Utah Medical Education Council

Meeting Minutes
October 28, 2019
Held 12:00 p.m. UMEC offices

Council Members Present:
Wayne Samuelson (Chairman)
Doug Gray
Mary Williams (by phone)
Mark Hiatt
Gar Elison

Council Members Excused:
John Berneike
Greg Elliott
Sue Wilkey

Other Individuals Present:

Mike Magill

Staff Present:
Ric Campbell
Clark Ruttinger
Victoria Gonce
Jared Staheli
Jerry Bounsanga
Andrew Salt
Julie Olson

Motions:

- The October 28, 2019 meeting minutes were approved unanimously.

Handouts:

- Agenda for 2-19-20 Meeting
- Minutes of the 10-28-19 Meeting

Action Items:

1. Welcome and Introductions – Wayne

2. Approval of 10-28-19 minutes – Wayne
   Motion: The 10-28-19 minutes were approved unanimously.

3. Legislative Session Update – Ric

   There was no problem with the UMEC budget getting approved this session. The budget did get funded from the Education Fund (income tax) this year. Previously it's been funded from sales tax revenue.

   We had a bill relative to our rural clinical placement program that has passed both houses. It was a sunset reauthorization. For five years, we have built a great relationship with the Board of Regents and the Commissioner. The Board of Regents is being reorganized so we will have to reestablish some of those relationships. SB 111 is the bill where they are combining the Utah Technical College System with the Utah Higher Education System. They're getting rid of the Board of Regents and creating a new

board. In the bill, UMEC is only affected in one area and that is in the nursing demand responsibility – just changing the reporting requirement from the old board to the new.

There are UMEC performance measures that have been required by the Legislature which include: Conducting healthcare workforce research, advising on Utah's healthcare training needs, and working to influence graduate medical financing policies.

- Graduate medical education growth (target of 2.1% growth)
- Retention for residency and fellowship programs (target of 45% and 32%)
- Utah healthcare provider 100,000 population ratio target of 271 – we report on physicians, PAs, and NPs

We are meeting these measures even when we may not have that great of an influence overall.

There are a number of health-related funding requests including AHEC requesting $800,000, the Dental school is looking for $1.2 million in rural program funding, the hospital association together which the Ken Gardner Center for mental health issues.

4. Physician Retention Report – Andrew

The data we have shows (since 1998) 5,761 total residencies, 5,441 unique graduates, and 2,197 practicing in the state. Andrew provided a slide of retention by specialty for the last ten years. This information is also available on the website with an interactive map. 2019 data will be updated as soon as additional data is collected.

This report is evolving with improved methodology. Retention rates are currently calculated by using a database that has a list of all graduates with their specialty and year of graduation, and then we track them every year through google search. The new method of calculation will be to stop gathering rotation data (since there is no tie to financial payments and thus no need to get social security numbers), and just collect license numbers and a few other identifiers about the programs

Dr. Gray brought up tele-visits where doctors may physically live in one state and see patients in another or one doctor practices here for a few years, moves away, and then returns later on and how these situations are hard to determine in retention rates.

Ric asked about possibly tracking doctors for the first five years out of medical school. There are other healthcare groups that are asking the UMEC to track retention, so some guidelines need to be set if we branch into tracking other groups. So, what exactly does it mean to retain someone?

Dr. Hiatt suggested Doximity to find up-to-date physician locations.

Ric also asked, besides the legislature, who has an interest in retention data? Answers include all the education programs (so they can determine what kind of faculty they need) and research professionals. The issue will be explored in the future since we have more options.

5. Nursing Demand Report Status – Andrew

The demand study is actually mandated by the legislature. It is to be generated every two years and provided to whoever is replacing the Board of Regents as well as the legislative appropriations committee. This is the third demand study. The previous two studies were completed by contacting the employers. A lot of times HR departments don't know how much room for growth there is for nurses.

We also do not get great response rates from certain setting types. County specific data was also difficult to obtain as some employers cover multiple counties. Some employers are out of state.

A new approach we are trying is getting the unemployment information from DWS. We started with ten quarters of wage data (2017). Addresses were matched from the employer data to the DOPL data, hoping that those addresses are accurate.

To find "room for growth," we decided to contact DWS and get information on the help wanted ads. Those can be filtered by time, as well as by county. We put that information into Tableau and used the combined data to make three calculations: new hires, turnovers, and whether or not they had left the workforce. Those can be seen as whether they're a new employee-new employer combination, whether they left their employer but showed up in future quarters, or whether or not they left that employer and no longer show up in the unemployment information.

Using that information, we can look at the total of RNs as well as the number of ads online to see the desire for growth in the state. About 5% of jobs in Salt Lake are unfilled. You can track the actual growth by County, setting, actual employer, based on Andrew's tableau map.

Mary asked about tracking BSN vs. associate degrees. Staff is in the process of identifying education level data.

6. Workforce Projection Model User Interface – Clark

Summary of presentation with an interface demonstration:

Model Output Needs:

- Ideal provider staffing
    - Given population need, what would be an optimal provider team composition (ie: types and number of providers)
- Ideal provider staffing constrained by current provider's composition
    - Given population need and current provider composition, what would be an optimal provider team composition?
- Ideal service/task allocation
    - Given providers current composition, what would be an optimal task/service allocation?

What We've Accomplished This last year

- Submitted 5 application for conference presentations
    - Accepted at 4 of them, unsolicited invitation to present at another
- Received funding from the state legislature to build the interface that IBM designed.
    - Contracted with CS faculty at the U of U Visual Design Lab to have the interface built.
- Worked with UDOH to access APCD data
- Worked with DTS on establishing web-hosting for the model interface
- Submitted a paper to the Journal of Interprofessional Care (awaiting response)

Our Interface is only about ½ of the way completed.

- Still working on:
    - Display of optimization options
    - Scenario comparison functionality

- Operationalizing data source extraction for source data
  - Potential collaboration with 3M in risk grouping of Utah APCD
  - Interest from Colorado/Virginia on replication with their state APCD
  - HER – U of U
    - Log data to describe provider/patient/team interaction

Future Work

- Systems Dynamics Modeling Standard Tests

- Behavior Reproduction - Dimensional Consistency
- Extreme Policy - Extreme Conditions in Equations
- Behavior Prediction - Behavior Sensitivity
- Mode Reproduction Ability - Behavior Boundary
- Anomalous Surprise Behavior - Adequacy/Structure Sensitivity
- Perspective/Boundary Adequacy - Policy Sensitivity
- Structure Boundary Adequacy - Policy Boundary Adequacy
- Norms/Values Boundary Adequacy - Roles Boundary Adequacy

Conclusions

Need for a new, integrated, comprehensive primary healthcare workforce planning framework

Must incorporate previous methodological advances in health workforce planning along with current contemporary factors:

- Patient centered care delivery
- Addresses the Quadruple Aim
- Incorporates professional team optimization, supply, demand, and population needs data, benchmarking and gap analysis.

Must be flexible and responsive to changes in any of these factors.