A

Evaluation of Medicine and Health (EVALMEDHELSE) 2023-2024

Self-assessment for research groups

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1. Organisation and strategy

1.1 Research group's organisation

Describe the establishment and the development of the research group, including its leadership (e.g. centralised or distributed etc.), researcher roles (e.g. technical staff, PhD, post docs, junior positions, senior positions or other researcher positions), the group's role in researcher training, mobility and how research is organised (e.g. core funding organisation versus project based organisation etc.).



The research group originated with the start of the first TIPS-study. This was a quasi-experimental study investigating to what degree an intervention designed and implemented to reduce the Duration of Untreated Psychosis (DUP) could improve outcomes in first-episode psychosis. Massive multi-level multi-focus information campaigns were combined with a no-threshold detection team to make specialized psychosis treatment available and accessible as early in the disorder as possible. A representative catchment-area based epidemiological sample was recruited from 1997-2000 and followed for twenty years. This twenty-year follow-up will be completed in 2024. The group has been fully integrated in clinical practise from the start, and has, over the years, attracted many researchers to form the core of the TIPS Centre for Clinical Research in Psychosis. Today this centre consists of an outpatient clinic supporting carers and families of those suffering from psychosis or psychosis risk, the early detection team, and the research group with affiliated researchers. The family outpatient clinic (2fte plus 50 Family Psycho-educators providing psycho-educational interventions for families of patients) and the detection team (4,5 fte) collect and provide data for research. The core research group is small and are formally employed at TIPS (3fte). Affiliated researchers include four professors, three researchers with PhD qualification, two postdocs, four junior researchers on a master-degree level of whom one is a lived experience research consultant, and four PhD-students. The permanent research positions, comprising all except PhD-students and Postdocs, are funded by Stavanger University Hospital.

TIPS Centre for Clinical Research in Psychosis (hereafter: TIPS) is integrated in Mental Health Care services at Stavanger University Hospital. As the hospital is catchment area based and publicly funded, with no private providers in the area, TIPS has unique access to clinical, functional, and biological data on all new incidence cases of psychosis and psychosis risk. The detection team are highly specialized nurse clinicians screening all new cases for psychosis and psychosis risk and inviting eligible patients to participate in studies. Since TIPS' start in 1996, more than 1000 patients have been screened, assessed, and followed up.

Work by TIPS has contributed to the development of national guidelines for the assessment and treatment of psychosis, the establishing of a national psychiatric registry for adult mental health care, the establishing of TIPS-teams throughout Norway and Sweden, and education and training in psychiatry and clinical psychology.

Table 1. List of number of personnel by categories

Instructions: Please provide number of your personnel by categories.

For institutions in the higher education sector, please use the categories used in DBH,

	Position by category	No. of researcher per category	Share of women per category (%)	No. of researchers who are part of multiple (other) research groups at the admin unit	No. of temporary positions
No. of Personnel	Senior physicians	3	33,3%	0	0
by position	Senior psychologists	2	50%	0	0
	Psychologists	2	0%	0	0
	Senior psychiatric nurse	1	0%	0	0
	Postdoc	1	0%	0	1
	Position E: PhD- students	4	50%	0	4
	Position F: Research support	4	75%	0	0
	Position G: Administrative support	1 (0,5 fte)	100%	0	0

https://dbh.hkdir.no/datainnhold/kodeverk/stillingskoder.

1.2 Research group's strategy

a) Describe the research group's main goals, objectives and strategies to obtain these (e.g. funding, plans for recruitment, internationalization etc.) within the period 2012-2022.

The overarching goal for the group has been to provide research informing earlier diagnosis and better treatment of severe psychotic disorders. Guiding objectives have been: a) Improving early detection and intervention through developing and implementing updated early detection strategies, including digitalized information channels b) Improvement of the predictive power of clinical high-risk symptoms for psychosis to severe illness using clinical assessments, blood sampling and imaging c) Investigating treatment outcomes in clinical high-risk symptoms and first episode psychosis.

Plans for recruitment: Recruiting PhD-candidates and researchers from Universities of Stavanger and Bergen, the latter through "Vestlandslegen", as well as internal recruitment from the hospital.

Internationalization: TIPS contribute to internationalization of Health West research in psychiatry through specific research collaborations and through exchange visits. <u>Specific collaborations include</u>:a) As comparison site: TOPUS TIPS Early Detection replication in Denmark replication, under the

umbrella of the OPUS Early Treatment in Schizophrenia umbrella **b)** In reference group: TOPS Early Detection replication, Psykiatrien Region Sjælland, Denmark c) In reference group: Mindmap campaign for Early Detection of Psychosis, New Haven Connecticut, Yale Medical School/ STEP specialized treatment in early psychosis. d) External consultants to the La CLAve study aiming to reduce the duration of untreated psychosis (DUP) in a U.S. Latinx community, Los Angeles, USA. e) TIPS was represented when Stavanger University Hospital signed an MOU with King's College London, and collaborates with the Institute of Psychiatry, Psychology and Neuroscience on Trauma and Psychosis (collaboration with professor Helen Fisher, King's college) and Virtual Reality Assisted CBT in Individual Placement and Support for Psychosis (School- and JobPrescription) (professor Lucia Valmaggia, King's College London until 2023) f) 2015-2019: Lead in international research network on Individual Placement and Support in Education; development and testing of a fidelity scale. Members: Mental health at Vivantes, Berlin; OPUS early treatment in schizophrenia, Copenhagen; Trimbos Institute for mental health, the Netherlands; UCLA, USA; King's College London/Outreach as Support in South London (OASIS), UK and the Healthcare Institution of West Iceland and g) 2020- p.t.: ENIGMA Clinical high-risk working group investigating structural brain alternations in those at clinical high risk for psychosis.

<u>Visiting researcher/professors and exchange visits include</u> (among others): **a)** 2010-2018: Helen Stain, visiting professor from Durham University and Leeds University, UK; **b**) 1996-2015: professor Thomas McGlashan, Yale Medical School; **c)** 1996-p.t.: Professor Patrick McGorry; University of Melbourne/Orygen Centre of Excellence in Youth Mental Health; **d)** 2018: Study visit from Dr Stefania Tognin, King's College London; **e)**2022: study visit from PhD-student Anne Sturup, OPUS/University of Copenhagen; **f)** 2018: Research exchange Melissa Weibell, PhD-student to Orygen Centre of Excellence in Youth Mental Health, Australia

b) Please describe the benchmark of the research group. The benchmark for the research group should be written by the administrative unit in collaboration with the research group. The benchmark can be a reference to an academic level of performance (national or international) or to the group's contributions to other institutional or sectoral purposes.

Research Group and Resources

- 1. Advancing two female ass.professors to full professorship within 2025
- 2. Establishing collaborative infrastructure with the University of Stavanger for the experimental investigation of pathology-specific (negative) symptoms.
- 3. At all times offering least three PhD-candidates and two post-docs.
- 4. Implementing blood sampling for genetic and somatic analysis of all new patients presenting to in-patient mental health care at Stavanger University Hospital regardless of diagnosis for cross-diagnostic comparisons.

Scientific

- Publishing at least twenty peer-reviewed scientific papers per year according to the following key: 15 papers primary research (basic research, clinical research, epidemiological research) and 5 secondary research (reviews, meta-analyses).
- 2. Recruitment of 75% of eligible new cases of first episode psychosis (approx. 30 per year) and clinical high-risk (approx. 50 per year based on previous experience) for research.
- 3. Keeping the Duration of Untreated Psychosis (DUP), median length, below eight weeks in the catchment area

- 4. Retaining 75% of recruited and included patients for a five-year follow-up period.
- 5. At all times being part in at least three international collaborations.
- 6. Maintain publishing quality with more than 25 per cent in level 2 journals and more than 50 per cent international co-authorship.

Education

7. Continue to contribute to education at the host institution as well as at universities of Stavanger and Bergen

Economic

- 8. Increase external research funding by 50% 2024-2029
- 9. Participate in at least one NFR or EU project within that time-frame

User involvement

- 10. Expanding lived experience contribution by adding one extra affiliated service user consultant.
- c) Describe the research group's contribution to education (master's degree and/or PhD).

2014 "Early detection and intervention in psychosis" **2017** "Factors facilitating recovery in first episode psychosis" **2019** "Adherence to treatment with antipsychotics in patients with first-episode psychosis: A multi-method approach". **2019** "Substance use and first-episode psychosis: Treated incidence of substance-induced psychosis and the impact of substance use on long-term course and outcome in psychosis." **2020** "Cognitive change in psychosis." **2022** "Psychotic depression and suicide risk. A mixed methods study." **On-going** (start before 2022): "Antipsychotic medication in first episode psychosis development"; "Collaborative care provision in severe mental illness"; "Leadership for implementation of evidence-based clinical practice in mental health services"; "Electroconvulsive therapy in severe depressive disorders".

Master's degrees: "Visual Hallucinations in Psychosis", "Premorbid functioning and trauma in psychosis", Nicolas Romero "IPS for education in psychosis", "Psychosis NOS and gender"; "Pathways to care in young men with clinical high risk and psychosis".

Combined residency in psychiatry and research 2022-: "Diagnostic drift in clinical care for persons with psychosis".

University of Stavanger: PhD-courses methods in research (Tore Tjora, Wenche ten Velden Hegelstad, Jone Bjørnestad); PhD-courses in didactics (Jone Bjørnestad); Master courses in Health Sciences (Inge Joa, Johannes Langeveld), in Substance Abuse and Psychiatry (Inge Joa, Johannes Langeveld) and in "Relational work in mental health care" (Jan Olav Johannessen, Inge Joa, Johannes Langeveld); Bachelor courses in psychology (Wenche ten Velden Hegelstad, Liss-Gøril Ågotnes Anda, Jone Bjørnestad, Tore Tjora), in nursing (Inge Joa, Melissa Weibell) and paramedics (Melissa Weibell, Wenche ten Velden Hegelstad), in child protection work, and in social work (Tore Thora, Jone Bjørnestad). **University of Bergen:** Didactics for ass.professors and professors (Melissa Weibell); Scientific writing and publishing of scientific papers (Inge Joa); "Psychotic disorders" for professional training in clinical psychology (Wenche ten Velden Hegelstad).

Health West: Contribution to "Regional training for psychiatrists" (Melissa Weibell); clinical supervision psychologists (Wenche ten Velden Hegelstad, Johannes Langeveld), psychiatrists (Melissa Weibell), and psychiatric nurses (Inge Joa); training in diagnosis and treatment of (severe) mental illness at Stavanger university Hospital (Wenche ten Velden Hegelstad, Melissa Weibell, Inge Joa, Johannes Langeveld, Jan Olav Johannessen) ; training in cognitive (neuropsychological) assessments in severe mental illness (Wenche ten Velden Hegelstad)

Norwegian psychological association: Training of psychologists in diagnosis and treatment of psychosis (Wenche ten Velden Hegelstad, Jone Bjørnestad)

Norwegian psychiatric Association: Basic training in psychiatry (Melissa Weibell, Jeanette Bjørke)

d) Describe the support the host institution provides to the research group (i.e., research infrastructure, access to databases, administrative support etc.).

Out host institution provides us with several infrastructures:

- Early detection and intervention strategies are funded by Stavanger University Hospital with 1 million NOK/year. They are implemented by TIPS early detection and Intervention in PSychosis and are effective in preventing poor outcomes through the reduction of Duration of Untreated Psychosis (DUP). These strategies, consisting of multi-level multi-focus information campaigns have found a large national and international following and constitute a robust evidence base.
- 2. A multi-disciplinary early detection team consisting of clinical psychologists, psychiatrists, and highly trained psychiatric nurses (8,7fte in total) employed by the hospital with access to full catchment area based epidemiological samples of first episode psychosis (FEP). Their data collection forms an excellent basis for the scientific study of psychosis and schizophrenia.
- **3.** The research group includes a 0,5 fte administrative support worker (secretary) and a 0,5 fte information campaign strategist.
- 4. Clinical research unit: Infrastructure for storage of biological samples (local general biobank)
- 5. Computers, software, IT-support, office locations, and full access to all relevant data bases.
- **6.** Training in <u>Good Clinical Practice</u> (GCP) to ensure adherence to ethical and scientific standards.
- 7. Legal assistance preparing and negotiating agreements with collaborators.
- 8. Access to the national network for clinical research NORCRIN
- 9. Statistical expertise

1.3 Relevance to the institutions

Describe the role of the research group within the administrative unit. Consider the research group's contribution towards the institutional strategies and objectives and relate the research group's benchmark to these.

The TIPS group has significantly contributed to improve mental health care for persons suffering from psychosis and has played an important part in the transition from "late" to early treatment of these disorders nationwide but also internationally.

Out host institution state in their research strategy that research should "...work towards **closer collaboration on research and innovation throughout the region** to in partnership contribute to new knowledge and resource creation for the benefit of patients and with a focus on quality, ethics and integrity". Stavanger University Hospital further specify that "Research at SUS **should be an integral part of diagnostics and patient treatment at all hospital units**". Both strategies emphasize the need for extended international partnership and collaboration.

TIPS Clinical Research in Psychosis is fully integrated in mental health care provided by Stavanger University Hospital. All new incident cases of first episode psychosis or psychosis risk are referred to the TIPS early detection team for assessment and are invited to participate in research. The assessments are an integral part of and are essential to best clinical practice for assessment, diagnostics and forming individualized treatment plans for all patients suffering from psychosis or clinical high risk for psychosis in our health care catchment area regardless of consenting to participate in research. TIPS provides education in assessment and diagnostics of severe psychopathology throughout the clinics for mental health care (adults and child- and adolescent).

TIPS leads several locally initiated research projects and is part in several regional, international and national multi-site studies. TIPS is also part of PsykNett Vest, led by one of our researchers. PsykNett Vest is a research network within mental health comprising all the health trusts in Western Norway. Internationally, TIPS is part in the TOPUS (part of <u>OPUS</u> [site in Danish]) international study of early detection and intervention in Psychosis led from Denmark and of the <u>ENIGMA</u> working group in Ultra High Risk for Psychosis, and the development of a <u>cardiovascular risk calculator</u> for individuals who use anti-psychotic medication, led by the University of Cambridge (UK). In 2022, TIPS Clinical Research in Psychosis published 19 papers in international, scientific journals and had seven PhD-students affiliated with the group and 87 in total between 2012 and 2022.

1.4 Research group's resources

Describe the funding portfolio of the research group for the last five years (2018-2022).

2020-2023: Postdoc 1: 70%, funded by the University of Stavanger

2020-2023: Postdoc 2: 30% funded by the University of Stavanger

PhD 1: funded by the University of Stavanger

Basic funding by Stavanger University Hospital: 1 million NOK /year

2021-2022: Professor/psychiatrist 20%, funding by Stavanger University Hospital

2018-2022: Professor/clinical psychologist 20%, funding by Stavanger University Hospital

2021-2022: Junior researcher/psychologist, funding by Stavanger University Hospital

2012-2014: Extrastiftelsen 750 000 NOK/year

2012-2014: Norwegian Welfare and Employment Services (NAV): 750 000 NOK/year

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	2018 (NOK)	2019 (NOK)	2020 (NOK)	2021 (NOK)	2022 (NOK)
Basic funding	1 mill				
Funding from industry and other					
private sector sources					
Commissioned research for public	Approx.	Approx.			
sector (*Health West grant 912140)	433 000	453 000	468 000	482 000	496 000
Research Council of Norway					
Grant funding from other national					
Sources (postdocs Univ. Stavanger)			1,3 mill	1,3 mill	1,3 mill
International funding e.g., NIH, NSF,					
EU framework programmes					
Other					

Table 2. Describe the sources of R&D funding for the research group in the period 2018-2022.

1.5 Research group's infrastructures

Research infrastructures are facilities that provide resources and services for the research communities to conduct research and foster innovation in their fields. <u>These</u> include major equipment or sets of instruments, knowledge-related facilities such as collections, archives or scientific data infrastructures, computing systems communication networks. Include both internal and external infrastructures.

a) Describe which national infrastructures the research group manages or co-manages.

TIPS leads the regional research network PsykNett Vest, organising PhD courses in scientific thinking and writing for candidates in psychiatry and mental health care.

The group manages a <u>local biobank</u> at Stavanger University Hospital, which in turn is part of a national biobank <u>NORSMI</u> [site in Norwegian] (Norwegian Research in Severe Mental Illness), led from Oslo University Hospital.

Blood sampling has been conducted 2012-2022 by Stavanger University Hospital's clinical research unit. However, TIPS is currently working toward an even more effective way of collecting biological data, by using the clinically standard biochemistry workers collecting samples as part of their everyday standard clinical work. The aim is to integrate biological sampling from clinical care with research purposes. All samples will be stores at the TIPS local biobank on site. TIPS is also represented in the board of NORSMI, comprising mental health care and psychiatry research of all health regions (major hospitals) in Norway. NORSMI generates resources in the form of expertise and collaboration for funding applications and establishing new research collaborations as well as continuing existing research networks.

TIPS group has a unique infrastructure for collecting clinical data. It consists of a dedicated early detection team (4,5 fte) of highly trained psychiatric nurses with expertise in screening for and assessing psychosis. The team also includes clinical psychologists and consultant psychiatrists supervising diagnostic classification of psychotic disorders and clinical high risk carried out throughout Stavanger University mental health care. Weekly case meetings are used to ensure reliability of ratings, and regular reliability assessments are carried out. assessing all new cases of first episode or clinical risk for psychosis. The group disposes of assessment rooms for patient

assessments and consultations, meeting rooms with video conference equipment, and a test room for neuropsychological testing.

b) Describe the most important research infrastructures used by the research group.

See also 1.5 a). In addition, TIPS uses several national infrastructures:

- <u>NORCRIN</u> Norwegian national research infrastructure providing training for researchers and research assistants in Good Clinical Practice.
- <u>Services for sensitive data (TSD)</u>: A national platform that provides secure data collection, storage and analysis. Developed and operated by the University of Oslo.
- Norwegian Cause of Death Registry
- Norwegian Patient Registry: Treatment in state (as opposed to primary) health care
- <u>Norwegian Prescription Database</u>: Registry of all prescription drugs dispensed from pharmacies in Norway (individual patient data)
- <u>Statistics Norway</u>: Social Security and Benefits registry

1.6 Research group's cooperations

Table 3. Reflect on the current interactions of the research group with other disciplines, non-academic stakeholders and the potential importance of these for the research (e.g. informing research questions, access to competence, data and infrastructure, broadening the perspectives, short/long-term relations).

Interdisciplinary (within and beyond the group)	TIPS is an inherently interdisciplinary group consisting of all professions involved in mental health care: Psychologists, psychiatrists, nurses, physicians, and social workers. Because TIPS is a clinical research group, all professional members also hold clinical positions. All, including the lived experience consultant, have their workplace at or near the TIPS group's location. The lived experience consultant has been affiliated with the group since 2019 and has inspired and informed the perspectives on the group's research, especially contributing to finding and refining new, interesting research questions and topics. Importantly, as TIPS is a clinical research group, they are involved in the day-to-day clinical work throughout the whole of mental health care at Stavanger University Hospital. This involves assessing and diagnosing patients, partaking and providing input in patient related staff meetings, and teaching as well as supervising clinicians at the hospital. This is important for at least two reasons. First, it facilitates recruitment of all new cases of first episode psychosis and high-risk patients for research, and second, contributing to quality improvement of clinical work with
	these patients at Stavanger University Hospital.
Collaboration with other research sectors e.g. higher education, research institutes, health trusts and industry.	1) <u>PsykNettVest</u> [site in Norwegian] is a regional research network in mental health including researchers from all health trusts in Western Norway. It is led by senior TIPS researcher Inge Joa, and the board includes the general medical directors of all contributing hospitals. Besides organising scientific courses and granting startup-funds for PhD-students, PsykNettVest has between 2017- 2022 developed a national quality registry consisting of data on all

persons in Norway receiving adult mental health care (the registry
was national approved in 2023).
2) NORSMI (Norwegian Research in Severe Mental Illness) is a
national collaboration between all health regions on mental health
research. NORSMI has initiated several national multi-site studies
on sleep and mental illness, factors influencing early onset,
substance use, social functioning, physical health and activity,
psychopharmacological treatments, prevention, in addition to
cause- and mechanism studies using genetic and imaging. As
shown by the list of published papers by NORSMI, TIPS have had
active, and in several projects leading, roles.
(https://forskningsprosjekter.ihelse.net/prosjekt/2012132)
[Norwegian]
3) Oslo University Hospital, Yale medical School and the University
of Copenhagen, Denmark. The TIPS ten-year follow-up study,
published in the American Journal of Psychiatry in 2012, was a
collaboration with Oslo University Hospital, Yale Medical School,
USA and Roskilde Amtssygehus/University of Copenhagen,
Denmark. The collaboration started in 1996 and culminated in this
first early detection of first episode in psychosis long-term follow
up study on a catchment area based representative epidemiological
sample. It demonstrated how early detection and intervention can
double chances of full recovery in the long term.
4) Oslo University Hospital and TIPS started the TIPS 20-year follow-
up study in 2019, and data collection was concluded in 2023
(belated due to Covid-19).
5) Covid-19: In collaboration with TIPS South-East at Oslo University
Hospital, TIPS investigated the impact Covid-19 had on mental
health status in persons with psychosis or bipolar disorder and on
their families and carers. Results were published in 2022.
6) Bergen University Hospital, Research in psychiatric epidemiology
and health services group: the SIPEA study of Suicidality In
Psychiatric Emergency Admissions. TIPS and Stavanger University
Hospital contributed to analysis and dissemination of results.
7)University of Tromsø: Research collaboration into negative
symptoms and motivation in schizophrenia (2018-2020).
8) CEDAR-clinic at Beth Israel Deaconess Medical Center and
Harvard Medical School: Reduced expression of emotion in Clinical
High-risk of psychosis. Research collaboration, 2020.
9)ORYGEN Centre of excellence in youth mental health, Melbourne,
Australia: On-going close collaboration since 1996 in the field of
early detection and intervention in psychosis.
10) The Institute of Psychiatry, Psychology and Neuroscience at
King's College, London. Collaboration with professors Lucia
Valmaggia and Helen Fisher.
11) In 2019, TIPS started a collaboration with the University of
Stavanger Business School, developing a "light touch" psychosocial
intervention for young people Not in Employment, Education, or
Training (NEET). This enterprise was also a collaboration with the
NAV. The intervention consists of a web-based application based on
the Growth Mindset theory, stimulating active participation in

	participants' own trajectory towards education or employment in active collaboration with NAV. Participants are recruited nationally from all NAV-branches in the country. Data are being collected as of 2023.		
	1) As many persons with psychosis or psychosis risk are		
	marginalised and pushed towards unemployment and benefits		
	dependence, TIPS started a spinoff back in 2007 called Job- and		
	SchoolPresecirption delivering an intervention similar to (but avant		
	la lettre) Individual Placement and Support (IPS) in collaboration		
	with the Norwegian Employment and Welfare Services (NAV). A		
	clinical matched control study was financed by the Norwegian		
	Employment and Welfare Directorate (2012-1017) and Extrastiftelsen (2014-2016) to evaluate the intervention, which was		
Transdisciplinary (including non			
academic stakeholders)	2) Awareness- and information campaigns in the national and local		
academic stakenolders)	media are a core part of the TIPS work. Through these campaigns		
Transdisciplinary research involves	TIPS recruit persons who suffer or are at risk of a first episode of		
the integration of knowledge from	psychosis (see also impact case). Close collaboration with		
different science disciplines and (non-	traditional media (Schibsted group), local radio, and other outlets		
academic) stakeholder communities	(PR-bureaus) is important and continuous. Through Meta and the		
with the aim to help address complex	Schibsted Media Cooperation TIPS receives data on consumer		
societal challenges.	response to our advertisements.		

2. Research quality

2.1 Research group's scientific quality

Describe the research profile of the research group and the activities that contribute to the research group's scientific quality. Consider how the research group's work contributes to the wider research within the research group's field nationally and internationally.

One of the few malleable prognostic factors in psychosis and schizophrenia is the duration of untreated psychosis (DUP), a term coined and championed by TIPS. Meta-analyses have concluded that longer DUP is significantly correlated with poorer symptomatic and functional outcomes. TIPS was the first study to investigate if and to what degree DUP could be reduced, using a quasiexperimental design comparing sociodemographically similar health care regions with and without extensive early detection efforts. This was done in close collaboration with Yale medical school in USA, Oslo University Hospital (Norway) and University of Copenhagen/Roskilde Psychiatric Hospital (Denmark) (the latter two: control sites). Multi-level multi-focus awareness campaigns in Stavanger and Haugesund (experimental sites) aimed at the public, general practitioners (GPs), schools, police, welfare services and others using; radio, cinema and newspaper adverts; large bus bumper stickers; brochures/leaflets and marked merchandise (pens, post-its et cetera) were combined with a nothreshold detection team accessible by telephone all workdays. DUP at the experimental early detection site was reduced by half, symptoms and level of suicidality were significantly reduced, and chances of full recovery after ten years were doubled compared to the control sites. This accomplishment was featured on the front page of the American Journal of Psychiatry and an editorial was devoted to it. TIPS also demonstrated how a longer DUP was associated with premature death. It was the world's first study on reducing DUP and has been at the front of a paradigm shift in psychiatry internationally. Today DUP is a standard term in global psychiatry. The detection team was- and still is- a specialized team conducting screenings for and assessments of psychosis, prompting start of adequate treatment. Since the start of TIPS, PubMed lists 1104 publications with DUP in the title, compared to five the preceding 30 years. Early detection has become mainstream and several projects in the world today replicate the TIPS model, such as TOPUS in Denmark and STEP/Mindmap at Yale, USA. In addition, early detection efforts are being conducted in Canada, Singapore, Ireland, the Netherlands, and the UK. TIPS has a prominent place in local Norwegian communities, as many health care regions have now adopted the term and the method. In 2013, the Norwegian Health Directorate appointed a working group to establish Norwegian guidelines for the assessment and treatment of psychosis. One of the main founders of TIPS led the group, and early detection ad modus TIPS as well as DUP are central foci. Finally, TIPS has been the driving force behind the annual Schizophrenia Days, the largest Nordic conference in psychiatry. Today TIPS is conducting one of very few 20-year follow-up studies in psychosis. TIPS have published >150 papers on DUP and psychosis and are regularly invited to national and international conferences and symposia.

Health West has funded five PhD-studies in this project, adding to those funded by Stavanger University Hospital and by the University of Stavanger (see pt. 1.4)

Please add a link to the research group's publication list at the research group's website:

<u>TIPS - early detection and treatment of psychosis - Helse Stavanger HF (helse-stavanger.no)</u> and <u>www.tips-info.com</u>

Table 4. List of projects

Instructions: Please select 5-10 projects you consider to be representative/the best of the work in the period 1 January 2012 – 31 December 2022. The list may include projects lead by other institutions nationally or internationally. <u>Please delete tables that are not used.</u>

Project 1: TIPS Ten-year follow-up study of early detection and intervention in psychosis	Project owner(s) (project leaders organisation)	Stavanger University Hospital, Oslo University Hospital (co-leads), Zealand University Hospital (Denmark).
2009-2018	Total budget and share allocated to research group	1 million NOK for 10 years from Stavanger University Hospital; 3 phd's from Health West rà 3 million NOK in Stavanger: total 19 million NOK. 2 Phd's from Health SørØst à 3 million NOK; total: 6 million NOK.
	Objectives and outcomes (planned or actual) and link to website	Long-term outcomes after early detection of psychosis. Symptom and function outcome in early versus usual detection, depression and quality of life, cognitive functioning over time, suicidality, and mortality. Website: <u>TIPS - early detection and treatment of psychosis - Helse</u> <u>Stavanger HF (helse-stavanger.no)</u>
Project 2: Prevention of Psychosis POP	Project owner(s) (project leaders organisation)	TIPS Centre for Clinical Research in Psychosis, Stavanger University Hospital
2012-2019	Total budget and share allocated to research group	Shared budget with TIPS, in addition to 1 PhD 3 million NOK. External funding, Helse Vest & Forskningsstiftelsen DAM, running cost and 1 research nurse (2012-2017 5.15 million NOK)
	Objectives and outcomes (planned or actual) and link to website	Conversion rates from clinical high risk to psychosis; predictors of psychosis. 7-year follow-up planned, 2-year follow-up completed. Website: <u>TIPS - early detection and treatment of psychosis - Helse</u> <u>Stavanger HF (helse-stavanger.no)</u>
Project 3: TIPS Twenty-year follow-up study of early detection and intervention in psychosis	Project owner(s) (project leaders organisation)	Stavanger University Hospital, Oslo University Hospital (co-leads)

	Total budget and share allocated to research group	0,7+0,3 postdoc à 1,3 million NOK/year by University of Stavanger; 0,5 fte research assistant 600 000 NOK/year, total 4,8 million NOK
	Objectives and outcomes (planned or actual) and link to website	Planned: TIPS 20+ -year follow up: Long-term follow-up of the original TIPS participants included 1997-2000. Medical morbidity, physical health, genetic and immunological factors, suicidality, recovery, satisfaction with treatment, cognitive function. No web page yet. <u>Link</u> to main publication.
Project 4: TIPS 2: Follow-up of psychosis and substance	Project owner(s) (project leaders organisation)	Stavanger University Hospital
induced psychosis.	Total budget and share allocated to	1 PhD à 3 million NOK /year, total 3 million NOK.
2007-2023	research group	
	Objectives and outcomes (planned or actual) and link to website	 Five-year follow-up study of psychosis and substance-induced psychosis. Symptom development, treatment response and satisfaction with treatment, quality of life, daily, social, and occupational functioning, trauma and premorbid functioning, substance use, suicidality. Website: <u>TIPS - early detection and treatment of psychosis - Helse</u>
		Stavanger HF (helse-stavanger.no)
Project 5: Prevention of Psychosis 2 (POP 2): Better	Project owner(s) (project leaders organisation)	Stavanger University Hospital
detection of clinical high-risk symptoms	Total budget and share allocated to research group	1 million NOK /year from Stavanger University Hospital; 0,4 fte research nurse allocated to this, approximately 250 000 NOK.

	Objectives and outcomes (planned or actual) and link to website	Objective: Improving the detection of persons with clinical high risk for psychosis. Planned outcomes: Detection rates.Website: TIPS - early detection and treatment of psychosis - Helse Stavanger HF (helse-stavanger.no)
Project 6: Bedre Psykosebehandling (Better Treatment of Psychosis)	Project owner(s) (project leaders organisation)	Akershus University Hospital, professor Torleif Ruud. Six health trusts collaborate: University Hospital Northern Norway, Health Fonna, Stavanger University Hospital, Sørlandet Hospital, Innlandet Hospital and Akershus University Hospital
2017-> ongoing	Total budget and share allocated to research group	Total budget 34,8 million NOK of which 15 by participating Health Trusts. TIPS Research group: 1 part time PhD Health West, 2,3 million NOK.
	Objectives and outcomes (planned or actual) and link to website	Outcomes pertain to the research question to what degree mental health care in Norway adheres to the National Guidelines for the Assessment and Treatment of Psychosis. Four evidence-based treatment interventions were selected for investigation: Care for somatic health; drug treatment; family work, and Illness Management and Recovery (IMR). Website: <u>Bedre PsykoseBehandling (bedrepsykosebehandling.no)</u> [Norwegian]
Project 7: Bergen Psychosis Study 2; Bergen-Stavanger-	Project owner(s) (project leaders organisation)	Health Bergen HF
Innbruck-Trondheim (BeStInTro) 2014-2017	Total budget and share allocated to research group	Total 6,6 million NOK. Share Stavanger University Hospital: 1 part time phd 3 years à 500 000 total 1,5 million NOK plus 1fte PhD 3 years 3 million NOK; both Health West research funding.

	Objectives and outcomes (planned or actual) and link to website	Objectives: The independent investigation of effects and side-effects of pharmacologically different antipsychotic agents in clinically relevant settings; a pragmatic, randomized trial. Outcomes: Effects and side-effects of antipsychotic treatment. Websites: <u>Bergen psykose prosjekt (ihelse.net)</u> [Norwegian] and <u>Bergen</u> <u>Psychosis Project 2 (clinicaltrials.gov)</u>
Project 8: Job- and SchoolPrescription: A local adaptation to Individual Placement and Support for young	Project owner(s) (project leaders organisation) Total budget and	TIPS Stavanger University Hospital Forskningsstiftelsen DAMM: 2,25 million NOK. The Norwegian Employment
2014-2016	share allocated to research group	and Welfare Services: 2,25 million NOK.
	Objectives and outcomes (planned or actual) and link to website	Objective: To test IPS adapted to serve both education and employment for persons suffering from psychosis in a Norwegian context. Outcomes: Employment and education enrolment rates. Websites: <u>SkoleResept (dam.no)</u> [Norwegian]; <u>JobbResept (nav.no)</u> [Norwegian]; <u>Skole og jobbresept (helse-stavanger.no)</u> [Norwegian]

Table 5. Research group's contribution to publications

Instructions: Please select 5-15 publications from the last 5 years (2018-2022) with emphasis on recent publications where group members have a significant role. **If the publication is not openly available, it should be submitted as a pdf file attached to the self-assessment.** We invite you to refer to the Contributor Roles Taxonomy in your description: <u>https://credit.niso.org/</u>.

Cf. Table 1. List of personell by categories: Research groups up to 15 group members: 5 publications. Research groups up to 30 group members: 10 publications. Research groups above 30 group members: 15 publications.

Please delete tables that are not used.

Publication 1: Title: Long-term follow-up of the TIPS early detection in psychosis study: effects on 10- year outcome. Journal: American Journal of Psychiatry Year: 2012	Authors (Please highlight group members)	Hegelstad WtV, Larsen TK, Auestad B, Evensen J, Haahr U, Joa I, Johannesen JO, Langeveld J, Melle I, Opjordsmoen S, Rossberg JI, Rund BR, Simonsen E, Sundet K, Vaglum P, Friis S, McGlashan T
DOI: <u>https://doi.org/10.1176/appi.ajp.2011.11030459</u> URL: <u>https://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2011.11030459?url_ver=Z39.88-</u>	Short description	Ten-year outcomes after early detection of psychosis.
2003𝔯_id=ori:rid:crossref.org𝔯_dat=cr_pub%20%200pubmed	Research group's contribution	All phases of the research from conceptualization to data curation, analysis and drafting and writing the paper with first authorship.
Publication 2:	Authors (Please	Weibell MA, Hegelstad WT, Auestad B,
Title: The Effect of Substance Use on 10-Year Outcome in First-Episode Psychosis. Journal: Schizophrenia Bulletin	highlight group members)	Bramness J, Evensen J, Haahr U, Joa I, Johannessen JO, Larsen TK, Melle I,
Year: 2017	members)	Opjordsmoen s, Rund BR, Simonsen E,
DOI: <u>10.1093/schbul/sbw179</u>		Vaglum P, McGlashan T, McGorry P, Friis S
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5472130/	Short description	A ten-year follow up associating substance use trajectories to outcomes in psychosis.
	Research group's	All phases of the research from
	contribution	conceptualization to data curation,
		analysis and drafting and writing the paper with first authorship.

Publication 3: Title: Early Detection of Ultra High Risk for Psychosis in a Norwegian Catchment Area: The Two-Year Follow-Up of the Prevention of Psychosis Study.	Authors (Please highlight group members)	Joa I, Bjornestad J, Johannessen JO, Langeveld J, Stain HJ, Weibell M, Hegelstad WTV.
Journal: Front Psychiatry. Year: 2021 DOI: <u>10.3389/fpsyt.2021.573905</u>	Short description	Two-year outcomes in a clinical high risk for psychosis study.
URL: https://www.frontiersin.org/journals/psychiatry/articles/10.3389/fpsyt.2021.573905/full	Research group's contribution	All phases of the research from conceptualization to data curation, analysis and drafting and writing the paper with first authorship.
Publication 4:	Authors (Please	Schizonbronia Working Crown of the
Title: Mapping genomic loci implicates genes and synaptic biology in schizophrenia.	highlight group	Schizophrenia Working Group of the Psychiatric Genomics Consortium; co-
Journal: Nature	members)	author from TIPS Inge Joa
Year: 2022 DOI: <u>https://doi.org/10.1038%2Fs41586-022-04434-5</u> URL: <u>https://www.nature.com/articles/s41586-022-04434-5</u>	Short description	Fine-mapping and analysis of functional genomic data helped identify biological processes relevant to schizophrenia pathophysiology.
	Research group's contribution	Data collection and curation, resources, writing- review and editing.
Publication 5: Title: Association of Structural Magnetic Resonance Imaging Measures With Psychosis Onset in Individuals at Clinical High Risk for Developing Psychosis: An ENIGMA Working Group Mega-analysis. Journal: Jama Psychiatry	Authors (Please highlight group members)	ENIGMA Clinical High Risk for Psychosis Working Group; Jalbrzikowski M, Hayes RA, Wood SJ, Nordholm D, et al. (2021). Co-author from TIPS: Wenche ten Velden Hegelstad

Year: 2021 DOI: <u>10.1001/jamapsychiatry.2021.0638</u>	Short description	1792 individuals with clinical high risk for psychosis were compared to 1377 healthy
URL: <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8100913/</u>		controls were compared on surface area and cortical thickness as well as subcortical volumes using calibrated MRI-
		scans in 31 international sites.
	Research group's contribution	Data collection and curation, resources, writing- review and editing.

Table 6. Please add a list with the research group's monographs/scientific books.

Please delete lines which are not used.

	Title - Authors (Please highlight group members)- link to webpage (if possible)		
	Moderne Psykoseforståelse: Fra hjernelidelse til stresslidelse. In: Relasjonsboka. Shcacht-		
1	Magnussen, Box Haugen, Ek & Haugsgjerd. Chapter "". Inge Joa and Jan Olav Johannessen. A		
	Norwegian translation of an editorial by two of TIPS' group members.		
	Psykose. In: Psykisk helse i skolen. Red.: Bru, Cosmovici and Øverland. Chapter". Langeveld,		
2	Johannessen and Hatløy. This is a chapter in a book used in training for teachers and school staff,		
	focussing om adolescent mental health and school functioning. No English description available.		
3	Psykiske lidelser og arbeidsdeltakelse. In: Inkluderingskomeptanse. Red.: Kjetil Frøyland og		
	Øystein Spjelkavik. Gyldendal Akademisk, Oslo. Wenche ten Velden Hegelstad, Lena Heitmann,		
	Randi Kydland, Angelika Schafft (2014). This is a chapter in a book used in higher education for		
	workers in employment- and welfare services in Norway. No English description available		
4	Substance induced psychosis. In: <u>Neuropathology of Drug Addictions and Substance Misuse</u> ,		
	Volume 3: General Processes and Mechanisms, Prescription Medications, Caffeine and Areca,		
	Polydrug Misuse, Emerging Addictions and Non-Drug Addictions; pp.50-57. Ed: Preedy, V. Weibell,		
	M. Hegelstad, W ten Velden, Johannessen, JO (2016). Book chapter summing up literature and		
	TIPS empirical research on the effect of substance misuse on aetiology and course in psychosis.		

2.2 Research group's societal contribution

Describe the societal impact of the research group's research. Consider contribution to education, economic, societal and cultural development in Norway and internationally.

TIPS, originating here at Stavanger University Hospital, has become a brand name for early detection and intervention in psychosis and other mental illnesses throughout Norway. It has conferred changes in the organisation of specialist mental health care from poor access, long waitlist to easy access, no waitlist for assessment and treatment initiation in psychosis. The TIPS programme has led to a major quality improvement of psychosis treatment, in addition to shorter duration of untreated psychosis. For instance, TIPS were pioneers of family work for families of persons suffering from psychosis in Norway, now a standard part of treatment in many locations, and IPS-interventions, in addition to medication algoritm implementation. TIPS now runs at many health care providers in the country; in Eastern Norway [in Norwegian] and in Mid-Norway [in Norwegian] as well . The name TIPS has also been adopted by programs in Sweden [in Swedish], and variations of TIPS such as TOP [in Swedish] are running in Sweden and <u>Denmark [in Danish]</u>. Bergen (Norway) has a <u>TOPS</u>-project [in Norwegian]. These have all been implemented as a direct consequence of TIPS, the first early detection and intervention study. Bringing awareness of and knowledge about psychosis to the public can help reduce stigma attached to mental illness and psychiatry. The largest Nordic conference in psychiatry is called the Schizophrenia Days and is a yearly event originating from TIPS. The conference has a large section of the programme open to the public, and mixes science, service user and carer experiences, art, literature, and music as means to demystify mental illness and mental health care.

TIPS former leader Jan Olav Johannessen led the work group developing Norwegian <u>guidelines</u> [Norwegian] for the assessment and treatment of psychosis, on grounds of the TIPS expertise on the field. In 2023, TIPS senior researcher Inge Joa was invited to contribute in the expert group appointed by the government on the organisation of mental health care nationally. TIPS has also given rise to a suicide prevention programme adopted by the regional health care provider called "<u>Velg Å Leve</u>" [in Norwegian], i.e. "Choose to live". Finally, TIPS researchers have contributed frequently in with expert opinion pieces in the local and national media, influencing policies in mental health care regarding not only psychosis, but also a wider discussion about evidence-based psychiatry, involuntary mental health care, and the needs of caretakers of persons suffering from severe mental illness.

Table 7. The research group's societal contribution, including user-oriented publications, products (including patents, software or process innovations

Instructions: Please select 5–10 of your most important user-oriented publications or other products from the last 5–10 years with emphasis on recent publications/products. For each item, please use the following formatting. <u>Please delete lines which are not used</u>.

No.	Name of publication/product	Date of publication/product	Link to the document
1	Renewed social media campaigns including	November 2019	Published on snapchat and meta <u>TIPS-INFO (facebook.com)</u>
	films/"reels" featuring young people		[Norwegian]
2	Official website	2005; continuous updating	www.tips-info.com [Norwegian]
3	National guidelines for the assessment and	2013; update June 2022. Led by TIPS	Utredning, behandling og oppfølging av personer med
	treatment of psychosis	founder professor Jan Olav Johannessen	psykoselidelser.pdf (helsedirektoratet.no) [Norwegian]
4	Johannessen and Tingæs: "Mestringsbok Psykose" (Coping with psychosis). Hertervig forlag.	2019	Mestringsbok Psykose (hertervigforlag.no) [Norwegian]
5	TIPS video clinical interviews (acted; no real patient); for teaching	2023	TIPS samtale (vimeo.com) [Norwegian]
6	Massive information campaigns; ads on buses; cinema short films; leaflets, brochures, booklets, merchandise for students	2012-> ongoing	Example: <u>Are you worried about someone? (TIPS-info)</u> [Norwegian]

3. Challenges and opportunities

Opportunities for TIPS the next ten years include:

- Expanded collaborations with the universities and hospitals of Stavanger, Bergen and Oslo can facilitate the recruitment of PhD-students, postdocs, and senior researchers.
- New national medical quality <u>registry</u> [in Norwegian] for adult mental health care can provide rich data for future research.

• Tightened collaboration with the central research department of Stavanger University Hospital yields resources for us to use, such as legal assistance, statistical guidance, and support towards applying for larger grants such as from the Norwegian Research Council and EU-funds.

- Local infrastructure for storing biological data, established for TIPS in 2023, gives opportunities for more focus on biological factors in psychosis.
- Membership in <u>NORSMI</u> [in Norwegian] national network for research in mental health provides opportunities for partaking in larger multi-site studies.
- Our recruitment of a lived experience (service user) consultant can increase their involvement in the design and execution of research projects.
- Concrete involvement in international primary (USA, Denmark) and secondary (King's college) provides opportunities for inviting participation in TIPS-led studies in the future.

Challenges include:

- Need for increase in external funding. TIPS will need to attract funding from external funding bodies to finance new research- and PhD-projects. A strategy to achieve this includes a clear division of labour and ownership of specific research areas and projects among our group members.
- Many small research positions (from 0.2 to 0.4 fte) and affiliated researchers who are group members but lack formal positions as employees at TIPS Centre for Clinical Research in Psychosis. This hampers continuity and predictability and poses a threat to sustainability.
- Lack of support staff: TIPS has no research support staff. Valuable time is spent by key researchers carrying out basic administrative tasks.
- Slowness clinical leadership approving and formalizing structural foundations (i.e., positions, infrastructure for collecting biological data) for research hampers progress and productivity.