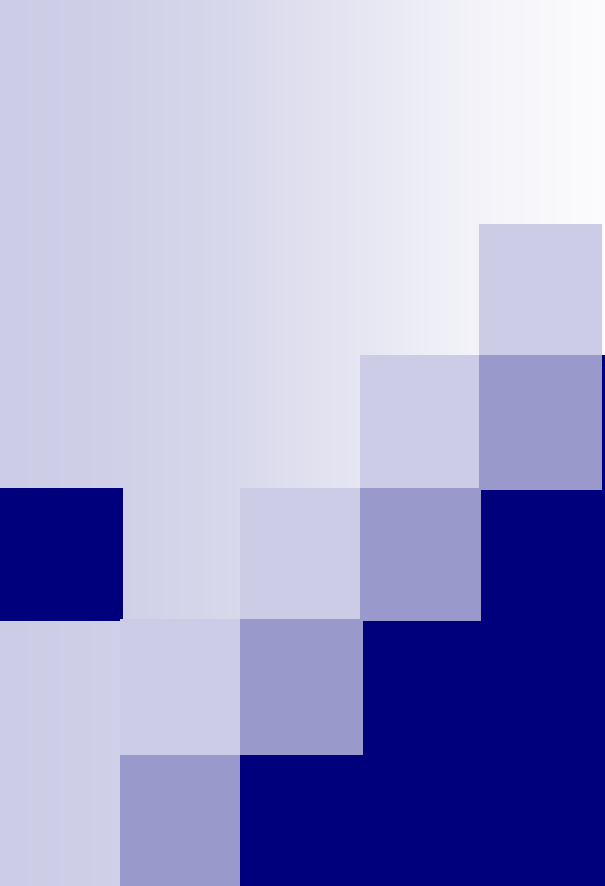


Bring It
Down



Bring It Down: GMC

Epi 245 Final Presentation
Spring 2014

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May 29, 2014

Phase 5
**Administrative &
Policy Diagnosis**

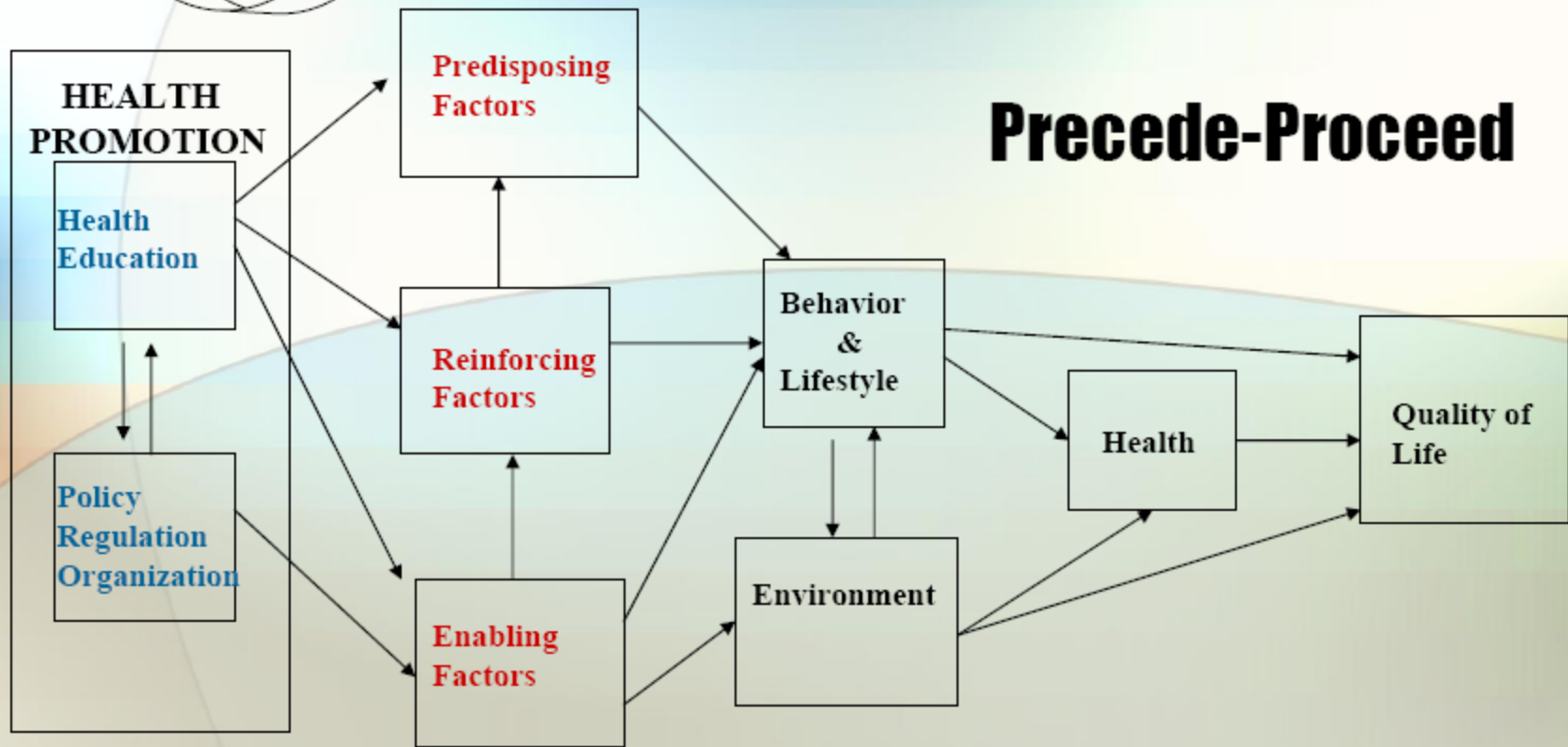
Phase 4
**Educational &
Organizational
Diagnosis**

Phase 3
**Behavioral &
Environmental
Diagnosis**

Phase 2
**Epidemiological
Diagnosis**

Phase 1
**Social
Diagnosis**

Precede-Proceed



Phase 6
Implementation

Phase 7
**Process
Evaluation**

Phase 8
**Impact
Evaluation**

Phase 9
**Outcome
Evaluation**

1. Social Diagnosis

■ Health outcome: Hypertension Control in GMC Patients

Gap - National average for uncontrolled HTN is 50%. GMC HTN control rate is lower than the national average and is around 45%. Kaiser nearly doubled their rate of BP control in adult patients with diagnosed HTN from 44% to 84%.

Community

GMC Clinicians – doctors, nurse practitioners, nurses, MEAs, pharmacists

GMC patients - advisory board representatives, and patients

Community engagement Activities

Stakeholders' Meeting: Clinic Director, Nurse Manager, Pharmacists, and other key stakeholders

Focus Groups: conduct clinician focus groups to adapt HTN control protocol

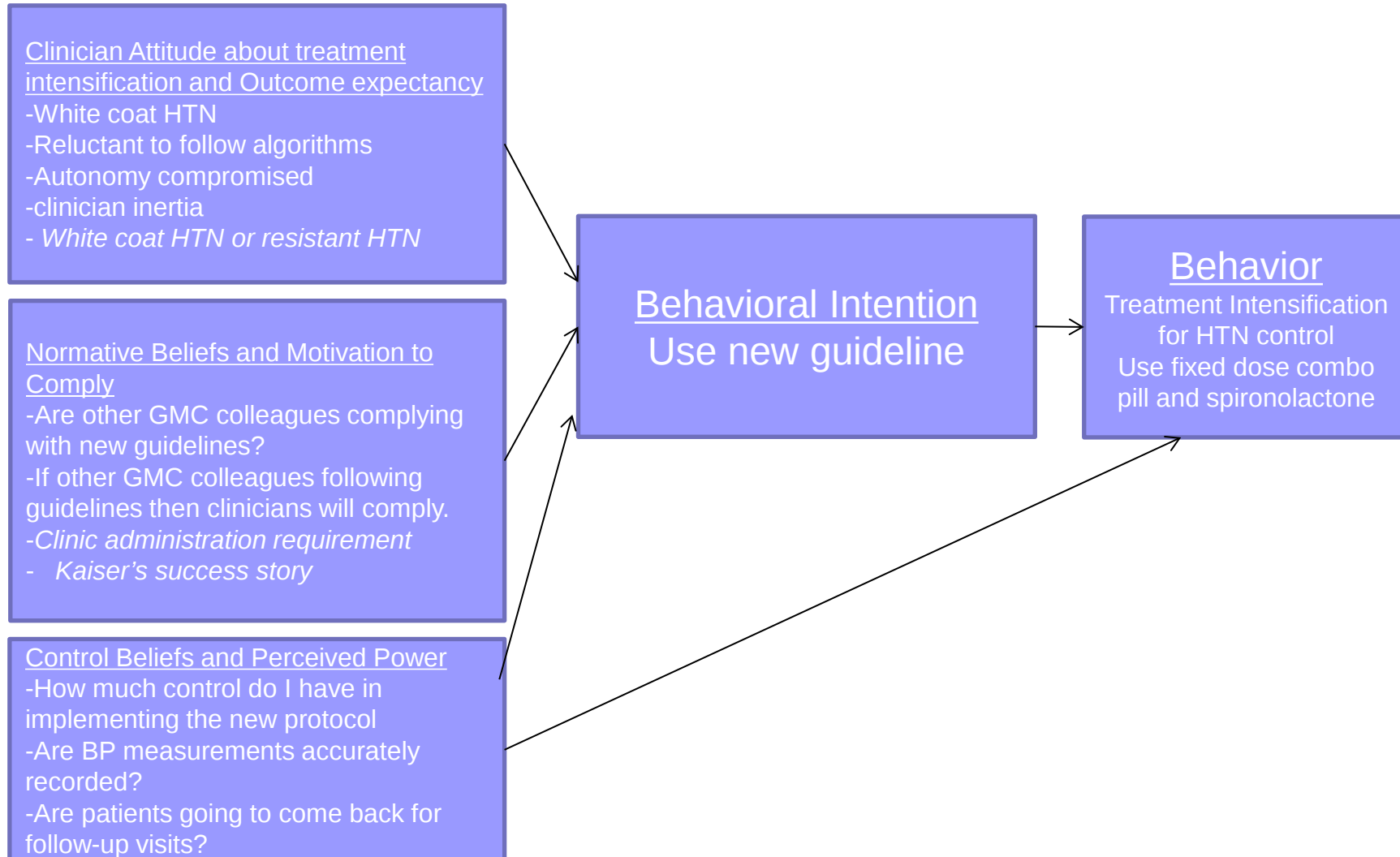
2. Epidemiological Diagnosis

I propose to improve hypertension control in GMC through a program that improves clinician likelihood of treatment intensification for HTN control in GMC patients.

- Nationwide BP control rates are at 50%. In GMC it ranges between 45 – 47%.
 - We know that uncontrolled HTN leads to higher risk for CVD
 - According JNC 8 guidelines blood pressure goals for the general population is <140/90 mmHg and <150/90 mmHg for patients 60 + years old and without DM, CKD, and CVD.
- Treatment intensification for HTN control is a priority for GMC clinicians.

3. Behavioral and Environmental Diagnosis

■ Theory of Planned Behavior





3. Behavioral and Environmental Diagnosis cont'd

- What organizational/environmental factors influence process/care gap?
 - Lack of registry of hypertensive patients in GMC
 - Low awareness of new evidence and guidelines among clinicians
 - Multiple follow-up visits challenging for patients and clinic (need more staff and flexible hours)

3. Behavioral Decision Matrix

	More Important	Less Important
More Changeable	Prescribing behavior - Training for GMC clinicians on new algorithm Creating a HTN patients registry	Provider role in increasing patient medication adherence Patient education on lifestyle modification
Less Changeable	Follow-up visits by patients	Active case finding of hypertensive patients

4. Educational and Organizational Diagnosis

■ Predisposing Factors contributing to behavior change target(s)...

Know

- Too much uncontrolled HTN nationally
- GMC HTN control rates below national average of 50%
- Kaiser has been highly successful with 84% control rate

Belief/Value

- Titrate up first before adding a second pill
- Combo pills not available in the GMC formulary
- Kaiser's success is due to active case finding from their registry

Intention

- To use algorithm for treatment intensification
- To promote fixed dose combination meds as an effective treatment intensification method
- Use spironolactone or labetalol for resistant HTN

4. Educational and Organizational Diagnosis (cont'd)

■ Enabling Factors...

□ Be able to do (skills)

- Algorithm will lead to task shifting
- Reduce burden on clinicians
- Standardized care for general population

□ Access To

- Decision Tool (algorithm)
- Additional nursing staff for monitoring or standardized protocol for nurse visits with standardized clinician instructions for nurses
- Updated HTN registry to track progress

□ Access Removed

- Lack of fixed dose combo pills in the GMC formulary
- Incomplete registry

4. Educational and Organizational Diagnosis (cont'd)

■ Reinforcing Factors...

□ Reminded

- Prompts on EHR
- Scheduled nurse visits for blood pressure checks
- Regular check-in meetings with Clinic leadership on implementation

Positive Reinforcement

- Updated HTN registry tracking progress
- Periodic performance reports (monthly/quarterly) on BP control rate and appropriate medications– clinic wide and individual clinicians
- “Positive Deviants” – to share secrets of their success
- Recognition from Clinic Director for goal attainment

Negative Reinforcement

- BP control rates for each clinician's patient panel posted on clinic notice board
- Clinicians get penalized for poor control rates (pay for performance policies)

Social Support

- Team meetings (with focus on HTN control, feedback, and sharing best practices)
- Fellow colleagues

Phase 4: PER Factor Decision Matrix

	More Important	Less Important
More Changeable	Awareness of new evidence and guidelines for HTN control Promote use of fixed combination pill for HTN control Use spironolactone/labetalol for resistant HTN	Belief that Kaiser was successful in controlling HTN through active case finding
Less Changeable	Active case finding for hypertensive patient no-shows Attitude towards treatment protocols	Alerts on EHRs

5. Administrative and Policy Diagnosis

■ Resources

- HTN patients' registry
- Algorithm
- Support from GMC leadership

■ Admin/Organizational Concerns addressed

- Lack of buy-in from all key stakeholders especially Attendings
- Clinician inertia with treatment intensification and use of algorithm
- Lack of availability of fixed dose combination pills in formulary
- Increased burden on nurses
- Patients unable to come in for multiple follow-up visits

6. Implementation

- Inputs/Activities
 - Predisposing - Pre-clinic conferences on new algorithm for GMC clinicians; official rollout of new algorithm by clinic leadership
 - Enabling - Posters available in exam rooms; drugs on protocol available in formulary; updated registry of hypertensive patients
 - Reinforcing - order sets available; “positive deviants” to share secrets of their success; periodic performance reports; alerts on EHR
- Timetable - Pilot in GMC in mid-June and rollout to SF HN in the Fall.
- PDSA Plan - Over 12 months – June 2014 – May 2015

Process Evaluation

■ Defining treatment/intervention fidelity?

- *Treatment Intensification for HTN control in GMC patients*

Formative Evaluation

- Focus groups with GMC Attendings to adapt Kaiser HTN control protocol
- Review of available medications in GMC formulary
- Base-line GMC blood pressure control rates

Process Indicators	Means of Verification
# of pre-clinic educational conferences for GMC clinicians and nurses conducted	Completed participant sign-in sheets
Ensure fixed dose combination pills are available in the formulary	List of HTN meds in formulary and protocol meds added to formulary
Include HTN order sets in eCW	Order sets included and how often they were opened
Post algorithm around clinic and distribute laminated pocket versions	Algorithm distributed and provider survey on how often they used algorithm
Include algorithm under Treatment and Referrals in CHN website	Algorithm posted and providers are accessing

Process Evaluation cont'd

- What intermediate outcomes will you measure to ensure your intervention activities are having their intended effects?
- Protocol uses team based approach and quick titration to reach BP control goals.
- **Intermediate outcomes:**
 - Are follow-up nurse visits being scheduled and if providers are providing instructions for to advance or titrate as per protocol?
 - Time in between intensification, time to maximal dose, or time to BP control as one of the goals is to shorten the time for titration versus usual care taking months or longer.
 - Knowledge, Attitude, and Behavior survey of providers to assess how well the algorithm improved their knowledge, attitudes, skills, and behavior for treatment intensification.



Outcome/Impact Evaluation

- Unit of Allocation: Clinic
- Unit of Analysis: Patients with uncontrolled HTN
- Study Design - Pre and Post or ITS with 3 measures prior and 3 measurements post intervention for pilot study in GMC. Stepped wedge trial design for rollout to SF HN so each of the clinics within the network will get the intervention in a staggered manner
- Effect Size Detection Desired: .06 (10% reduction in systolic BP to accommodate the limited sample size)
- Sample Size: 340 patients and 13 clusters