Data Visualization Competition
Wharton People Analytics Conference 2020

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There have been 946 MedCo assignments since 1996.
462 People have completed at least one MedCo assignment.
How should we define shortage?
Shortage is people stopping after *just* one MedCo assignment.
57% of the time, people stop after one MedCo assignment.
That’s a 57% turnover rate for a **crucial** position.
262 people did **one** MedCo

200 people did more than one MedCo
How can we make this go down?

How can we make this go up?
How might we explain why some people stop after one Medco, while others continued?
We can try to understand how one-timers are different from multi-timers.
Considering the average number of assignments before someone is “ready” for MedCo.

- **For one-timers**: 4.38 assignments
- **For multi-timers**: 4.90 assignments
Multi-timers took *slightly* longer to get ready for their first MedCo.
Multi-timers go on to do twice as many assignments throughout their career, on average, as one-timers.

Consider the total number of assignments.
Multi-timers go on to do twice as many assignments throughout their career, on average, as one-timers.

This makes sense as a MedCo assignments count towards the total.
Consider MedCo assignment length.

On average, multi-timers MedCo assignments are 2 months shorter.

- Median length: 206 days
- Average length: 268 days
Recap

• People who do more than one MedCo assignments (multi-timers)
  • Do nearly **twice** as many assignments, *in total*.
  • Have gone on **shorter** MedCo assignments
  • Take **slightly longer** to work their way up to their first MedCo assignment
What happens when people go on a MedCo assignment, as their first assignment?

93 people have done this.
71% of the time, they stop after one MedCo assignment.
71% of the time, they **stop** after **one** MedCo assignment.

This is especially true for **first departures**, who don’t make it past the second assignment.
When it was their first assignment, 66 people stopped after one MedCo.

93 people whose first assignment was Medco.
Only 17 people went onto a second MedCo

93 people whose first assignment was Medco

The drop off is sharp.
Although multi-timers tend to do more assignments, this relationship holds only for those *not* on their first departure.
Timing matters.

MedCo assignments should be reserved for those who are not on their first assignments.

Particularly if it’s their first departure.
How success is defined matters.

Conventional thinking has it that if someone ascended to MedCo after just a few assignments, they were “successful”.

The data suggest taking a *bit longer* to get ready for the first MedCo is fine.
How do we define *gaps*?
462 People have completed at least one MedCo assignments.
262 People did one MedCo assignment

200 People did more than one
A gap is when someone takes a break from MedCo – performing in another role – before resuming with another MedCo assignment.

- **88** People did consecutive assignments
- **112** People took a break between MedCo assignments
Are there differences between those who did consecutive MedCo assignments and those who took a break to do other jobs?
People who took a break between MedCo assignments had done almost twice as many MedCo assignments.
This pattern continues for the span of their careers.

People who took breaks, did **more**.
People who took a break between MedCo assignments took a bit longer to work up to their first MedCo assignment.
The relationship between Number of Assignments and the Number of MedCo assignments…

**Correlation between Number of MedCo and Number of Assignments (in Total) by work patterns (consecutive vs. non-consecutive).**

- $r = 0.39$
- $r = 0.11$
...is stronger for people who took breaks after a MedCo assignment.
Perhaps gaps are a good thing.
What do people do before their first MedCo assignment?
If the average position of people’s first MedCo is on their 5th assignment, what did they do on their first four?
The **two** prominent positions to help people prepare for their first MedCo are:

1. MD
2. Project Coordinator.
Why are MD and Project Coordinator roles so popular?
Because MedCos require a medical background, the MD role is a natural starting place for many.

Some prefer medical work and will continue in the MD role for multiple assignments before transitioning to MedCo.
For others, the MD role provides **optionality**.

There are **12 flows** starting from the MD role, giving people a diverse range of career options within MSF before their first MedCo assignment.
However, most MDs will generally cycle between Project Coordinator, MTL or remaining in MD.
The Project Coordinator role provided the second most career optionality, with 8 flows before MedCo.
People generally do not start with the Project Coordinator role.

Consistent with the operational requirements of MedCo, the Project Coordinator role is the go-to role for medical people (MD, Nurses, MTL and Gas) to gain those experiences.
We know that MD and Project Coordinator roles are popular for MedCo’s in training...
What *other* roles do people use to prepare for MedCo?
The third path toward MedCo is via the Medical Team Lead (MTL) role.

This role provides just as much optionality as the Project Coordinator (8 flows).

People can stay in MTL or migrate towards MD or Project Coordinator roles.
Curiously, the MTL path is *not* as popular as the Project Coordinator role, given that it involves coordinating medical care at the project level *and* reporting directly to the MedCo.

On paper, this role would appear to be a fertile training ground for future MedCos. But some how it’s underrated as a viable path toward MedCo.
Nurse and GAS roles lag behind in terms of career paths towards MedCo.

Between the two, GAS appears to have more optionality. Through GAS, people can switch to MD, Project Coordinator or remain in GAS.

Nurses appear to only choose between Project Coordinator or remaining in Nurse.
The two final roles to highlight are:
1. Non-Medical,
2. Deputy MedCo.

Since the Deputy MedCo assists the MedCo, it's likely the role with the most realistic job preview for MedCo. Which is why we see it in the fourth assignment before MedCo.
Oddly, few people seem to travel through the Deputy MedCo.

There have only been 170 Deputy MedCo assignments to 946 MedCo assignment which is notable, given that the former reports to the latter.

Finally, Non-Medical pools significantly out number other pools, but is curiously under-represented in the various paths toward MedCo.
Recommendations*
(*see Recommendation section in memo for further details)

Encourage people to take sufficient time to prepare for their first MedCo assignment.

Encourage people to take breaks after they’ve completed a MedCo assignment to pause, reflect and replenish.

Encourage lesser traveled career paths towards MedCo (i.e., Nurses, GAS, MTL). Highlight Non-Medical and Deputy MedCo assignments.

Create formal structures for feedback, coaching and mentorship while someone is doing a MedCo, particularly for first timers.