Sustaining Statewide Transdisciplinary Collaborations to Address Cancer Disparities

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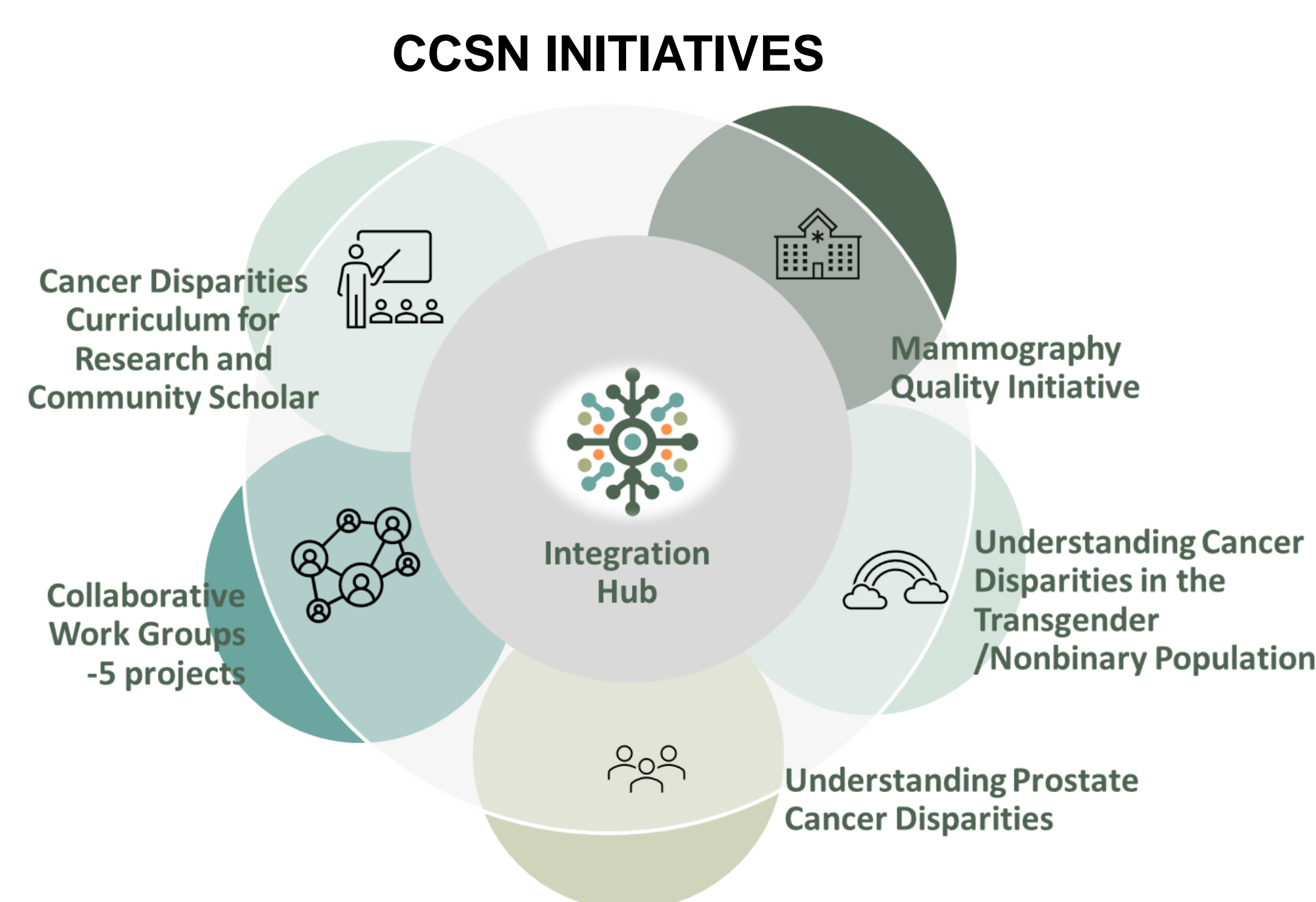
BACKGROUND

Wisconsin demonstrates cancer disparities in race/ethnicity, geography, and socio-economic status. Addressing disparities requires deeper integration of social and scientific problem-solving and a systems approach. Given the complexity of disparities, we must seek equitable outcomes as well as an equitable process in addressing disparities, reflecting the perspectives of those involved and impacted. We developed a transdisciplinary approach inclusive of community, clinicians, and researchers to build capacity to understand factors that underpin disparities and design newer sustainable solutions.
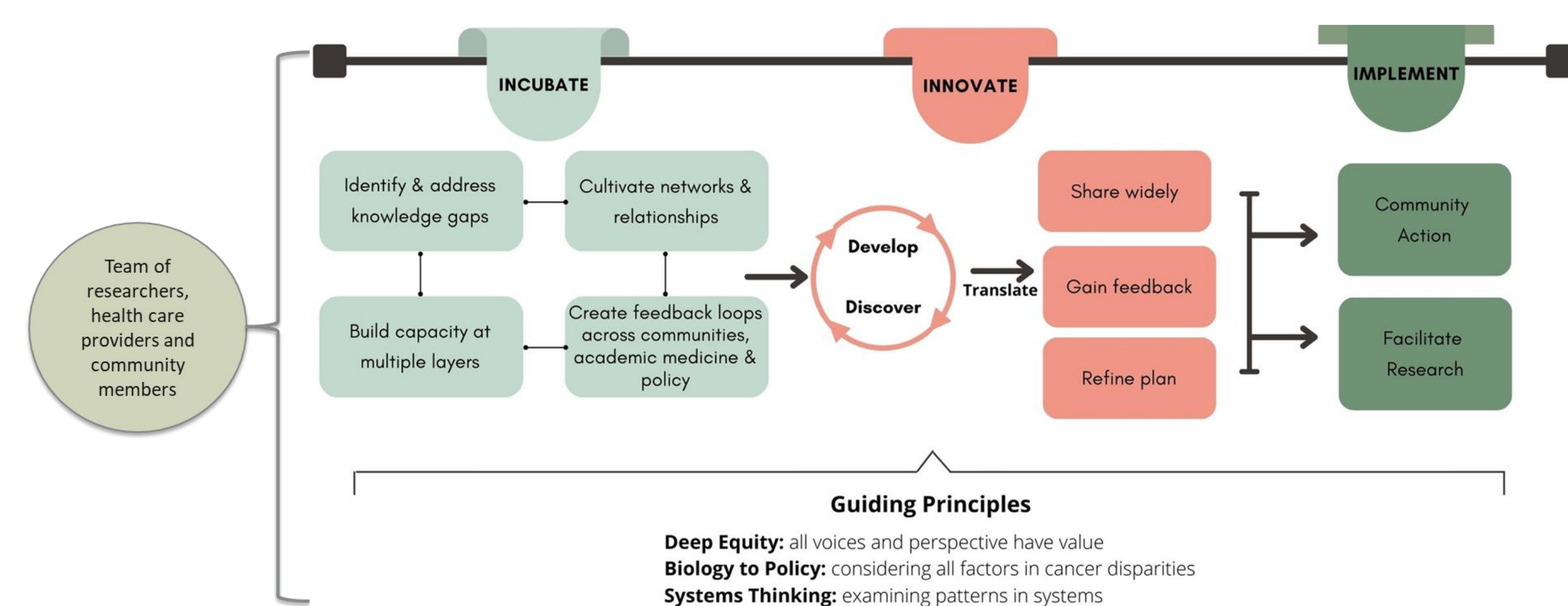

Lung Cancer Mortality Rate
Wisconsin, 2015-2020
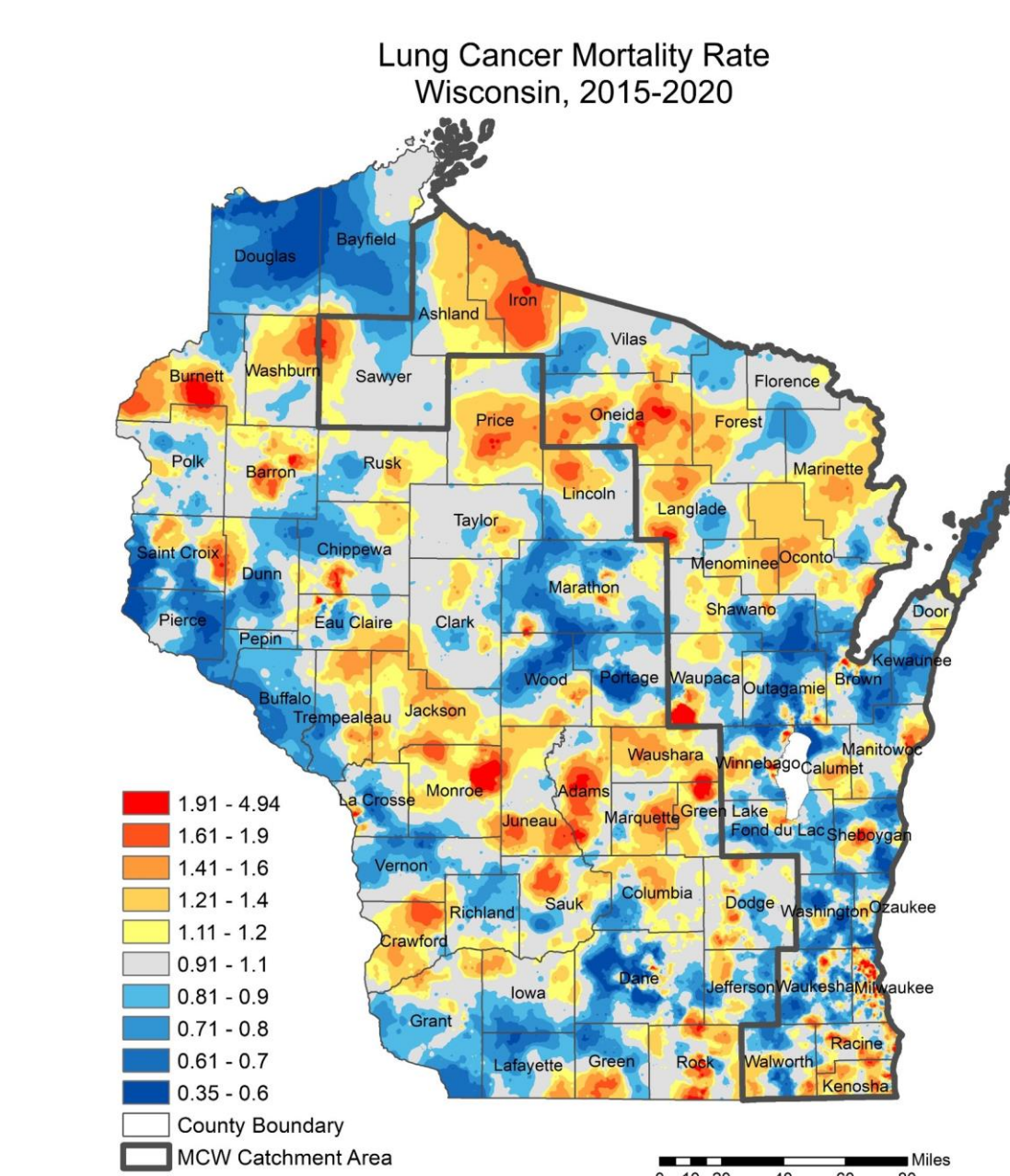
2015-19 Select Cancers in WI by R/E Age-Adjusted Rates per 100,000

	Incidence State of Wisconsin			Mortality State of Wisconsin		
	NH White	NH Black	NH AI/AN	NH White	NH Black	NH AI/AN
Colon & Rectum	35.7	51.2	55.2	12.2	17.9	18
Esophagus	5.4	4.9	8.5	4.7	4.4	6.3
Female Breast	137.3	141.9	149.8	18.5	27.8	16
Lung and Bronchus	58.2	90.6	92.3	36.8	56.5	53.2
Prostate	117.1	199.5	121.7	20.6	38.6	18.8

The **Community and Cancer Science Network** (CCSN) Integration Hub was established within the Medical College of Wisconsin Cancer Center to provide leadership and capacity building to eight transdisciplinary project teams working to address cancer disparities using the CCSN Framework.

CCSN INITIATIVES

CCSN Framework

Guiding Principles
Deep Equity: all voices and perspective have value
Biology to Policy: considering all factors in cancer disparities
Systems Thinking: examining patterns in systems

The Integration Hub executes on its strategies by providing:

- One-to-one team coaching and championing
- Network convening and training
- Coordinating cross-project learning and communication
- Facilitating funding resources and team development
- Identifying synergistic opportunities across projects
- Assessing and supporting sustainability

METHODS

The first five-years of the Integration Hub focused on refining and strengthening its framework using real-time evaluation data to support sustainability planning and monitoring of the project team learning environment. In year three, we finalized two tools to help assess the health of the CCSN network and to strengthen its infrastructure to support sustainability of the network and the use of its transdisciplinary framework.

Network Sustainability Measures

The Organizational Mapping Tool-Coalitions, Alliances and Networks (OMT-CAN), adapted from the Ford Foundation, measures factors necessary for a sustainable coalition or network. It is completed annually by the Integration Hub Leadership and Project Team Leadership (co-PIs, Facilitators & Evaluators) annually to plan strategy.

Subscales:
- Purpose, Goals, Strategy (8 items)
- Composition, Structure, Identify (8 items)
- Joint Action, Planning Learning (7 items)
- Impact on the Field (4 items)
- Strategic Communications (6 items)
- Leadership & Governance (10 items)
- Culture & Relationships (10 items)

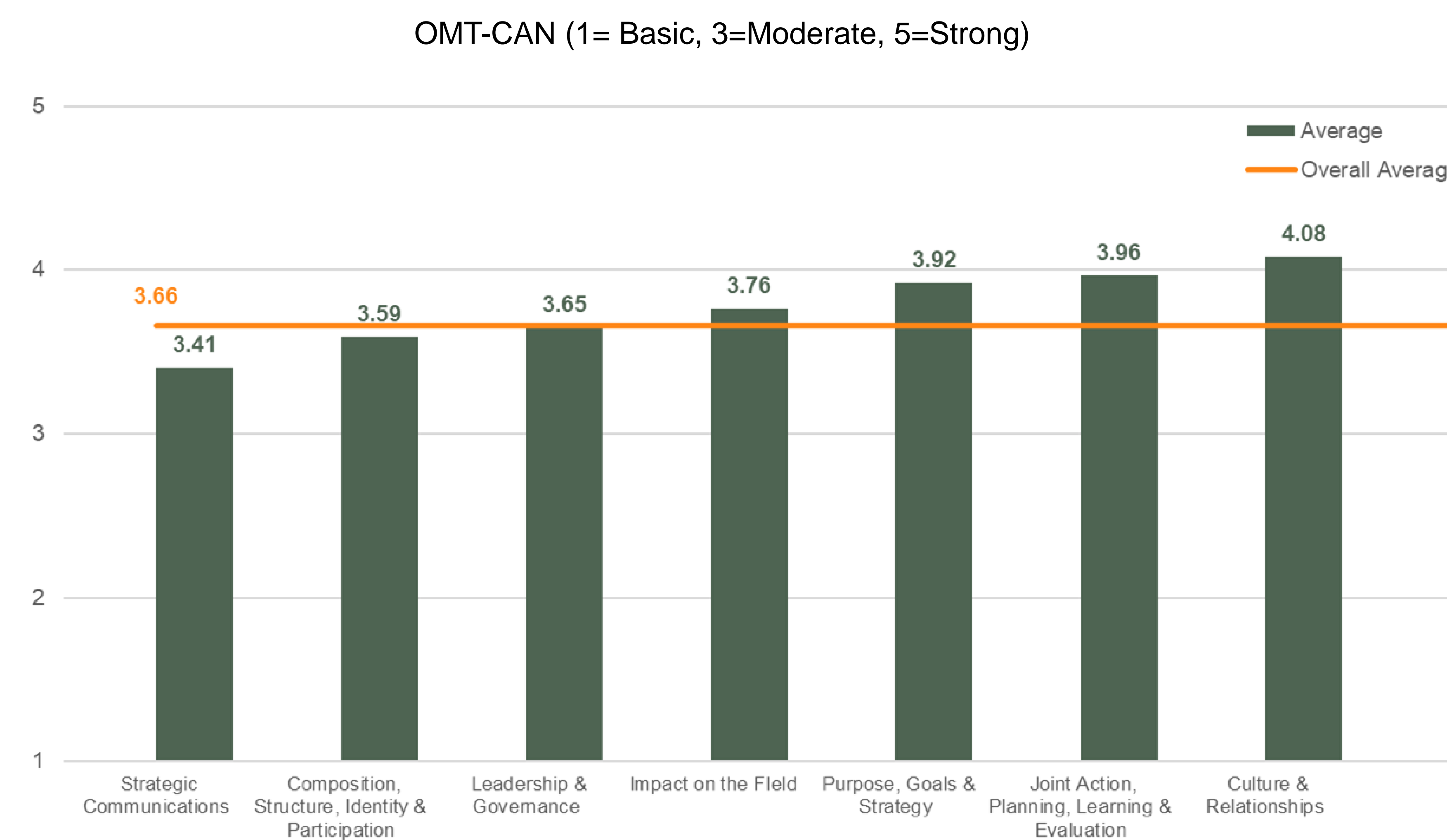### Transdisciplinary Learning Environment

The Transdisciplinary Learning Environment Partner Survey, grounded in the Wilder Collaborations Factor Inventory and Harvard Business Review, "Is Yours a Learning Organization," is administered to teams at 6-months and then annually, thereafter. It measures the team environment necessary for successful TD collaboration. This tool is used by Facilitators & Evaluators to improve team processes and by the Integration Hub to plan learning& capacity-building opportunities.

Subscales:
- Supportive Learning Environments (13 items)
- Process & Practices for Learning (15 items)
- Leadership for Learning (8 items)
- Shared Mental Models (6 items)
- Deep Equity Practices (2 items)

RESULTS:

Network Sustainability. CCSN Network Leaders (N=21) completed the OMT-CAN. A moderate to strong rating indicate assets that can be leveraged for sustainability while a basic to moderate rating reflects areas where more attention is needed. The assessment indicated CCSN is moderate to strong in culture & relationships; joint action, planning, learning and evaluation; and in purpose, goals & strategy. CCSN scored basic to moderate in the need for a clearer composition, structure, identity and participation; its capacity for strategic communication; and in advocacy and organizing.

OMT-CAN (1= Basic, 3=Moderate, 5=Strong)

Strategic Communications	Composition, Structure, Identity & Participation	Leadership & Governance	Impact on the Field	Purpose, Goals & Strategy	Joint Action, Planning, Learning & Evaluation	Culture & Relationships
3.41	3.59	3.65	3.76	3.92	3.96	4.08

Overall Average: 3.66

OMT-CAN Highest Ranked Item:
Purpose, Goals & Strategy Subscale (Power & Privilege Dimension)
These results reflect CCSN's purpose and strategies which seek to eliminate adverse impacts on marginalized groups, create equity and inclusion (on issues such as gender, class, race, disability, etc.) and ensure power is distributed more equitably. — 4.36

OMT-CAN Lowest Ranked Item:
Strategic Communications Subscale (Narrative Shaping Dimension)
These results reflect CCSN's ongoing challenges with framing and narrative development. Thus, we identified strategies to address this in our planning, programs and communications. For example, we are offering storytelling training to our network and expanding our communications outreach. — 2.96

Transdisciplinary Learning Environment. Project team members across eight projects (N=62) completed the Partner Survey. Projects scored in the highest quartile in psychological safety, appreciation of differences, and leadership composition. Learning environments were also supportive of deep equity and development of shared mental models. To note, scores of 4.0 or higher reflect strengths within the collaboration.

Learning Environment Performance Benchmarks

	CCSN Score	Median	Third quartile	Top quartile
Supportive Learning Environment				
Psychological Safety	88	76	77-86	87-100
Appreciation of differences	88	64	65-79	80-100
Openness to new ideas	92	90	91-95	96-100
Concrete Learning Practices				
Experimentation	81	71	72-82	83-100
Information Collection	87	80	81-89	90-100
Analysis	80	71	72-86	87-100
Information Transfer	80	71	72-84	85-100
Leadership That Reinforces Learning				
Leadership Composite	93	76	77-82	83-100

Deep Equity (scale 1 -7: highly inaccurate to highly accurate)	Mean	SD
This team regularly engages in cross-cultural literacy development.	5.80	1.24
This team has an approach to help it determine how its ideas or solutions may impact different groups in different ways.	5.75	1.31
Shared Vision (scale 1 – 5: strongly disagree to strongly agree)		
The people on this team are dedicated to the idea that we can make this project work.	4.78	0.45
My ideas about what the team wants to accomplish seem to be same as the other team members' ideas.	4.16	0.88
Shared Mental Models (scale 1 – 5: strongly disagree to strongly agree)		
I have a clear understanding of what our collaboration is trying to accomplish.	4.07	0.91
People in our collaborative group know and understand our goals.	4.13	0.92
People in our collaborative group have established reasonable goals.	4.11	0.90
The time invested in this team is worth the effort.	4.62	0.66

CONCLUSIONS

An equitable transdisciplinary approach to addressing cancer disparities is a new praxis in academic medicine. To integrate social and scientific problem-solving and address cancer disparities requires resourcing of credible capacity - building networks that can broker equitable relationships between academic medicine and community members and organizations. The CCSN Integration Hub offers a strong model embedded within a network that accomplishes those goals. For more information, visit ccsnwi.org.