



Optimising Workforce Wellness: strategies for effective planning, scheduling, and deployment

June 4, 2025 – Rennes, France

Drake, S.C., Delencourt, S. & Schweiger, J.

Healthcare Management Perspective

Workforce Planning, staff scheduling, and deployment is one of the highest impact strategic operations in a health system.

Yet it can be viewed as of low value and largely transactional. This function plans for and deploys ~ 70% of the budget, and all care and skill to the bedside, resident, and/or client.

There is a direct relationship between these functions, and:

- Employee Wellness;
- Retention;
- Patient safety and experience;
- Access, capacity and flow;
- Financial sustainability of health services delivery.

(Alvarez, C., et al. 2020; Bolino, 2020; Drake & Valentino, 2025; Stimpfel, A. W. et al., 2025)

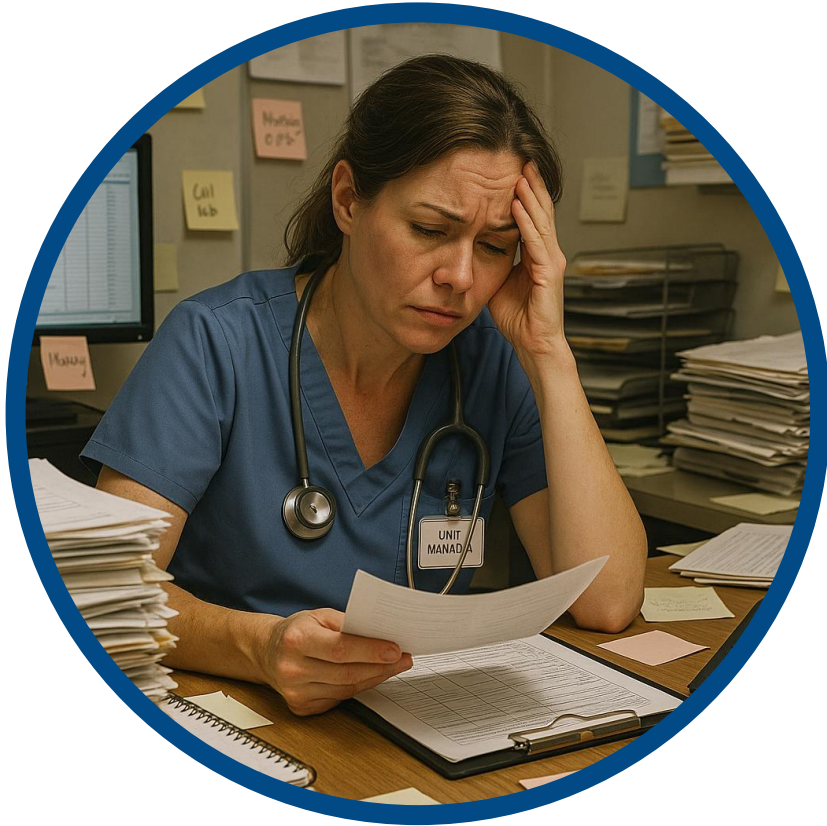
**Optimization of these practices are one of the least
developed *levers* in healthcare management**



In many instances, we leave this giant responsibility up to loosely trained, junior, clerical resources with little consistency in procedures resulting in poor schedule quality.

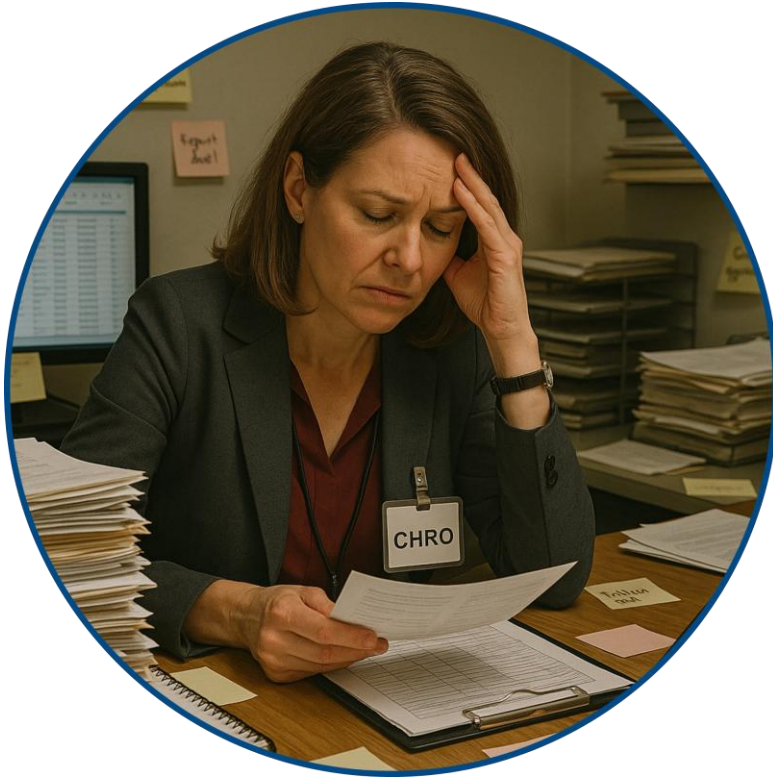
(Drake & Smith, 2024).

“clerks as staff schedulers”



In other models, we rely on busy unit leaders, to complete these transactional, often low-value, repetitive staff scheduling tasks.
(Drake, 2024; Valentino, 2025).

“clinical leaders as staff schedulers”



Breakdowns are more likely to result in a lack of transparency, equality, and fairness in scheduling related decisions and schedule quality issues.

(Drake & Betts, 2023).

“job satisfaction issues”

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Linkages exist between scheduling practices and the **quality of working life.**

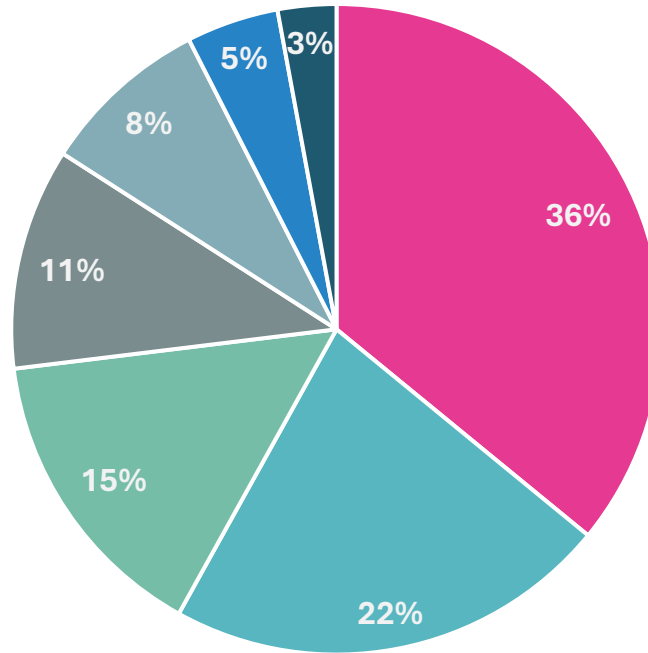
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We operationalized and measured the **indicators of predictability, stability, and safety.**

(See: Nelson, Felgen & Hozak, 2021)

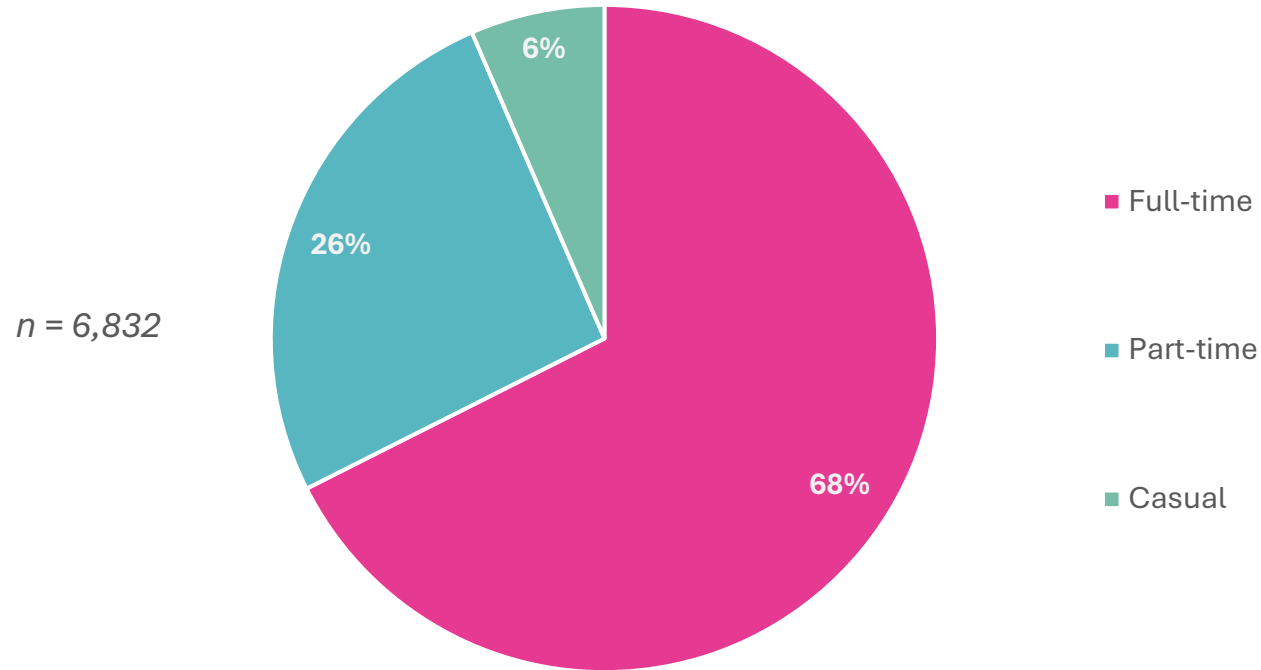
Occupation

n = 6,832



- RN
- LPN
- Admin
- Allied Health
- HCA
- HSK/Foods
- Unit Clerk

Position Mix



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Predictability

How far in advance do you know your schedule?

n = 3,945

55% know
schedule
Less than 4
weeks in
advance

How far in advance would you *like* to know you schedule?

n = 5,286

80% want to
know schedule
More than 4
weeks in
advance

How **predictable** is your schedule?

n = 5,730

54% said '**not
very**' or '**not at all**'
predictable

Less than half
have a
predictable
schedule and
almost half
are not
satisfied with
their
schedules.

How **satisfied** are you with your schedule?

n = 5,797

28% were
'**somewhat**'
satisfied

21% were
'**not**'
satisfied or
'**very**'
unsatisfied

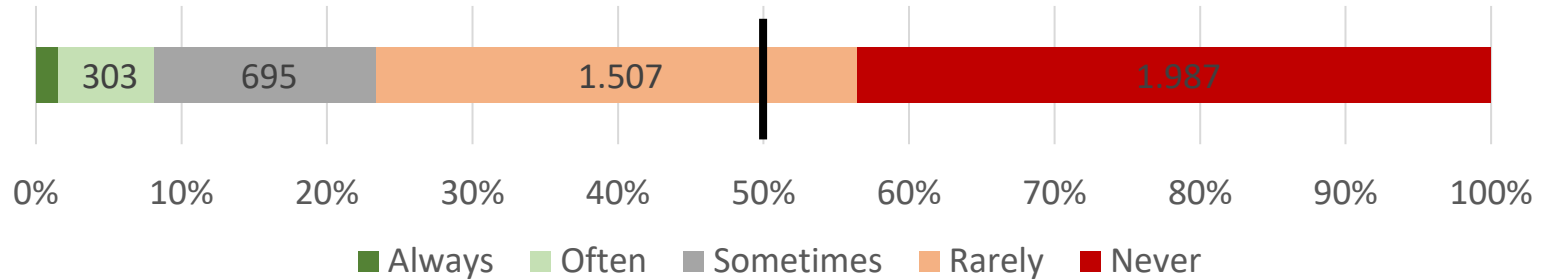
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Stability

My Life – Posted Schedule Change

How often is your posted schedule *changed* before you work it?

n = 4,560

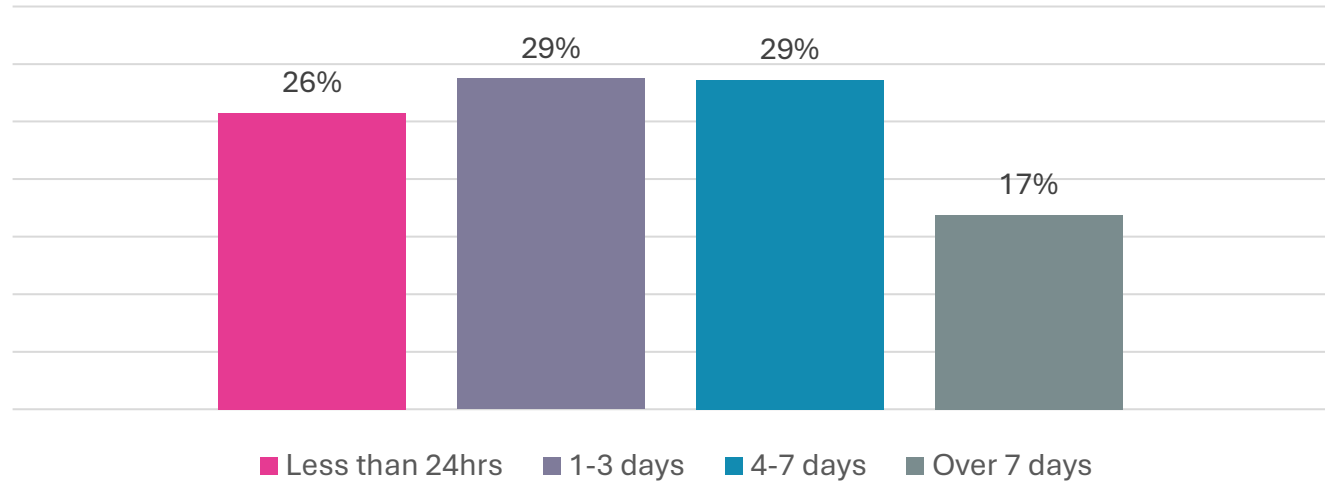


~40% report no changes; ~30% report that changes occur but are rare; ~30% report frequent changes.

My Life – Notice of Schedule Change

When your schedule is changed how much notice do you receive?
n = 1,775

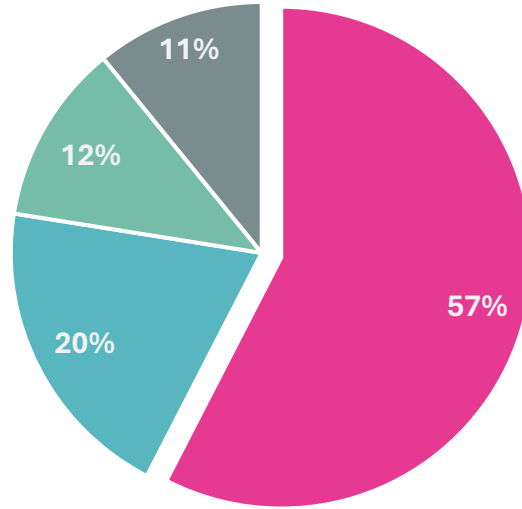
54% of respondents are advised of schedule changes with 3 days or less of notice.



My Life – Notice of *Shifts Offered*

How far in advance do you get called/notified of extra shifts you can pick up?
n = 2,161

57% of
respondents
are offered
shifts the
day of!



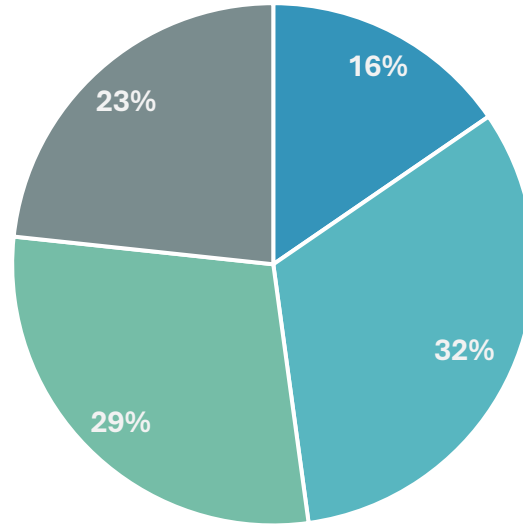
- Same Day
- 1-3 Days in Advance
- 4-7 days in Advance
- More than 1 Week

My Life – Ideal Notice

In an ideal world, how far in advance would you like to get called for extra shifts?

n = 1,549

84% of respondents report that they need more than 24-hrs notice to commit to a shift or to juggle a schedule change.



- Same Day
- 1-3 Days in Advance
- 4-7 days in Advance
- More than 1 Week

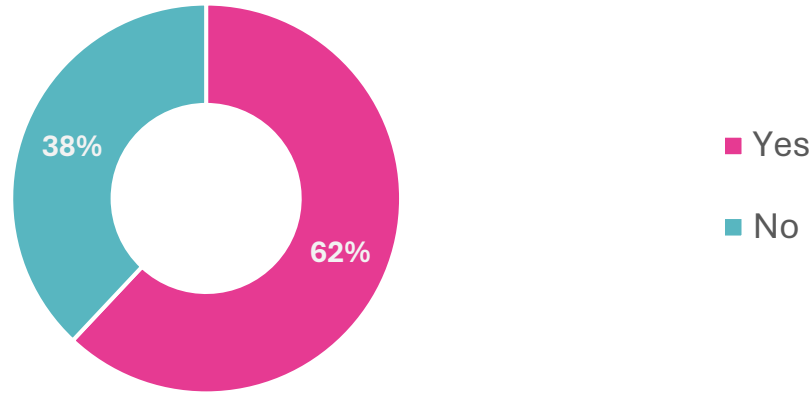


Safety

Re-Deployment

When I am re-deployed I am sent to units that I am unfamiliar with.
n = 2,406

Of those reporting re-deployment, 62% report that they are re-deployed to units where they are **not** regularly scheduled.

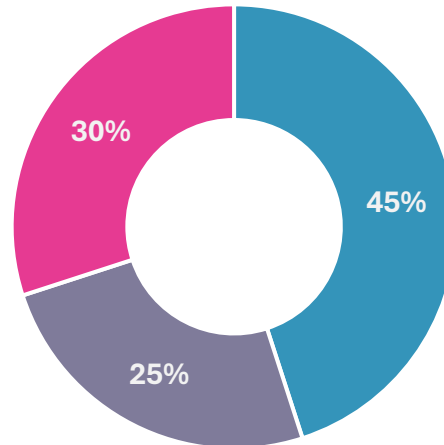


Re-Deployment & Skills

When I am re-deployed I have the skills I need to provide safe care.


n = 2,406

55% of respondents claim that when they are re-deployed, they do **not** or **might** have the right skills to provide safe care.



■ Yes
■ Maybe
■ No

PROBLEM SYMPTOMS CUMULATE INTO HEALTHCARE MANAGEMENT & WELLNESS ISSUES [unpredictability, regular changes, poor notice, unsafe]



Difficulty Maintaining Baseline

Turnover

Clinician and Patient Safety

Unfilled Shifts

Limited Vacation / PTO Approvals

Stress & Burnout

Absenteeism

Poor Continuity in Care / Assignment

Chronic Overtime

Unintended Utilization Waste

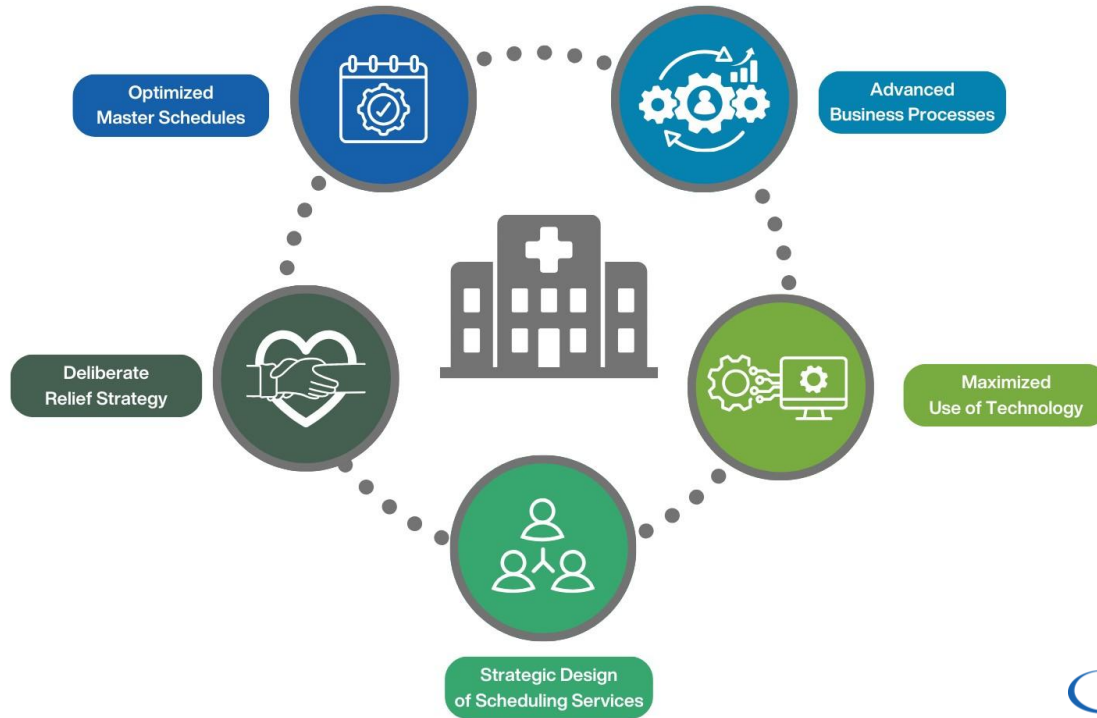
Reliance on Agency

Labor Disputes

Inequitable scheduling practices

SO HOW CAN **HEALTHCARE MGMT.** SOLVE FOR THIS?

Healthcare Workforce Optimization Models©



Integrated components

Surround
operational
leaders with
service models
like other matrix
functions

A vertical strip on the left side of the slide showing a close-up of a classical building's dome and facade, featuring ornate architectural details and a tiled dome.

A Story of Model Application



The CHU de Québec serves the entire population of eastern Québec and northwestern New Brunswick, a catchment area of nearly 2 million people.



Quebec's largest university hospital center (CHU) serves the entire population of eastern Québec, a catchment area of nearly 2 million people.

One of the largest university teaching centers in Quebec

One of the largest French-language medical research centers in North America

One of Canada's largest birth centres

- Five hospitals
- 12,954 employees
- 1,543 physicians, dentists and pharmacists
- 1,134 researchers
- 1,700 CHU Research Centre employees
- 1,226 graduate students and postdoctoral fellows
- 257 volunteers
- Manages an annual operating budget of \$1.4 billion.



Centre intégré universitaire de santé et de services
sociaux de la Capitale-Nationale

CIUSSS de la Capitale-Nationale serves the Charlevoix, Québec and Portneuf regions. It serves the needs of more than 766,579 citizens living in an area of 18,643 km².

- More than 18,362 health and social services employees, including 705 managers in 20 directorates
- A network of excellence in health and social services, research and teaching, while promoting and protecting public health.
- 4 research centers and 4 university institutes.
- More than 200 facilities.
- Manages an annual operating budget of \$1.8 billion.

A vertical strip on the left side of the slide showing a detailed, ornate dome of a classical building, possibly a church or government structure, with intricate carvings and a tiled roof.

A Story of Model **Impact**

35M in position optimization following Santé Québec order to identify 3.65% per unit savings to budget at intended baseline.

Reduced Overtime Rate: 52% drop in the use of mandatory overtime over one year resulting in significant advance in work/life balance.

Scheduling Efficiency: Nursing is moving have long term master schedules. Previously, new schedules were built and posted each 4-6 weeks requiring extensive effort.

Process Utilization: Advance booking enables employees to express their availability to fill additional shifts. Deployment of this key procedure has enabled to fill 11,200 vacant shifts to date, without any calls to employees.

Workload Reduction: Administrative staff dedicated to scheduling saw a 50% reduction in workload.

Ad-hoc leave requests = 45084

Answered = 86,78% / Waiting for an answer = 1,57% / Expired = 11,65%

Approved = 72,24%

Denied = 27,76%

Withdrawal and banking of stats requests = 1845

Answered = 91,49% / Waiting for an answer = 1,14% / Expired = 7,37%

Approved = 68,42%

Denied = 31,58%

Interest to train in another sector/program requests = 337

Answered (Accepted/Refused) = 120

On the waiting list = 217

Shift swap - Number of forms completed = 6006

Phone consult and on-call authorizations

Number of forms completed = 4518

Daly schedule/time capture change request

Number of forms completed = 11994



BÉNÉFICES PRÉLIMINAIRE CIUSSS-CN *@2 weeks implementation*



First deployment of 5 – Multidisciplinary Services, Dementia and Homelessness Department (DSMDI)

- 10 sites, 2000 employees.
- 8 new automated business processes implemented

Results 2 weeks after deployment

- Employees are pleased with the change Manager's paradigms will shift; “letting go” is key to success
- **Leave number of request – after 2 days of going live**
 - vacations 23; personal reasons; 43 without pay; 159 psych leave; 121 statutory holidays; 11 banked vacation
- **Posting of unfilled shifts** are posted for a period of 4 weeks (Will be progressive to reach 8 weeks by early June)
- **Advanced Booking – May 2**
 - 450 shifts offered. After 72 hours of posting, 375 applications were received (more than one application per shift).
- **Advanced Booking – May 9**
 - 1000 shifts offered. After 72 hours of posting, we received 1,780 applications (more than one application per shift).

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The point of the **benefits** are:

1. Leaders are better **assisted** with transactional tasks;
2. Practices are consistent and standardized returning **equity, transparency, and quality** to employees working lives;
3. Together, these factors support **wellness**

A vertical strip on the left side of the slide showing a detailed, ornate dome of a classical building, possibly a church or university hall, with intricate carvings and a tiled roof.

Implications for **Healthcare** **Management** Policy & Practice

Key Performance Indicators

Benefit Category	Metric	Baseline	Eight week	Q ⁿ	Y ⁿ
Optimized Schedules	Shifts Filled				
	Actual FTE vs. Budget				
	Full-time/Part-time Mix				
	Vacancy Rate				
	Time to Fill Vacant Positions				
Overtime Reduction	Overtime vs. Worked Hours				
Agency Reduction	Agency vs. Worked Hours				
Adverse Events/HAC	# of Events where staffing under baseline/skill a presenting factor				
	\$ Cost of addressing event				

Key Performance Indicators

Benefit Category	Metric	Baseline	Eight week	Q ⁿ	Y ⁿ
Turnover Reduction	Voluntary Turnover				
	Plan to Stay/Leave (Survey)				
Absenteeism Reduction	Sick Used vs Allocated				
	Sick vs Worked Hours				
Payroll Error Reduction	Total Number of Payroll Errors				
	\$ Amount of Payroll Errors				
Grievance Maintenance	Number of Formal Grievances				
Manager Time	Manager Time Spent on Scheduling				

Key Assets / Stepping-Stones

helpful from wellness and management perspectives

- Budgeted FTE for dedicated scheduling support
- KPIs reported quarter over quarter
- Master Schedule and Relief Optimization Guidelines
- Standard Interpretations of Collective Agreements
- Standard Staff Scheduling Operating Procedures for managers, schedulers, and employees
- Workforce Planning Business Processes that travel through recruitment and staff scheduling
- Initiation of position controls in finance
- Change control frameworks

Note: Refer to Ch. 5 "Implementation Planning" (Geva-May, 2025).

A cluster of several small, colorful geometric shapes (triangles and polygons) in shades of pink, teal, and blue, arranged in a circular pattern.

THANK YOU



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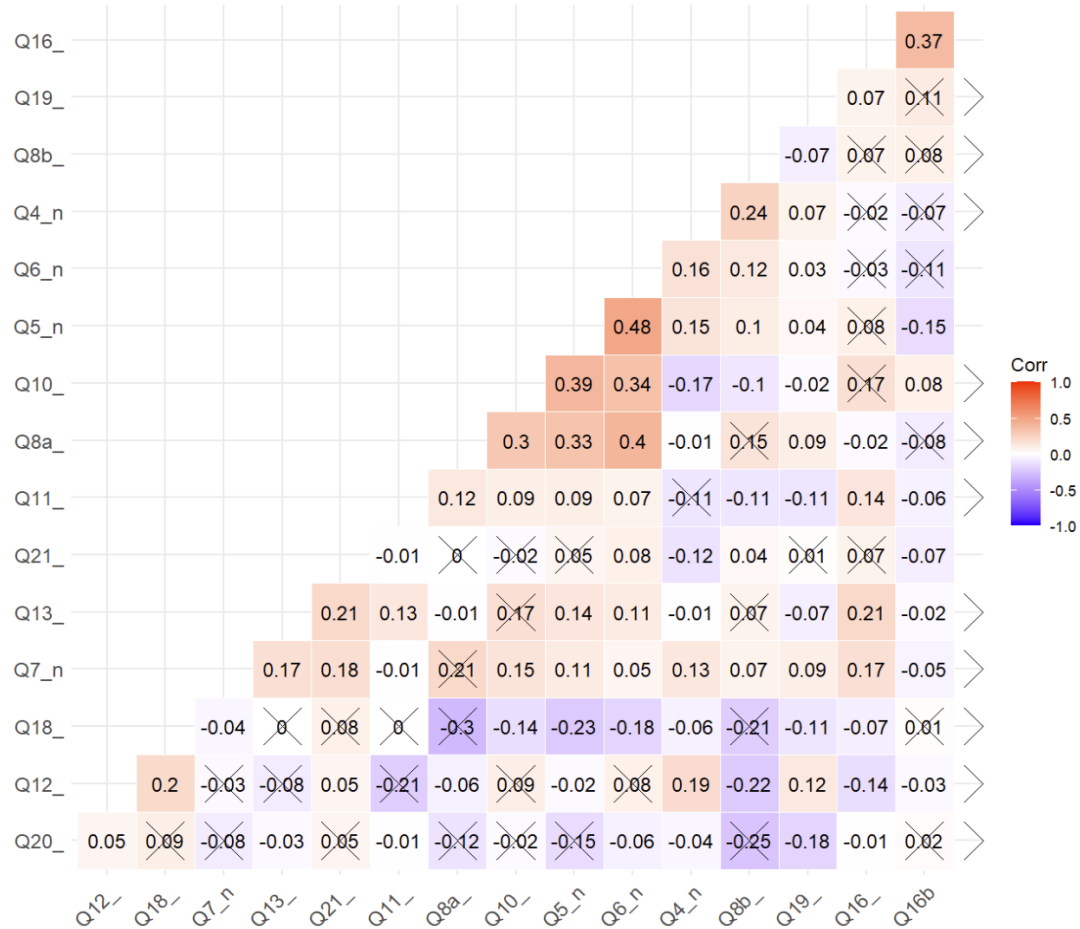


Appendix

Correlation Heatmap

Spearman's rank correlation coefficient

All p-values = <0.05



Top Correlations*

Question	Correlation ρ	Insight
5 & 6	0.48	The more predictable the schedule is, the more satisfied staff is with the schedule.
5 & 10	0.39	The lesser the shift swap frequency, the more satisfaction with the schedule.
5 & 8a	0.38	Schedule satisfaction is associated with fewer posted schedule changes.
8a & 10	0.41	The more the schedule is changed, the more frequent the shift swaps.

***highly significant relationships**

All p-values = <0.001
Triangulated with qualitative survey data