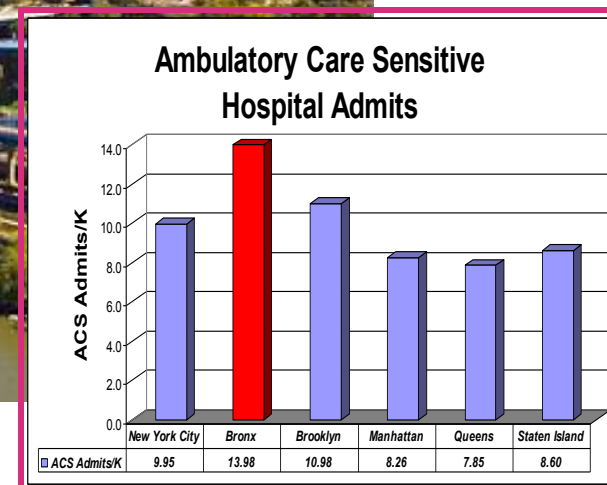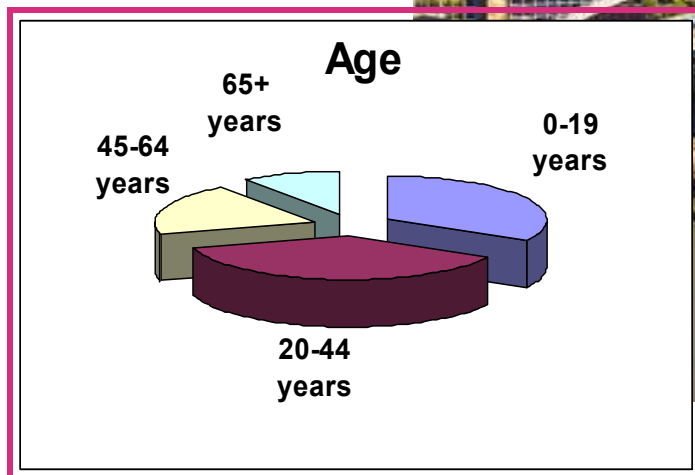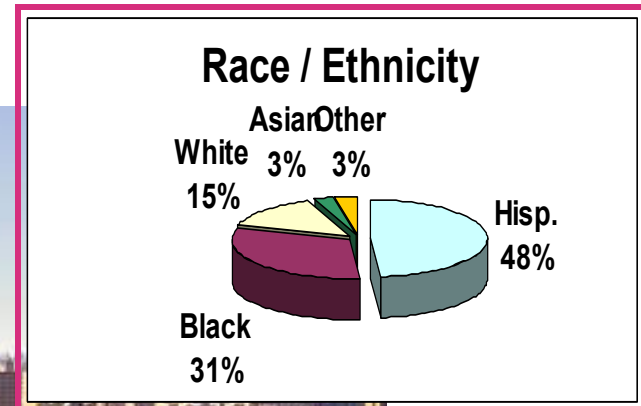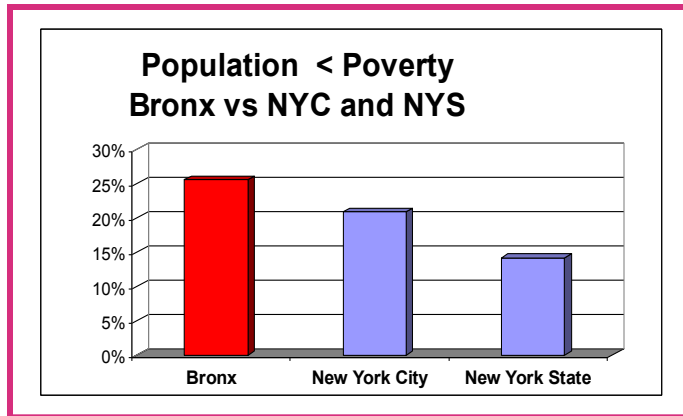# Montefiore

Aligning Health IT with Delivery System Reform: Technology Gaps in Coordinating Patient Care

Peggi M. Czinger MPH
Director, Network Care Management COE
The Care Management Company of Montefiore

The Bronx:
Poor, Minority, Young, Heavy Disease Burden

Population < Poverty
Bronx vs NYC and NYS

(Bar chart: Bronx ~26%, New York City ~21%, New York State ~14%; y-axis 0%–30%)

Race / Ethnicity

(Pie chart)
- White 15%
- Asian 3%
- Other 3%
- Hisp. 48%
- Black 31%

Age

(Pie chart)
- 65+ years
- 45-64 years
- 0-19 years
- 20-44 years

Ambulatory Care Sensitive Hospital Admits

(Bar chart, y-axis ACS Admits/K, 0.0–14.0)

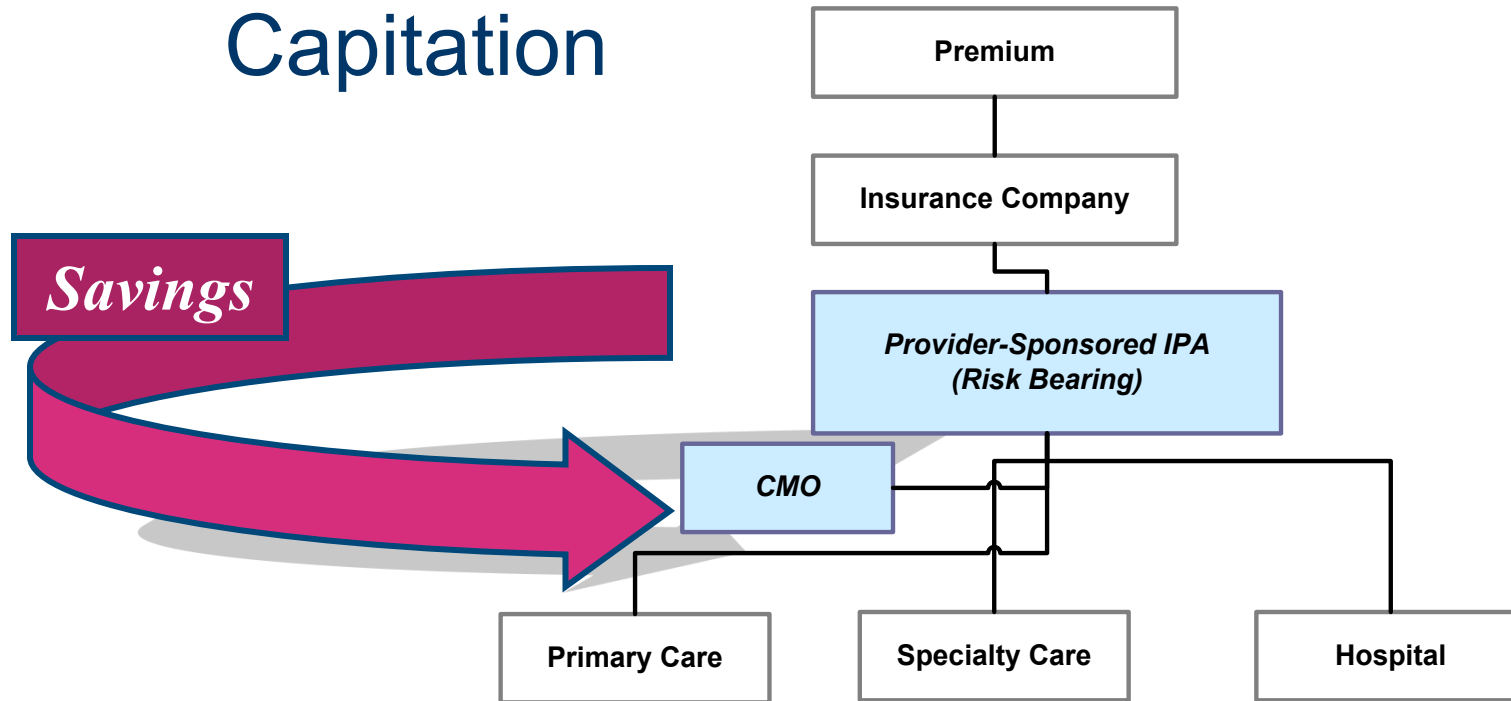|	New York City	Bronx	Brooklyn	Manhattan	Queens	Staten Island
ACS Admits/K	9.95	13.98	10.98	8.26	7.85	8.60

Montefiore

Montefiore
Integrated Delivery System

- Inpatient Care – Over 93,000 admissions including 7,000 births
  - Three general hospitals
  - Children's hospital
  - 1,500 beds
- Ambulatory Care – 2.5 million visits/year
  - 23 community primary care centers (>1 million visits)
  - 16 school health centers (52,000 visits)
  - 7 mobile healthcare units (11,000 visits)
  - 3 major specialty care centers (> 1 million visits)
  - 2 special care units (Child Advocacy Center; Lead Poisoning Prevention)
  - 4 emergency departments (301,000 emergency visits)
- Post-acute care
  - Home care agency- 500,000 visits
  - Rehabilitation
- Geographic concentration
  - 90% of Montefiore's patients from Bronx or Westchester

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Experience with Capitation or Prepayment

Montefiore

Risk Transfer Arrangements

Capitation

```
                                    ┌──────────────────┐
                                    │     Premium      │
                                    └────────┬─────────┘
                                             │
                                    ┌────────┴─────────┐
                                    │ Insurance Company│
                                    └────────┬─────────┘
                                             │
                           ┌─────────────────┴──────────────┐
                           │   Provider-Sponsored IPA       │
         Savings ───────►  │       (Risk Bearing)           │
                           └────────────────────────────────┘
                     ┌──────────┐
                     │   CMO    │
                     └──────────┘
   ┌──────────────┐      ┌──────────────┐      ┌──────────────┐
   │ Primary Care │      │ Specialty Care│     │   Hospital   │
   └──────────────┘      └──────────────┘      └──────────────┘
```

- Capitation Payments to IPA
- Savings ──► Delivery System

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Montefiore IPA and CMO

Montefiore IPA

- Formed in 1995
- MD/ Hospital Partnership
- Contracts with managed care organizations to accept and manage risk
- Over 1,900 physician members
  - 500 PCPs
  - 1,400 Specialists
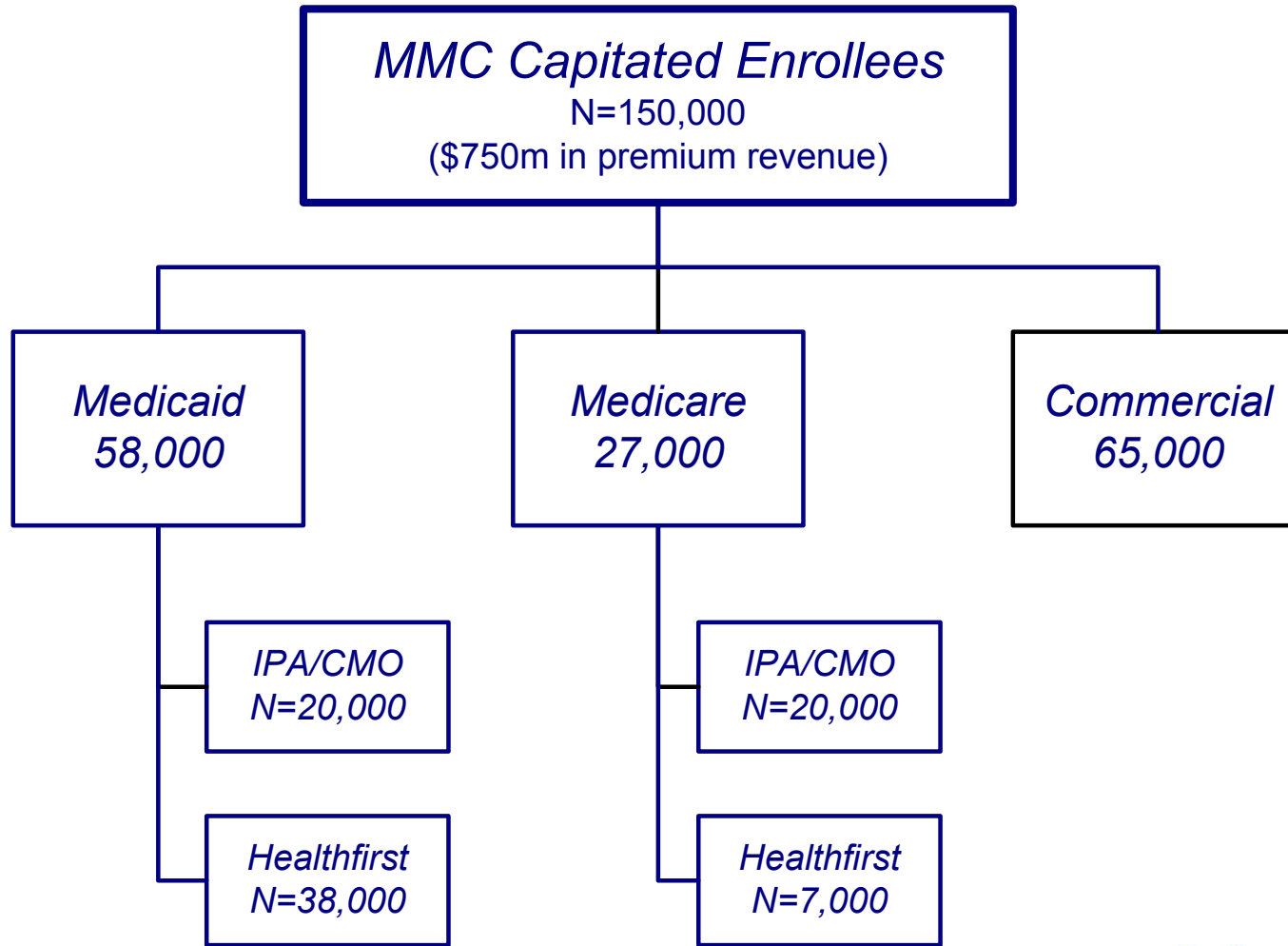
CMO Care Management Company

- Established in 1996
- Wholly-owned subsidiary of Montefiore Medical Center
- Performs care management delegated by health plans as well as other administrative functions, e.g. claims payment, credentialing
- Licensed UR agent and certified claims adjustors

Montefiore

Managing Care
MMC's Capitation Contracts Serve Our Community

MMC Capitated Enrollees
N=150,000
($750m in premium revenue)

Medicaid
58,000

Medicare
27,000

Commercial
65,000

IPA/CMO
N=20,000

Healthfirst
N=38,000

IPA/CMO
N=20,000

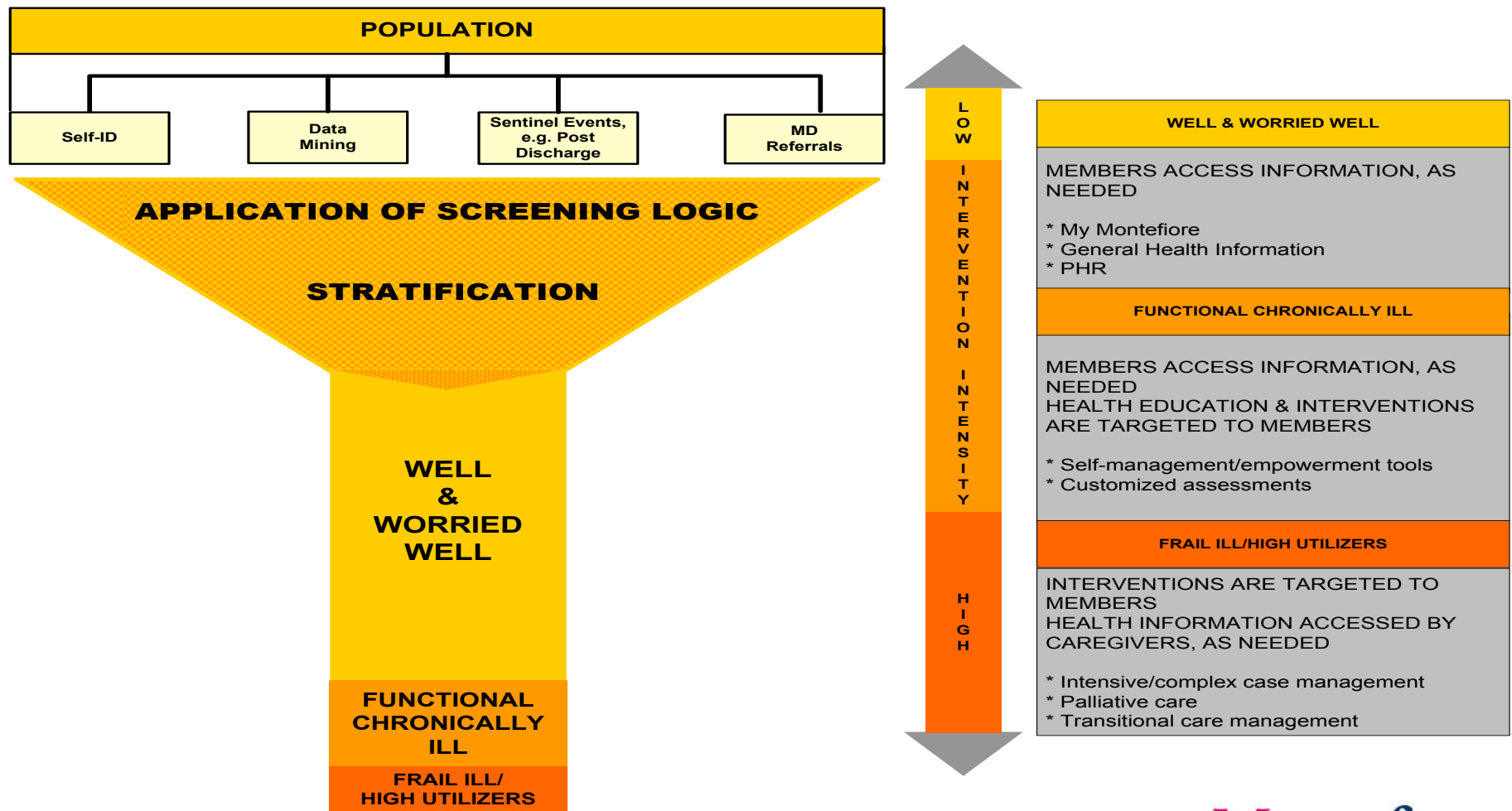Healthfirst
N=7,000

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Opportunities for Montefiore
Under Health Care Reform

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Opportunity: The Bronx is an excellent location to test a model of innovative population health management

- Per capita medical expenditures 20% higher than US
- 80% of expense paid by Medicare and Medicaid
- 8% of population accounts for 50% of expense
- 33% of population below poverty level
- High incidence of chronic illness
- Partnerships with Einstein and Bronx RHIO
- Willingness of payers and providers to collaborate

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Population Health Management Strategy

POPULATION

| Self-ID | Data Mining | Sentinel Events, e.g. Post Discharge | MD Referrals |

APPLICATION OF SCREENING LOGIC

STRATIFICATION

WELL & WORRIED WELL

FUNCTIONAL CHRONICALLY ILL

FRAIL ILL/ HIGH UTILIZERS

LOW INTERVENTION INTENSITY HIGH

WELL & WORRIED WELL

MEMBERS ACCESS INFORMATION, AS NEEDED

* My Montefiore
* General Health Information
* PHR

FUNCTIONAL CHRONICALLY ILL

MEMBERS ACCESS INFORMATION, AS NEEDED
HEALTH EDUCATION & INTERVENTIONS ARE TARGETED TO MEMBERS

* Self-management/empowerment tools
* Customized assessments

FRAIL ILL/HIGH UTILIZERS

INTERVENTIONS ARE TARGETED TO MEMBERS
HEALTH INFORMATION ACCESSED BY CAREGIVERS, AS NEEDED

* Intensive/complex case management
* Palliative care
* Transitional care management

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CMO Care Coordination

Health IT Vision

The Health IT Marketplace for ACOs: *Current State*

- Primary focus of Health IT for ACOs
  - Data communication and integration among physician offices and hospitals
  - Clinical decision support tools for chronic diseases, e.g. Heart Failure and Diabetes
    - Patient Registries
    - Predictive Modeling
    - Embedded clinical guidelines

The Health IT Marketplace for ACOs: *What's Missing?*

- Psychosocial issues are often the underlying cause of poor health outcomes or preventable utilization in the chronically ill and/or elderly

- Coordinating the care of the chronically ill in vulnerable populations must extend beyond the walls of physician offices and hospitals/other institutions and into the community

- Practicing physicians, even within a PCMH, can find coordinating all relevant aspects of care to be onerous

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The Health IT Marketplace for ACOs:
What's Needed

- Care coordination is time and resource intensive – often resulting in poor execution

- Coordination activities must be linked electronically so that providers can work in tandem with Care Managers and/or community agencies to support the complex needs of these populations

- Care coordination processes and systems must incorporate patient/ caregiver input and engage them in care planning

- It must seamlessly allow for both *centralized* care coordination, as well as *locally* at provider sites or community agencies, involving patients and caregivers - *servicing the population where they live*

- Technology is a key mechanism whereby health care reform mandates can be administered more efficiently/effectively with ROI
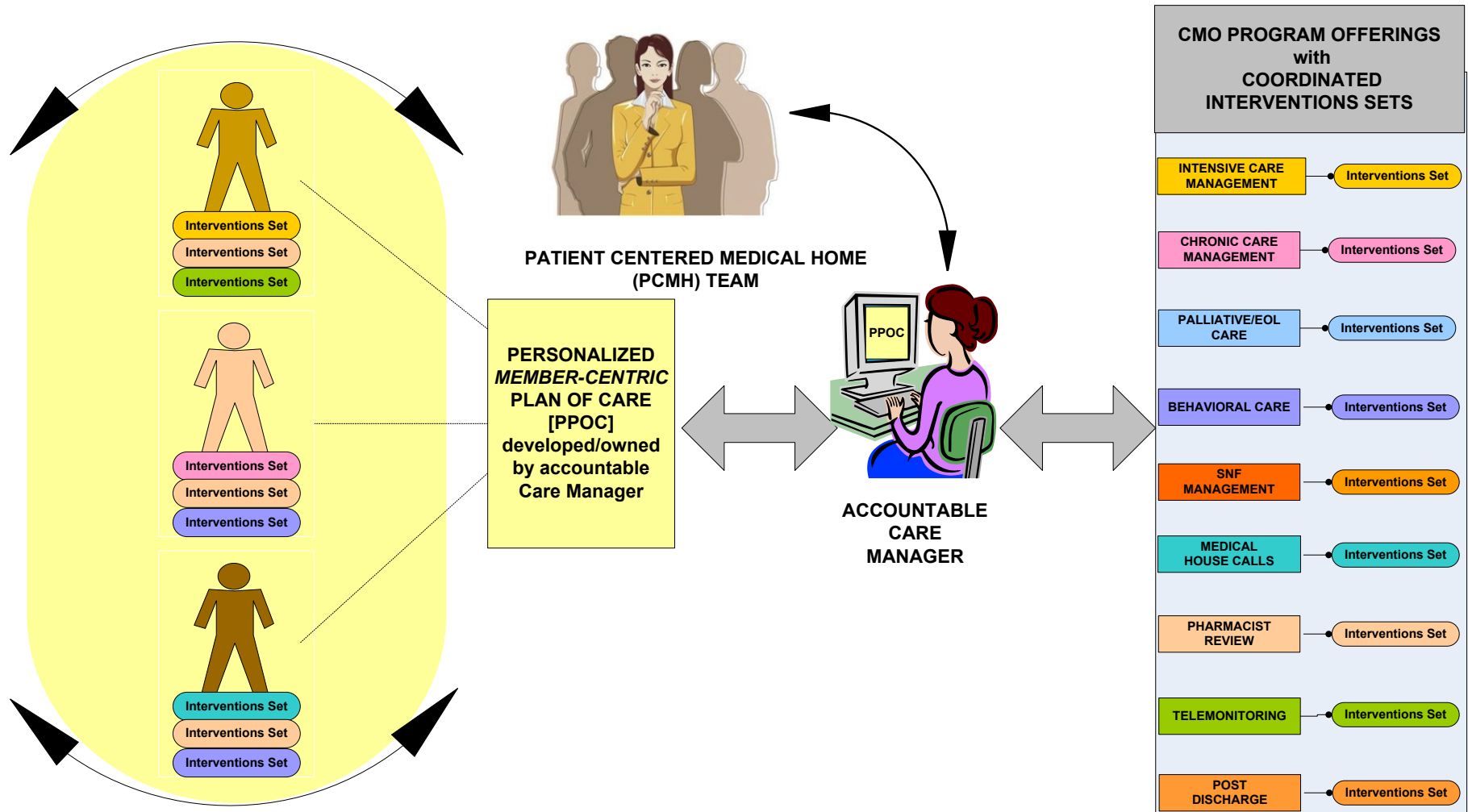
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Care Guidance_{SM}:

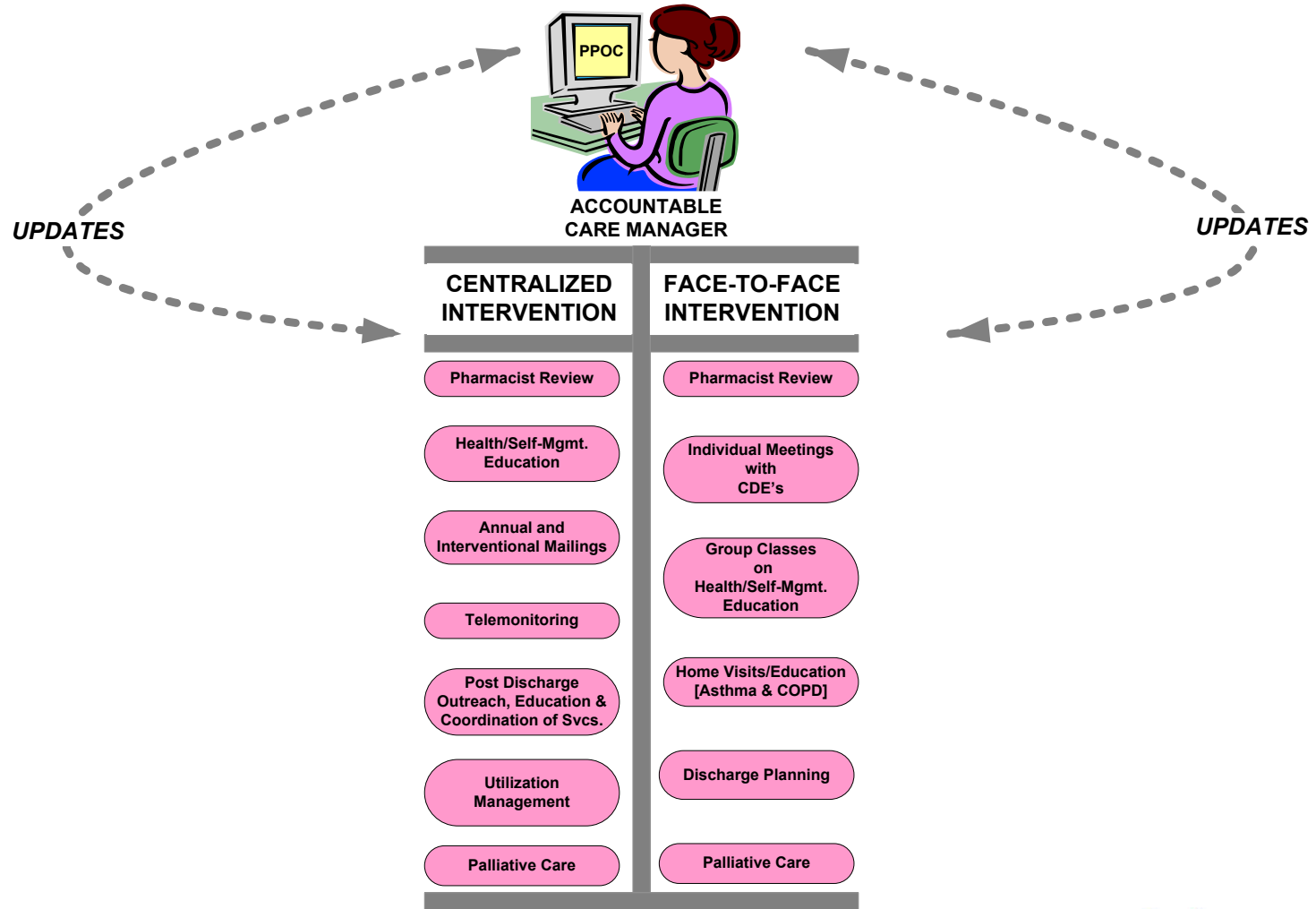# CMO Care Coordination Model

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Unique Care Management Model:
Care Guidance_{SM}

- Structured member data, collected through assessment tools, generate predetermined Problem-sets by Domains

- Data architecture links Problems to appropriate/actionable Interventions options

  – Provides decision support to Care Managers

  – Personalized plans of care (*PPOC's*) are developed for each member based on Problems and selected Interventions

  – Interventions tasks can be routed to appropriate skill level, conserving costly clinical resources

  – Interventions are monitored to ensure completion, as well as quality

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Care Guidance Interventions

PATIENT CENTERED MEDICAL HOME
(PCMH) TEAM

PERSONALIZED
MEMBER-CENTRIC
PLAN OF CARE
[PPOC]
developed/owned
by accountable
Care Manager

Interventions Set
Interventions Set
Interventions Set

Interventions Set
Interventions Set
Interventions Set

Interventions Set
Interventions Set
Interventions Set

PPOC

ACCOUNTABLE
CARE
MANAGER

CMO PROGRAM OFFERINGS
with
COORDINATED
INTERVENTIONS SETS

INTENSIVE CARE MANAGEMENT	Interventions Set
CHRONIC CARE MANAGEMENT	Interventions Set
PALLIATIVE/EOL CARE	Interventions Set
BEHAVIORAL CARE	Interventions Set
SNF MANAGEMENT	Interventions Set
MEDICAL HOUSE CALLS	Interventions Set
PHARMACIST REVIEW	Interventions Set
TELEMONITORING	Interventions Set
POST DISCHARGE	Interventions Set

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Care Guidance Delivery

PPOC

ACCOUNTABLE CARE MANAGER

UPDATES   *UPDATES*

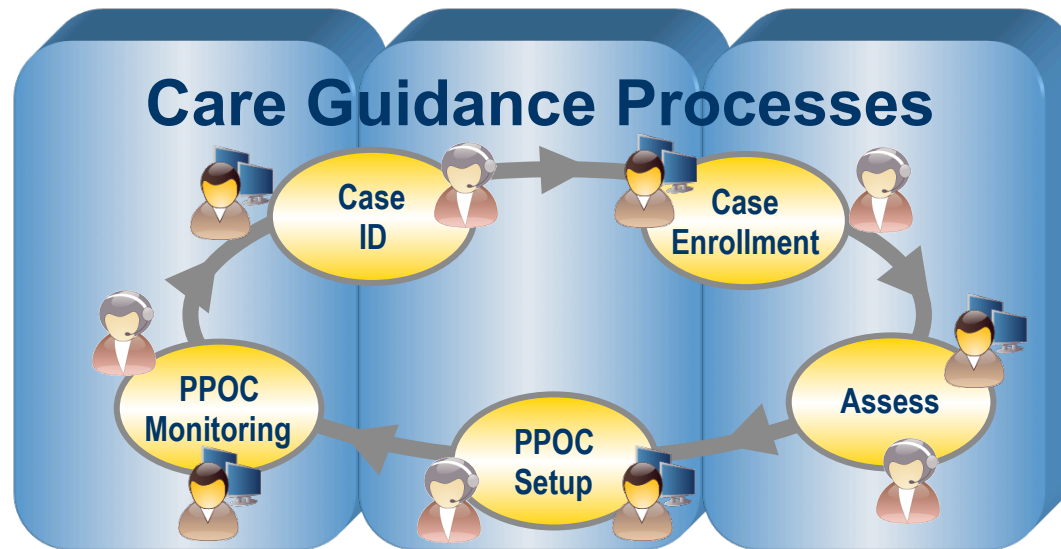| CENTRALIZED INTERVENTION	FACE-TO-FACE INTERVENTION
Pharmacist Review	Pharmacist Review
Health/Self-Mgmt. Education	Individual Meetings with CDE's
Annual and Interventional Mailings	Group Classes on Health/Self-Mgmt. Education
Telemonitoring	Home Visits/Education [Asthma & COPD]
Post Discharge Outreach, Education & Coordination of Svcs.	Discharge Planning
Utilization Management	Palliative Care
Palliative Care	

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ACO Expansion Challenges

- The existing health technology infrastructure within the Care Management industry has resulted in
  - Business processes that are
    - Redundant
    - Siloed
    - Lacking standardization and structured data
    - Highly manual – little automation of workflow, and
    - Requires that staff access multiple user interfaces
  - Systems that
    - Are disparate and lacking data integration
    - Have multiple access points
    - Do not support standardized inter- and/or cross-organization workflows
    - Do not easily provide for patient/caregiver engagement

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CMO Vision:
Technology Infrastructure

Care Guidance Processes

- Case ID
- Case Enrollment
- Assess
- PPOC Setup
- PPOC Monitoring

- Automated workflow management & monitoring
- Centralized process & rules technology platform
- Cross-application automation
- User interface and data integration

Automation Layer

Business Process Management System (BPMS)

- Model
- Execute
- Task Creation
- Task Assignment/ Routing
- Task Monitoring
- Task Follow-Up
- Monitor
- Optimize

Rules Management

KEY:

CMS - Care Management System

CIS – Clinical Information System

EPF – Electronic Patient Folder

- CIS
- CMS
- Claims
- Home Care
- CMS
- Post Acute
- Tele-health
- CMS
- EMR
- EPF

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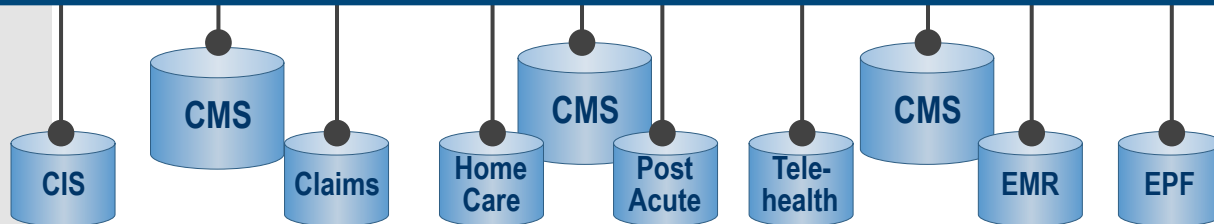
Health Care Industrialization

- Care Management systems must adopt BPM technology used in other business channels to "*industrialize*" the delivery of care across integrated health care networks, so that

  – High volumes of tasks to support patients and providers can be processed efficiently within networks, as well as routed to external agencies

  – Disparate systems operate with a centralized technology platform

  – Where applicable, patients can participate/engage in their care planning process

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Bronx ACO

Care Coordination enabled with BPMS

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Health IT – The ACO "Glue"

A core strategy to manage and measure population health and improve care coordination by supplying actionable data for managing patient care