



Select Standing Committee on Finance and Government Services: Budget 2020 Consultation Submission

June 19, 2019

The British Columbia Schizophrenia Society (BCSS) urges the Select Standing Committee on Finance and Government Services (the Finance Committee) to prioritize investing in acute and tertiary care psychiatric beds, community services and supports for at-risk youth, family members and caregivers of individuals living with schizophrenia and severe mental illness, and public education to reduce the stigma surrounding mental illness. These investments not only make good fiscal sense but demonstrate how this government values the mental health and well-being of British Columbians.

About Schizophrenia and Severe Mental Illness

Schizophrenia is a serious but treatable mental illness affecting 1% of Canadians – close to 50,000 British Columbians.ⁱ Schizophrenia commonly strikes young women and men between 18 to 35 years of age, robbing our youth of a bright future.ⁱⁱ

Chronic and severe mental health disorders affect how a person thinks, feels and behaves – from positive symptoms such as hallucinations to negative symptoms such as social withdrawal and thought disorder. Concurrent disorders are also common. Approximately 50% or half of all youth living with schizophrenia will develop a substance use disorder.ⁱⁱⁱ Individuals with schizophrenia face 3 times the risk of alcohol use disorders and 5 times the risk of drug use disorders than the general population.^{iv}

When youth and families living with individuals with schizophrenia and severe mental illness issues are in crisis, they turn to British Columbia Schizophrenia Society (BCSS) for support, resources and answers. BCSS is the only non-profit organization in the province providing programs and supports for families and caregivers impacted by schizophrenia; public education to reduce severe mental illness stigma; and through the British Columbia Schizophrenia Society Foundation (BCSS Foundation), supporting research to find the answers to this devastating mental illness. BCSS is made up of a provincial office (BCSS) with 26 regional educators and eight branches providing local, community-based services across the province.

Recommendations

BCSS was grateful for this government's creation of the Ministry of Mental Health and Addictions in 2017 and the commitments your government has made to date to improve the access and quality of mental health and addictions services for children, youth and adults. Our recommendations outline several ways to further improve the quality of life of at-risk youth, families and caregivers of those living with severe mental illness.

1. Increase funding for additional acute and tertiary care psychiatric beds throughout the province.

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman
Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCPC
Diane McIntosh
MD, FRCPC
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCPC



2. Increase funding for family and caregiver support services and education in the community.
3. Increase funding for community-based mental health services and supports for youth at-risk of severe mental illness and with family members living with schizophrenia and severe mental illness.
4. Expand education and access to resources about schizophrenia and severe mental illness to reduce stigma and discrimination.

The Need for Investment

Lacking, inappropriate, or poor treatment and care for mental health problems and illnesses have significant implications for Canada's economy. The total cost from mental health problems to the Canadian economy exceeds \$50 billion annually (2017).^v Schizophrenia has been shown to have the highest physician, hospital, prescription medication and psychiatric costs compared to other mental illnesses, with total direct and indirect costs of schizophrenia, including lost productivity, estimated to be as high as \$6.85 billion.^{vi}

The risks associated with persistent barriers to accessing timely mental health care and supports for individuals and their families with schizophrenia and severe mental illness have profound effects on individuals, the community and impose significant strains on BC's health care, social services and criminal justice systems.

There are solutions.

Research shows effective health and social supports within the community, and a comprehensive network of support, education and information for family members, caregivers and clients or people with lived experience, can decrease the need for frequent ER visits and costly hospital stays for those with severe mental illness, improve social supports, decrease the incarceration rates of those with mental illness, and reduce the stigma around mental illness.^{vii}

With the 2020 budget, the Government of British Columbia has an opportunity to create transformative and substantial change by enhancing investments in support and education to at-risk youth, families and their ill relatives, and in increasing public awareness and understanding of severe mental illness.

Recommendation #1: Increased funding for additional acute and tertiary care psychiatric beds throughout the province.

Barriers to accessing timely mental health care and supports is having a profound effect on individuals, the health system, the social and criminal justice systems and the community. There is an over-reliance on emergency room visits and hospital beds to treat mental health crises.

- Individuals with schizophrenia and psychosis make up 35% of hospital emergency department visits in B.C.^{viii}
- In 2017-2018, schizophrenia ranked 9th in the top 10 most responsible diagnosis for inpatient acute hospitalizations in BC, representing 1.8% of hospitalizations.^{ix}

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman

Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCP
Diane McIntosh
MD, FRCP
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCP



- Acute inpatient hospital stays for schizophrenia patients is 16.8 days in BC (2017-2018), more than double the average length of stay (7.28 days) of all the other top 10 inpatient diagnoses.^x
- In BC, 13.1% of patients with mental illness had repeat hospitalizations (3 or more in a single year) in 2017-2018, higher than Alberta (10.2%) and Ontario (12.7%)

We know that frequent visits to ERs, repeat hospitalizations and extended hospital stays reflect the challenges individuals and their family members face in getting appropriate care, medication and support in the community. Yet BC lacks in-hospital psychiatric beds to deal with patients in mental illness crisis. There were 26 beds for every 100,000 people in B.C. in 2014-2015, down from 30 beds per 100,000 in 2006-07.^{xi}

Solutions

Psychiatric emergencies can be prevented or mitigated with better access to more appropriate care. Increased funding for acute and tertiary care psychiatric beds will relieve the pressures on BC's emergency departments and hospital beds, enabling those with schizophrenia and severe mental illness to get the help they need outside of our ER's.

The re-opening of Riverview Hospital with 105 beds is a good start but it will only provide for 11 additional psychiatric beds in the system. More beds are needed to meet the need. BCSS is leading an initiative, in partnership with the BC Psychiatrists Association other patient and health care provider organizations, to review and make recommendations on the number of psychiatric beds needed throughout the province. Together, we can work to offer appropriate, cost-effective and humane care for those living with schizophrenia and severe mental illness.

Recommendation #2: Increase family and caregiver support services and education in the community for schizophrenia and severe mental illness.

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman
Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Family members and caregivers of those living with schizophrenia and severe mental illness are a tremendous asset to the BC economy. Research shows the unpaid care and support provided by family caregivers makes a major contribution to the health and social service systems - costly services to replace with paid formal care.^{xii}

Gaps in institutional care and the shift in care from psychiatric hospitals to outpatient treatment, community services and informal caregivers has increased the burden placed on families and caregivers.^{xiii} A study found 72% of family caregivers felt there was no other option but for them to provide care due to the lack of home care or mental health services.^{xiv} Family caregivers monitor symptoms, medications, and manage problematic behaviors and crises. They provide emotional and financial support, and coordinate shopping, banking, bill payment, meal preparation and housekeeping for their ill family members.^{xv}

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCPC
Diane McIntosh
MD, FRCPC
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCPC

Caregiving takes its toll – family members report significantly higher rates of daily stress, trauma, a lack of personal and social resources, ongoing uncertainty and unpredictability in their lives, family disruption, and conflict in interpersonal relationships.^{xvi xvii} Family caregivers pay a financial price too – incurring major



financial costs and some missing as much as 30 days of work due to schizophrenia caregiving responsibilities.

xviii xix

Solutions

Well-supported family caregivers can play a facilitative role in the recovery journey of their ill relative, in the improvement of their quality of life and in their inclusion in all aspects of community life. Adequate support can mitigate the stressors often associated with caregiving.^{xx} Behavioral family management, psychoeducational family intervention, and family therapy have been shown to improve caregiver coping skills and reduce the impact of caregiving.^{xxi}

To help ensure families and caregivers can continue to fulfill the vital role they play in the health and social service systems of their loved ones with severe mental illness, BCSS is calling on the provincial government to target funding to increase support programs and services for caregivers of adults with severe mental illness; increase community programs and family interventions; and increase respite services for family members. BCSS' range of programs and services have been designed specifically to help families and caregivers better cope and care for their loved ones, such as family support groups, programs like Strengthening Families Together and Strengthening Families Together – First Nations, and family respite.

Recommendation #3: Increase funding for community-based mental health services and supports for youth at-risk of severe mental illness who have family members with schizophrenia.

Our youth are at-risk. We know the highest rate of mental health problems and illnesses is among young adults ages 20 to 29, in the prime of life when young people are generally beginning post-secondary education and careers.^{xxii} Schizophrenia strikes hardest and most commonly in young women and men between 18 to 35 years of age.^{xxiii}

BC's youth living with schizophrenia are disproportionately impacted by suicide. Youth with schizophrenia account for 1 in 5 suicide cases between the ages of 25 and 34, compared to 1 in 10 cases in the general population.^{xxiv} Approximately 10% to 15% of individuals with schizophrenia will commit suicide, often within the first ten years of onset, while approximately 40 to 60% of individuals with schizophrenia attempt suicide.^{xxv}

What's more, children and youth with immediate family members (e.g. parent, sibling) with schizophrenia or severe mental illness are 10 times more likely than the general population to develop schizophrenia, and children of two parents with schizophrenia have a 40% chance of developing the disorder.^{xxvi} A BC study found that 12% of students age 12-17 surveyed were in a caregiving role. Young carers may experience feelings of stigmatization and social isolation. Those caring for a parent living with a mental illness may experience high levels of anxiety due to the unpredictability of their lives and the potentially unstable nature of the parent's illness.^{xxvii}

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman
Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCPC
Diane McIntosh
MD, FRCPC
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCPC



Solutions

BCSS urges investment in community support services for at-risk youth, especially youth living with and/or acting as caregivers for family members with schizophrenia and severe mental illness. Research shows investment in peer support services can lead to an average reduction in length of hospital stays by 9.8 days per hospital site, with an estimated savings of \$3 million per hospital.^{xxviii}

BCSS’s Kids in Control and Teens in Control programs are free education and support programs targeting children and youth (8-18 years) who have a family member with a mental illness (e.g., schizophrenia, major depression). The programs are prevention-focused and aim to foster resilience. They provide children and youth with opportunities to practice healthy coping strategies, better understand mental illness and connect with peers who have similar experiences.

BCSS also offers the ReachOut Psychosis program that tours secondary schools throughout the province. The program uses music, conversation and audience participation to help students, teachers and counselors identify and access help for youth with emerging schizophrenia, psychosis or other mental illness issues.

By investing in and expanding access to peer support and educational program like Kids in Control and Teens in Control and the ReachOut Psychosis program, we can provide our youth with the resources and support they need to reach their full potential.

Recommendation #4: Expand public education programs about schizophrenia and severe mental illness to reduce stigma and discrimination.

Stigma is one of the most prominent social challenges affecting people with schizophrenia and mental illness in general.^{xxix} Nearly 40% of people with mental health issues report experiencing stigma – three times the rate of stigma faced by those without mental health issues.^{xxx} Public attitudes and beliefs, often based on fear and misunderstanding, stereotype individuals with mental illness and expose them to prejudice and discrimination.

Stigma undermines self-worth and health, and it plays a major role in limiting access to care and creating barriers to accessing services, employment, housing, and community and social supports.^{xxxi} Studies report stigma as one of the single greatest barriers to employment and housing for individuals with schizophrenia.^{xxxii}

A 2009 global study found that people suffering from schizophrenia reported experiencing discrimination in all aspects of their lives: 47% were affected by negative discrimination in making or keeping friends; 29% felt discriminated against by family members; 29% felt they were unfairly judged by employers; 64% anticipated they would be discriminated against in applying for work, training or education; and 72% felt they needed to hide their illness.^{xxxiii}

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman
Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCPC
Diane McIntosh
MD, FRCPC
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCPC



Solutions

We can improve the state of mental illness understanding and acceptance among the general population by investing in public education programs and awareness-raising campaigns to break down the barriers and bring greater awareness to mental illness issues.

BCSS is dedicated to increasing public awareness and understanding of schizophrenia, psychosis and other severe and persistent mental illnesses. This includes education for elementary and secondary school students, family members, professionals and the general public. Our public awareness-raising programs include our Partnership Education Program- a three speaker guest panel presentation to various groups, from community groups to schools to private organizations. We also offer the Puppet Education Presentation Program – a free public education program for children in British Columbia in grades 4 and 5 providing information to dispel the myths and misunderstandings about mental illness. Finally, our information and awareness-raising written resources like BCSS' *"Basic Facts about Schizophrenia"* to facts sheets and pamphlets, to our website and newsletter, BCSS is a leading provincial voice for information on schizophrenia and mental illness.

Conclusion

For more than 35 years, BCSS has and continues to support, educate and advocate on behalf of families with schizophrenia and severe mental illness. The success of this work has been largely due to partnerships with the provincial government, health authorities, non-profit organizations and individuals.

We believe this provincial government's commitments to a new mental health and addiction plan are a positive step for those with mental health and substance-use related illnesses. We urge the Finance Committee to continue this direction with new and greater investments in psychiatric care beds, in community support and educational services for family caregivers and for youth at-risk, and finally, in public education to reduce the stigma and discrimination that comes with mental illness.

Yours truly,

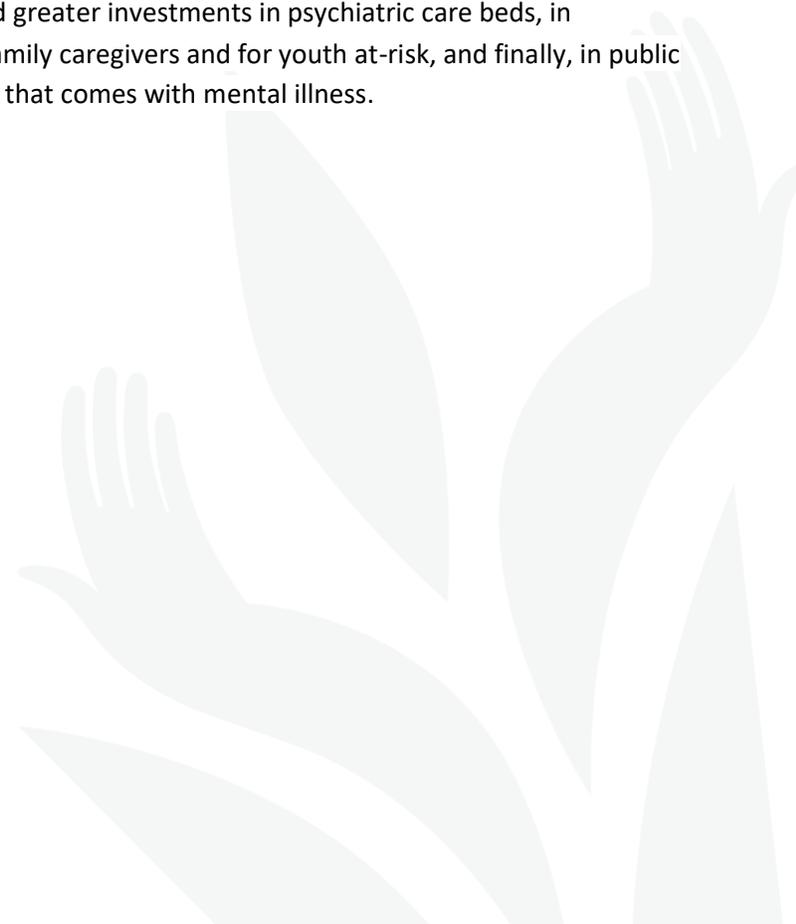
British Columbia Schizophrenia Society

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman
Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCPC
Diane McIntosh
MD, FRCPC
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCPC





References

- ⁱ Statistics Canada. Accessed online: <https://www150.statcan.gc.ca/n1/pub/82-619-m/2012004/ref-eng.htm#n132>
- ⁱⁱ Gogtay, N., Vyas, N. S., Testa, R., Wood, S. J., & Pantelis, C. (2011). Age of onset of schizophrenia: perspectives from structural neuroimaging studies. *Schizophrenia bulletin*, 37(3), 504–513. doi:10.1093/schbul/sbr030
- ⁱⁱⁱ Volkow N. D. (2009). Substance use disorders in schizophrenia--clinical implications of comorbidity. *Schizophrenia bulletin*, 35(3), 469–472. doi:10.1093/schbul/sbp016
- ^{iv} Volkow N. D. (2009). Substance use disorders in schizophrenia--clinical implications of comorbidity. *Schizophrenia bulletin*, 35(3), 469–472. doi:10.1093/schbul/sbp016
- ^v 2017 Mental Health Commission of Canada. Strengthening the Case for Investing in Canada's Mental Health System: Economic Considerations https://www.mentalhealthcommission.ca/sites/default/files/2017-03/case_for_investment_eng.pdf
- ^{vi} Schizophrenia Society of Ontario.(2019). Schizophrenia Society of Ontario's submission to the Ontario Legislature's Standing Committee on Finance and Economic Affairs.
- ^{vii} Stephenson MD, Lisy K, Stern CJ, Feyer A-M, Fisher L, Aromataris EC. The impact of integrated care for people with chronic conditions on hospital and emergency department utilization: A rapid review. *International Journal of Evidence Based Healthcare*. 2019
- ^{viii} Ministry of Health. (2015). Establishing a System of Care for People Experiencing Mental Health and Substance Use Issues.
- ^{ix} Canadian Institute for Health Information.(2019). Inpatient hospitalization, surgery and newborn statistics 2017-2018. Accessed online at: <https://www.cihi.ca/en/access-data-and-reports>
- ^x Canadian Institute for Health Information.(2019). Inpatient hospitalization, surgery and newborn statistics 2017-2018. Accessed online at: <https://www.cihi.ca/en/access-data-and-reports>
- ^{xi} Canadian Institute for Health Information.(2016).
- ^{xii} MacCourt P., Family Caregivers Advisory Committee, Mental Health Commission of Canada. (2013). National Guidelines for a Comprehensive Service System to Support Family Caregivers of Adults with Mental Health Problems and Illnesses. Calgary, AB: Mental Health Commission of Canada.
- ^{xiii} Rofail, D., Regnault, A., Lambert, J., & Zarit, S. (2016). Assessing the impact on caregivers of patients with schizophrenia: Psychometric validation of the Schizophrenia Caregiver Questionnaire (SCQ). *BMC Psychiatry*, 16(1), 245.
- ^{xiv} Mental Health Commission of Canada. (2013). National guidelines for a comprehensive service system to support family caregivers of adults with mental health problems and illnesses.
- ^{xv} Health Canada. (2002). National profile of family caregivers in Canada – Final Report. Retrieved from <http://www.hc-sc.gc.ca/hcs-sss/pubs/home-domicile/2002-caregiv-interven/index-eng.php>
- ^{xvi} PEARSON, Caryn. 2015. "The impact of mental health problems on family members". *Health at a Glance*. Statistics Canada catalogue no. 82-624-X
- ^{xvii} Shiraishi, N., & Reilly, J. (2019). Positive and negative impacts of schizophrenia on family caregivers: A systematic review and qualitative meta-summary. *Social Psychiatry and Psychiatric Epidemiology*, 54(3), 277-290.
- ^{xviii} MacCourt P., Family Caregivers Advisory Committee, Mental Health Commission of Canada. (2013). National Guidelines for a Comprehensive Service System to Support Family Caregivers of Adults with Mental Health Problems and Illnesses. Calgary, AB: Mental Health Commission of Canada. Retrieved from: <http://www.mentalhealthcommission.ca>
- ^{xix} Rosenberg, M, and Hanna, K. (2012). Caregiving and schizophrenia: New survey reveals significant impact on caregivers' quality of life. Accessed online at: <http://www.schizophrenia>
- ^{xx} MacCourt P., Family Caregivers Advisory Committee, Mental Health Commission of Canada. (2013). National Guidelines for a Comprehensive Service System to Support Family Caregivers of Adults with Mental Health Problems and Illnesses. Calgary, AB: Mental Health Commission of Canada. Retrieved from: <http://www.mentalhealthcommission.ca>
- ^{xxi} MacCourt P., Family Caregivers Advisory Committee, Mental Health Commission of Canada. (2013).

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman
Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCPC
Diane McIntosh
MD, FRCPC
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCPC



National Guidelines for a Comprehensive Service System to Support Family Caregivers of Adults with Mental Health Problems and Illnesses. Calgary, AB: Mental Health Commission of Canada. Retrieved from:

<http://www.mentalhealthcommission.ca>

^{xxii} Mental Health Commission of Canada. Strengthening the Case for Investing in Canada's Mental Health System: Economic Considerations (2017). https://www.mentalhealthcommission.ca/sites/default/files/2017-03/case_for_investment_eng.pdf

^{xxiii} Gogtay, N., Vyas, N. S., Testa, R., Wood, S. J., & Pantelis, C. (2011). Age of onset of schizophrenia: perspectives from structural neuroimaging studies. *Schizophrenia bulletin*, 37(3), 504–513. doi:10.1093/schbul/sbr030

^{xxiv} Zaheer, J., Jacob, B., De Oliveira, C., Rudoler, D., Juda, A., & Kurdyak, P. (2018). Service utilization and suicide among people with schizophrenia spectrum disorders. *Schizophrenia Research*, 202, 347-353.

^{xxv} Statistics Canada. [Table 13-10-0143-01 Deaths, by cause, Chapter V: Mental and behavioural disorders \(F00 to F99\)](https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310014301) <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310014301>

^{xxvi} Chou, I-Jun, Kuo, Chang-Fu, Huang, Yu-Shu, Grainge, Matthew J, Valdes, Ana M, See, Lai-Chu, . . . Doherty, Michael. (2017). Familial Aggregation and Heritability of Schizophrenia and Co-aggregation of Psychiatric Illnesses in Affected Families. *Schizophrenia Bulletin*, 43(5), 1070-1078.

^{xxvii} MacCourt P., Family Caregivers Advisory Committee, Mental Health Commission of Canada. (2013). National Guidelines for a Comprehensive Service System to Support Family Caregivers of Adults with Mental Health Problems and Illnesses. Calgary, AB: Mental Health Commission of Canada. Retrieved from:

<http://www.mentalhealthcommission.ca>

^{xxviii} Schizophrenia Society of Ontario.(2019). Schizophrenia Society of Ontario's submission to the Ontario Legislature's Standing Committee on Finance and Economic Affairs.

^{xxix} Schizophrenia in Canada: The Social and Economic Case for a Collaborative Model of Care. (2014). Public Policy Forum.

^{xxx} Livingston, J. et al. (2012). The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. *Addiction*. 107:1.

^{xxxi} Livingston, J. et al. (2012). The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. *Addiction*. 107:1.

^{xxxii} Stephen Bevan, Jenny Guilford, Karen Steadman, Tyna Taskila, Rosemary Thomas and Andreea Moise. (2013) *Working with Schizophrenia: Pathways to employment, recovery and inclusion*. The Work Foundation. Accessed online at: http://www.theworkfoundation.com/DownloadPublication/Report/330_Working_with_Schizophrenia.pdf

^{xxxiii} G. Thornicroft, E. Brohan, D. Rose, N. Sartorius, M. Leese. (2009). Global pattern of experienced and anticipated discrimination against people with schizophrenia: a cross-sectional survey. *Lancet*. Accessed online at: <http://www.ncbi.nlm.nih.gov/pubmed/19162314>

Society Board Members

David Halikowski
Erin Berger
Paul Bhushan
Lena Bortnick
Colleen Crossley
Fred Dawe
Jamie Graham
Dr. John Gray
Susan Inman
Matthew Langlois
Joanne Leung
Don Monsour
Donna Motzer
Gerhart Pahl

Medical Advisory Board

William G. Honer
MD, RCPC
Bill MacEwan
FRCP
Diane McIntosh
MD, FRCP
Anthony Phillips
PhD, FRSC
Deborah L. Thompson
BScPharm, PharmD, BCPP
Randall White
MD, FRCP