



Data Infrastructure for Care Coordination and Predictive Modeling

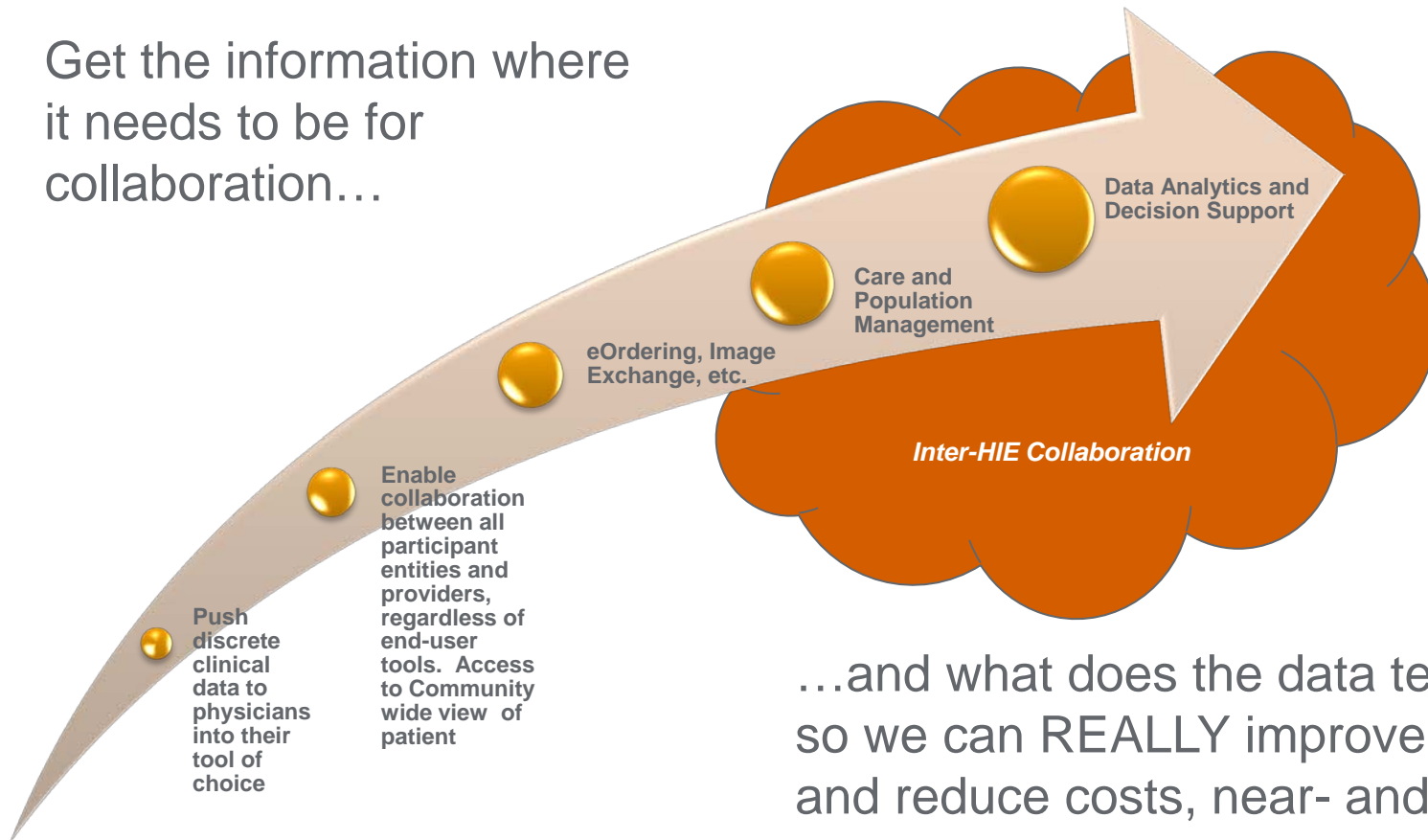
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Key Points

- Effective use of data is a key to achieving greater value for the health care dollar in Maryland.
- Establishing an appropriate information infrastructure will require collaboration and a shared vision of how information will be used.
- It will also take time
 - Establish priorities
 - Understand your roadmap
 - Sustain your investment
- Care coordination and predictive modeling require different information delivered at different points in time
- Active clinical engagement will be critical

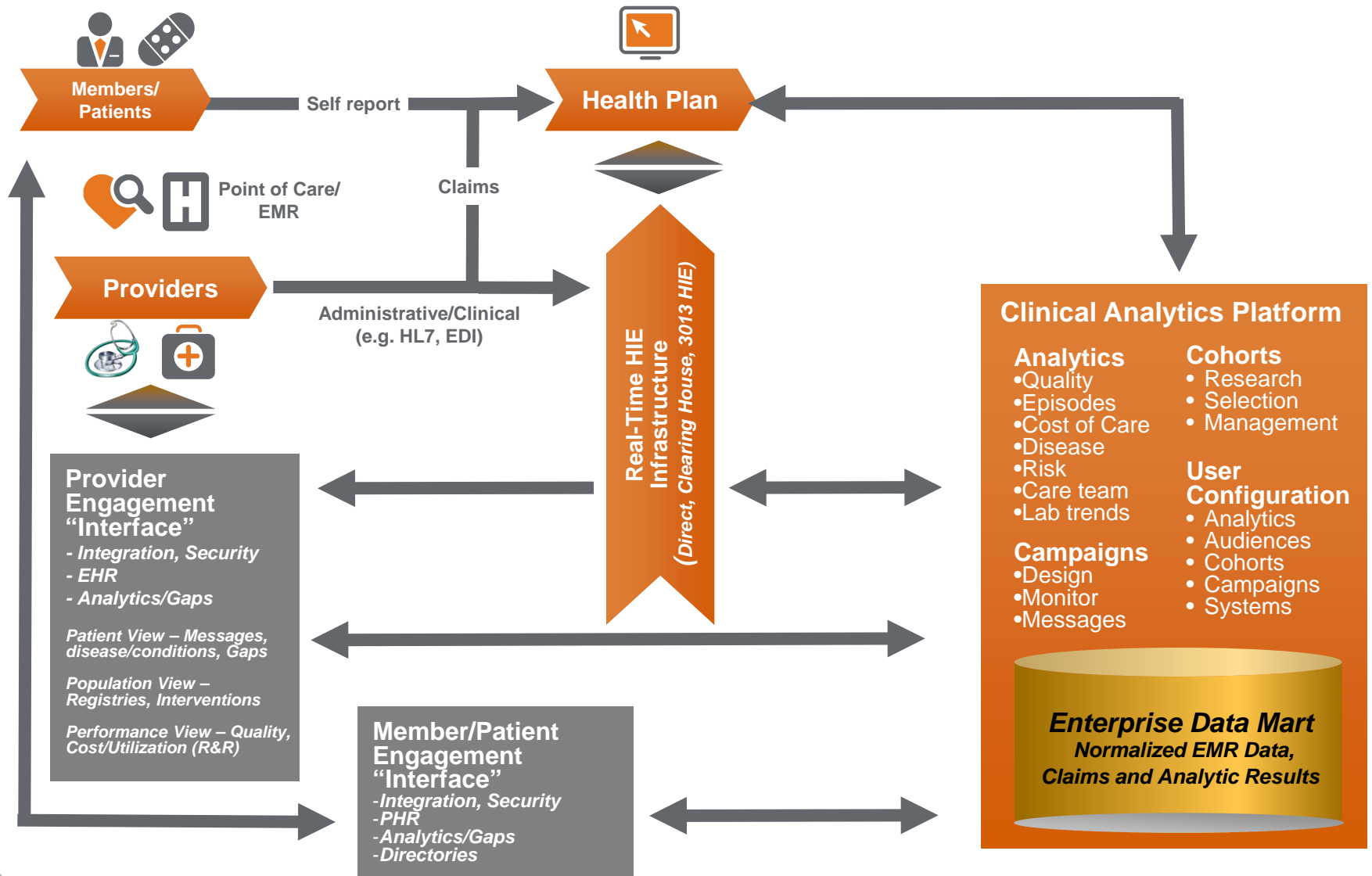
Using Data Effectively to Enhance Value

Get the information where it needs to be for collaboration...



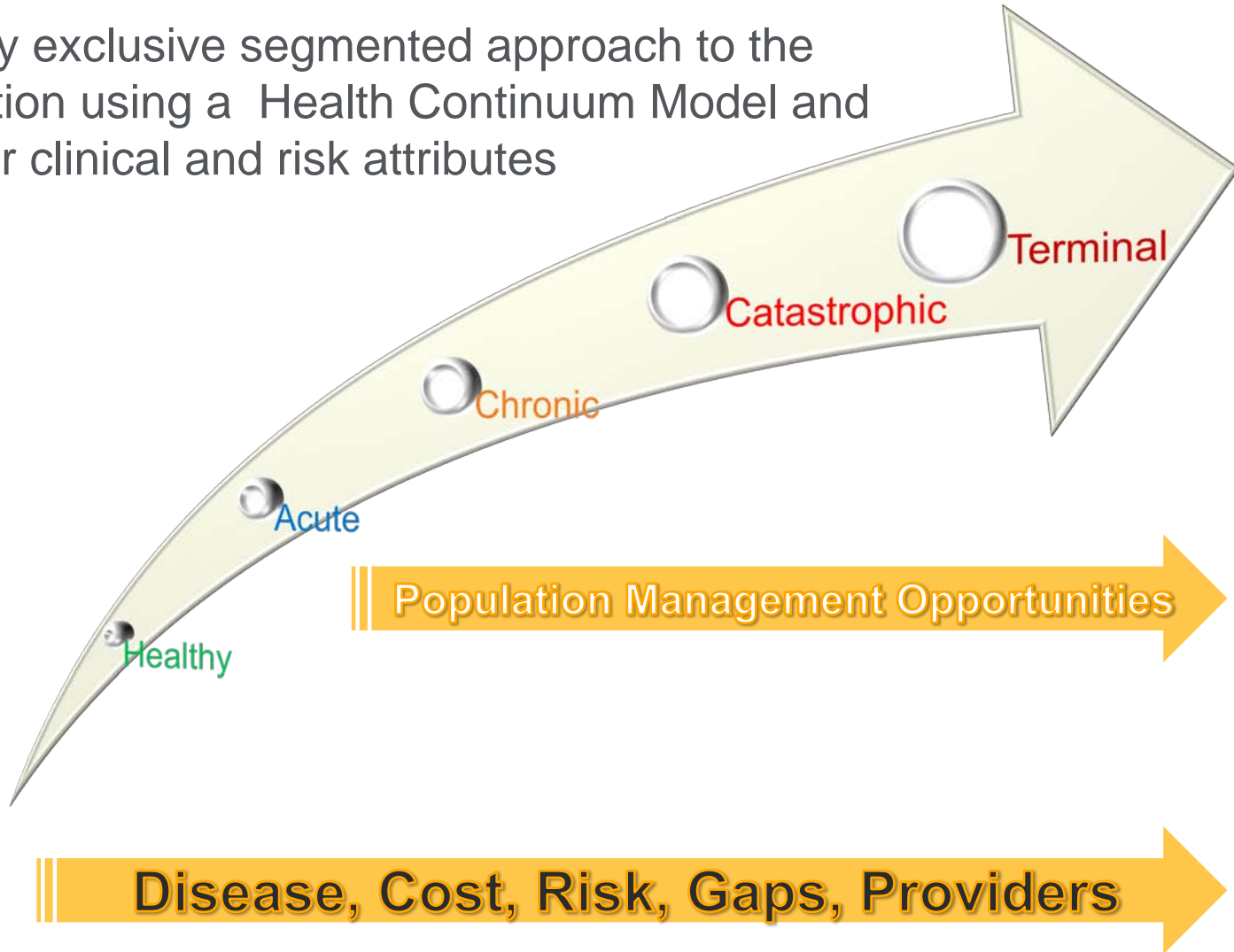
...and what does the data tell us so we can REALLY improve care and reduce costs, near- and long-term.

Shared Data Assets As The Foundation



Population Segmentation

- Mutually exclusive segmented approach to the Population using a Health Continuum Model and member clinical and risk attributes





Patient Attributes Used in Predictive Models

- Conditions and comorbidities – both physical and behavioral
- Relative risk for future cost and use
- Gaps in care relative to evidence-based medicine
- Prior use of acute care, including inpatient and ER
- Strength of Member-Provider Relationship
- Provider cost and quality performance

Data Considerations

- Complete medical claims and enrollment is a must because they provide diagnoses, utilization, costs and other basic information
- Pharmacy claims
 - Supports assessments of prior use
 - Adds incremental value to predictive modeling
 - Essential for identifying gaps in care – a good deal of opportunity on making sure patients are on proper meds, looking for drug interactions, appropriate monitoring for patients on meds (visits and lab tests, etc.)
- Lab results
 - Useful to measure outcomes (e.g., HbA1c levels for diabetics)
 - Adds value to predictive modeling
- HRA results can be helpful – especially for new patients – e.g., patients coming in from the exchanges
- Timeliness of data – important for some population segments – pharmacy data is more timely. Authorization data is a plus
- Predictive modeling is an important element of a segmentation strategy
 - Predictions of costs or future utilization
 - Likelihood of future chronic or catastrophic conditions

Health Continuum Categories



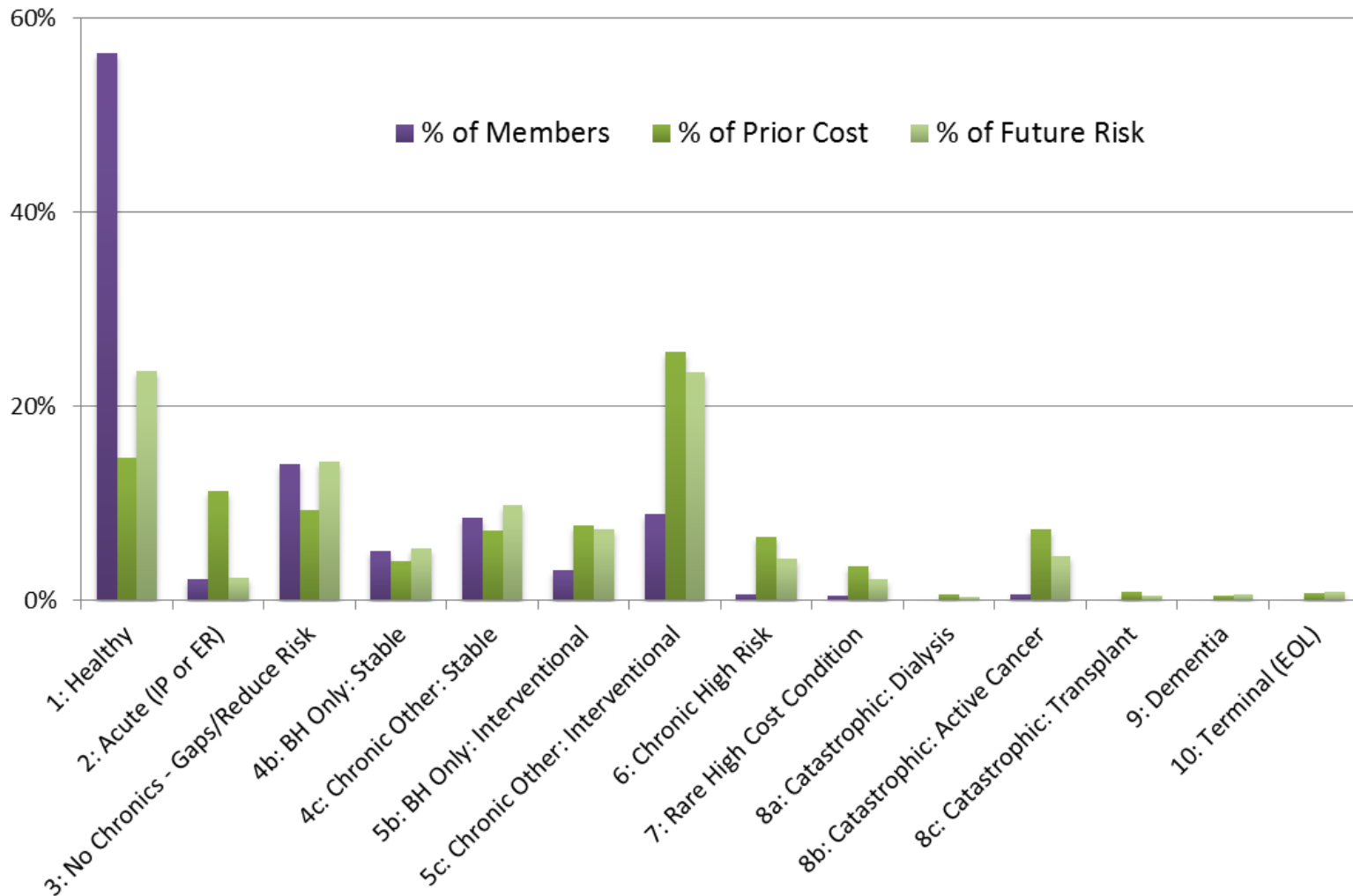
Category	Criteria
1: Healthy	Low risk, without Chronic dx, gaps, ER/IP (last 12 mos).
2: Healthy: Acute (IP or ER)	Without Chronic dx, with 1+ ER/IP – e.g. NICU, High Risk Pregnancy, Fertility Treatment
3: No Chronics: Close Gaps/Reduce Risk	Without Chronic dx (all others), Some gaps or moderate risk
4a: <i>Chronic 5</i>: Stable	Diabetes, CHF, CAD, COPD/Asthma , moderate risk, limited gaps, <u>without</u> ER/IP
4b: Behavioral Health Only: Stable	BH, <u>without</u> other chronic conditions, moderate risk, limited gaps, <u>without</u> ER/IP
4c: Chronic Other: Stable	Chronic dx (excluding <i>Chronic 5</i>), moderate risk, limited gaps, <u>without</u> ER/IP
5a: <i>Chronic 5</i>: Interventional	Diabetes, CHF, CAD, COPD, Asthma, <u>with</u> higher risk or gaps or ER/IP
5b: BH Only: Interventional	BH dx only, <u>with</u> gaps or ER/IP or higher risk
5c: Chronic Other: Interventional	Chronic dx (excl <i>Chronic 5</i>), <u>with</u> gaps, ER/IP, or higher risk

Health Continuum Categories



Category	Criteria
6: Chronic High Risk	Significant risk: Cost risk >15 (seniors), >10 (adult/peds) <u>OR</u> IP probability risk >50% or PRG risk >10
7: Rare High Cost Condition	CF, MS, ALS, Gaucher's, Parkinson's, Myasthenia Gravis, RA, Lupus, Sickle Cell, Hemophilia, Dermatomyositis, Polymyositis, Scleroderma
8a: Catastrophic: Active Cancer	Cancer with active treatment (chemo, radiation, etc)
8b: Catastrophic: Transplant	Solid organ and soft tissue
8c: Catastrophic: Dialysis	Hemo- or peritoneal dialysis
9: Dementia	Dementia
10: Terminal (EOL)	Hospice or metastatic cancer

Member Segmentation Detail *(Chronic 5 excluded)*



Impactable Members Categories: Examples

(mutually exclusive, reflects client input)

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- Pre-dialysis
 - Drug safety
 - High ER Use (5+ ER visits)
 - Moderate ER and Limited/No Provider Relationship
 - High Medication Adherence Issues (3+ gaps)
 - Moderate Med Adherence Issues and Limited/No Provider Relationship
 - Multiple Chronic Conditions, including BH
 - Movers: Future Cost \$35,000 higher than Prior Cost
 - New Transplants in last 12 mos
 - Terminal (EOL) – Metastatic Cancer and advanced age
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Thank You

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