MASHA ZHDANAVA Vice President

Office: 514 394 4469

Fax: 514 394 4461

masha.zhdanava@analysisgroup.com

1190 avenue des Canadiens-de-Montréal

Tour Deloitte, Suite 1500

Montreal, Quebec H3B 0G7 Canada

Ms. Zhdanava specializes in the application of statistical methods to the field of health economics and outcomes research (HEOR). Her expertise includes burden-of-illness analyses, treatment effectiveness and treatment pattern analyses, disease epidemiology studies, and cost models. Ms. Zhdanava has worked with a variety of data, including health insurance claims, electronic medical records, and data collected from chart reviews and surveys. Her research in a wide range of therapeutic areas – including depression, schizophrenia, generalized myasthenia gravis, psoriasis, inflammatory bowel disease, respiratory diseases, and oncology – has been presented at conferences and published in peer-reviewed journals such as *The Journal of Clinical Psychiatry*, the *Journal of Affective Disorders*, *Pharmacoeconomics*, *BMC Psychiatry*, *Clinical Therapeutics*, the *Journal of Managed Care & Specialty Pharmacy*, *Current Medical Research and Opinion*, and the *Journal of Medical Economics*. Ms. Zhdanava is a member of the editorial board for *Current Medical Research and Opinion*.

EDUCATION

2013 M.A., economics, Dalhousie University, Halifax

B.A., economics, (honors with high distinction), European Humanities University, Minsk

PROFESSIONAL EXPERIENCE

2013-Present Groupe d'analyse

Vice President (2025–Present)

Manager (2020–2024) Associate (2013–2020)

2012–2013 Atlantic Provinces Economic Council

Research Assistant

2009–2011 Polylog Consulting Group

Research Analyst

2007–2009 Institute for Regional Policy

Communications Specialist

2005–2007 State Duma of the Russian Federation

Press Secretary and Aid to the Russian State Duma Deputy

ARTICLES AND PUBLICATIONS

Kale H, Zhdanava M, Pilon D, Sheehan J, Drissen T, Boonmak P, et al. Economic and clinical burden of major depressive disorder with insomnia symptoms in commercially and Medicaid-insured adults in the United States: A retrospective matched cohort study. *Journal of Affective Disorders*. 2025;372:653-64.

- Clemens K, Zhdanava M, Teeple A, Voegel A, Joshi K, Shah A, et al. Impact of social determinants of health on esketamine nasal spray initiation among patients with treatment-resistant depression in the United States. *Journal of Managed Care & Specialty Pharmacy*. 2025;31(1):101-11.
- Harding L, Zhdanava M, Teeple A, Shah A, Boonmak P, Pilon D, et al. Health Care Resource Use and Medical Costs Among Patients With Major Depressive Disorder and Acute Suicidal Ideation or Behavior Initiated on Esketamine Nasal Spray or Traditional Treatments in the United States. *Clinical Therapeutics*. 2025;4:S0149-2918(24)00409-0.
- Jha MK, Zhdanava M, Shah A, Voegel A, Tardif-Samson A, Pilon D, et al. Mental Health-Related Disability Days and Costs Among Patients with Treatment-Resistant Depression Initiated on Esketamine Nasal Spray and Conventional Therapies in the USA. *Drugs—Real World Outcomes*. 2025:1-9.
- Zhdanava M, Fitzgerald T, Pilon D, Teneralli RE, Shah A, Diaz L, et al. Comparative analysis of persistence and remission with guselkumab versus secukinumab and ixekizumab in the United States. *Journal of Dermatological Treatment*. 2024;35(1):2349658.
- Zhdanava M, Pesa J, Boonmak P, Schwartzbein S, Cai Q, Pilon D, et al. Pre-diagnosis Predictors of High Health Care Cost Among Patients with Myasthenia Gravis Using a Combined Machine-learning and Regression Approach (P4-11.011). *Neurology*. 2024;22(5):735-747.
- Zhdanava M, Zhao R, Manceur AM, Ding Z, Boudreau J, Kachroo S, et al. Economic and clinical burden of chronic corticosteroid use in patients with Crohn [apos] s disease initiated on biologic or conventional therapies in the US: A retrospective claims study. *Journal of the American Pharmacists Association*. 2024;64(2):386-94. e10.
- Zhdanava M, Pesa J, Boonmak P, Cai Q, Pilon D, Choudhry Z, et al. Economic burden of generalized myasthenia gravis (MG) in the United States and the impact of common comorbidities and acute MG-events. Current Medical Research and Opinion. 2024;40(7):1145-1153.
- Zhdanava M, Kachroo S, Boonmak P, Burbage S, Shah A, Korsiak J, et al. Comparison of real-world healthcare resource utilization among advanced therapy-naive patients with ulcerative colitis initiated on ustekinumab or vedolizumab. *Gastroenterology*. 2024;166(5):S-1422-S-3.
- Harding L, Joshi K, Zhdanava M, Shah A, Voegel A, Chen C, et al. Treatment Patterns, Acute Healthcare Resource Use, and Costs of Patients with Treatment-Resistant Depression Completing Induction Phase of Esketamine in the United States. *Drugs–Real World Outcomes*. 2024:1-11.
- Zhdanava M, Kachroo S, Boonmak P, Burbage S, Shah A, Korsiak J, et al. Comparison of real-world healthcare resource utilization among advanced therapy-naïve and advanced therapy-experienced patients with ulcerative colitis initiated on ustekinumab or vedolizumab. *Current Medical Research and Opinion*. 2024;40(9):1555-62.
- Zhdanava M, Kachroo S, Boonmak P, Burbage S, Shah A, Korsiak J, et al. Real-World Treatment Persistence Among Advanced Therapy-Naïve or-Experienced Patients with Ulcerative Colitis Initiated on Ustekinumab or Adalimumab. *Advances in Therapy*. 2024;41(10):3868-87.
- Zhdanava M, Zhao R, Manceur AM, Ding Z, Boudreau J, Kachroo S, et al. Burden of chronic corticosteroid use among patients with ulcerative colitis initiated on targeted treatment or conventional therapy in the United States. *Journal of Managed Care & Specialty Pharmacy*. 2024;30(2):141-52.

- Zhdanava M, Kachroo S, Shah A, Ding Z, Lefebvre P, Zhao R, et al. Real-World Maintenance Phase Persistence on Ustekinumab and Adalimumab in Ulcerative Colitis. *Patient Preference and Adherence*. 2024:809-20.
- Zhdanava M, Pesa J, Boonmak P, Schwartzbein S, Cai Q, Pilon D, et al. Predictors of High Healthcare Cost Among Patients with Generalized Myasthenia Gravis: A Combined Machine Learning and Regression Approach from a US Payer Perspective. *Applied Health Economics and Health Policy*. 2024;22(5):735-47.
- Harding L, Zhdanava M, Shah A, Pesa J, Totev TI, Tardif-Samson A, et al. Understanding profiles of patients with treatment-resistant depression by stringency of health plan prior authorization criteria for approval of esketamine nasal spray. Current Medical Research and Opinion. 2024;40(9):1615-23.
- Zhdanava M, Kachroo S, Boonmak P, Burbage S, Shah A, Lefebvre P, et al. Real-World Long-Term Persistence and Surgical Procedure-Free Period Among Bio-naïve Patients with Crohn's Disease and Fistula Initiated on Ustekinumab. *Advances in Therapy*. 2024;41(10):3922-33.
- Zhdanava M, Burbage S, Boonmak P, Kachroo S, Shah A, Godwin B, et al. Treatment Persistence Among Anti-Tumor Necrosis Factor—experienced Patients With Ulcerative Colitis Switching to a Biologic With a Different Mode of Action or Cycling to Another Anti-Tumor Necrosis Factor Agent. Clinical Therapeutics. 2024;31:S0149-2918(24)00375-8.
- Zhdanava M, Karkare S, Jha MK, Shah A, Voegel A, Tardif-Samson A, et al. Mental-Health Related Disability Leave and Costs Among Patients with Treatment Resistant Depression Initiated on Esketamine and Conventional Therapies. CNS Spectrums. 2024;29(5):525-6.
- Clemens K, Zhdanava M, Teeple A, Voegel A, Shah A, Bowrey H, et al. Mental Health-Related Healthcare Resource Use and Costs of Medicaid Beneficiaries with Treatment Resistant Depression Receiving Interventional Therapy. CNS Spectrums. 2024;29(5):501-2.
- Zhdanava M, Zhao R, Manceur A, Ding Z, Boudreau J, Kachroo S, et al. Chronic corticosteroid use is associated with substantial clinical and economic burden in patients with Crohn's Disease initiated on biologic or conventional therapies in the US: A retrospective study. *Journal of the American Pharmacists Association*. 2023:S1544-3191 (23) 00375.
- Joshi K, Pilon D, Shah A, Holiday C, Karkare S, Zhdanava M. Treatment patterns, healthcare utilization, and costs of patients with treatment-resistant depression initiated on esketamine intranasal spray and covered by US commercial health plans. *Journal of Medical Economics*. 2023;26(1):422-9.
- Zhdanava M, Ndife B, Pilon D, Rossi C, Vermette-Laforme M, Lefebvre P, et al. Economic burden associated with nasal polyposis recurrence among commercially insured patients in the United States. *Otolaryngology—Head and Neck Surgery*. 2023;168(1):65-73.
- Zhdanava M, Ding Z, Manceur AM, Muser E, Lefebvre P, Holiday C, et al. Treatment persistence among bio-naïve patients with Crohn's disease initiated on ustekinumab or adalimumab. *Current Medical Research and Opinion*. 2023;39(4):533-43.
- Zhdanava M, Zhao R, Manceur AM, Kachroo S, Lefebvre P, Pilon D. Persistence and dose escalation during maintenance phase and use of nonbiologic medications among patients with ulcerative colitis initiated on ustekinumab in the United States. *Crohn's & Colitis 360*. 2023;5(3):otad045.

- Fitzgerald T, Zhdanava M, Pilon D, Shah A, Hilts A, Lefebvre P, et al. Long-term psoriasis control with guselkumab, adalimumab, secukinumab, or ixekizumab in the USA. *Dermatology and Therapy*. 2023;13(4):1053-68.
- Alberts M, Zhdanava M, Pilon D, Caron-Lapointe G, Lefebvre P, Bookhart B, et al. Venous thromboembolism recurrence among one-and-done direct oral anticoagulant users: a retrospective longitudinal study. *International Journal of Clinical Pharmacy*. 2023;45(4):952-61.
- Alberts MJ, Zhdanava M, Pilon D, Caron-Lapointe G, Lefebvre P, Bookhart B, et al. Ischemic stroke and systemic embolism among patients with non-valvular atrial fibrillation who abandon oral anticoagulant therapy. *Current Medical Research and Opinion*. 2023;39(9):1279-86.
- Zhdanava M, Ding Z, Manceur AM, Zhao R, Holiday C, Kachroo S, et al. Long-term persistence and other treatment patterns among bio-naïve patients with Crohn's disease treated with ustekinumab or adalimumab. *Current Medical Research and Opinion*. 2023;39(9):1215-25.
- Zhdanava M, Teeple A, Pilon D, Shah A, Caron-Lapointe G, Joshi K. Esketamine nasal spray for major depressive disorder with acute suicidal ideation or behavior: description of treatment access, utilization, and claims-based outcomes in the United States. *Journal of Medical Economics*. 2023;26(1):691-700.
- Zhdanava M, Kachroo S, Shah A, Ding Z, Holiday C, Lefebvre P, et al. Real-world ustekinumab persistence in patients with ulcerative colitis attaining the maintenance phase. *Gastroenterology*. 2023;164(4):S46-S7.
- Alberts M, Zhdanava M, Pilon D, Caron-Lapointe G, Lefebvre P, Bookhart B, et al. Venous Thromboembolism Recurrence Among Patients Who Abandon Oral Anticoagulant Therapy in the USA: A Retrospective Longitudinal Study. *Advances in Therapy*. 2023;40(4):1750-64.
- Zhdanava M, Kachroo S, Manceur AM, Ding Z, Holiday C, Zhao R, et al. Persistence Among Patients with Crohn Disease Previously Treated with an Anti-tumor Necrosis Factor Inhibitor and Switching or Cycling to Another Biologic Agent. *Clinical Therapeutics*. 2023;45(8):770-7.
- Alberts M, Zhdanava M, Pilon D, Caron-Lapointe G, Lefebvre P, Bookhart B, et al. Ischemic Stroke and systemic Embolism among one-and-done direct oral anticoagulant users with non-valvular atrial fibrillation. *Advances in Therapy*. 2023;40(5):2339-54.
- Teeple A, Zhdanava M, Pilon D, Caron-Lapointe G, Lefebvre P, Joshi K. Access and real-world use patterns of esketamine nasal spray among patients with treatment-resistant depression covered by private or public insurance. *Current Medical Research and Opinion*. 2023;39(8):1167-74.
- Zhdanava M, Zhao R, Manceur AM, Ding Z, Kachroo S, Holiday C, et al. Persistence and other treatment patterns among bio-experienced patients with Crohn's disease initiated on ustekinumab or adalimumab. *Journal of Managed Care & Specialty Pharmacy*. 2023;29(8):907-16.
- Fitzgerald T, Zhdanava M, Pilon D, Shah A, Lefebvre P, Feldman SR. Response to the letter to the editor: long-term psoriasis control with guselkumab, adalimumab, secukinumab, or ixekizumab in the USA. *Dermatology and Therapy*. 2023;13(11):2917-23.
- Karkare S, Zhdanava M, Pilon D, Nash AI, Morrison L, Shah A, et al. Characteristics of real-world commercially insured patients with treatment-resistant depression initiated on esketamine nasal spray or conventional therapies in the United States. *Clinical Therapeutics*. 2022;44(11):1432-48.

- Zhdanava M, Voelker J, Pilon D, Joshi K, Morrison L, Sheehan JJ, et al. Excess healthcare resource utilization and healthcare costs among privately and publicly insured patients with major depressive disorder and acute suicidal ideation or behavior in the United States. *Journal of Affective Disorders*. 2022;311:303-10.
- Zhdanava M, Starr HL, Lefebvre P, Totev TI, Shah A, Sheng K, et al. Understanding the health system conditions affecting the use of long-acting injectable antipsychotics in the treatment of schizophrenia in clinical practice: a US healthcare provider survey. *Neuropsychiatric Disease and Treatment*. 2022:1479-93.
- Pilon D, Fitzgerald T, Zhdanava M, Teeple A, Morrison L, Shah A, et al. Risk of treatment discontinuation among patients with psoriasis initiated on ustekinumab and other biologics in the USA. *Dermatology and Therapy*. 2022;12(4):971-87.
- Zhdanava M, Starr HL, Totev TI, Lefebvre P, Shah A, Sheng K, et al. Impact of COVID-19 pandemic on prescribing of long-acting injectable antipsychotics for schizophrenia: results from a United States prescriber survey. *Neuropsychiatric Disease and Treatment*. 2022:2003-19.
- Pilon D, Neslusan C, Zhdanava M, Sheehan JJ, Joshi K, Morrison L, et al. Economic burden of commercially insured patients with major depressive disorder and acute suicidal ideation or behavior in the United States. *The Journal of Clinical Psychiatry*. 2022;83(3):40440.
- Zhdanava M, Karkare S, Pilon D, Joshi K, Rossi C, Morrison L, et al. Prevalence of pre-existing conditions relevant for adverse events and potential drug—drug interactions associated with augmentation therapies among patients with treatment-resistant depression. *Advances in Therapy*. 2021;38(9):4900-16.
- Pilon D, Patel C, Lafeuille M-H, Zhdanava M, Lin D, Côté-Sergent A, et al. Economic burden in Medicaid beneficiaries with recently relapsed schizophrenia or with uncontrolled symptoms of schizophrenia not adherent to antipsychotics. *Journal of Managed Care & Specialty Pharmacy*. 2021;27(7):904-14.
- Zhdanava M, et al. Treatment-resistant depression associated with "disproportionate" costs in the USA. *PharmacoEconomics & Outcomes News*. 2021;879:30-29.
- Lin D, Pilon D, Zhdanava M, Joshi K, Lafeuille M-H, Cote-Sergent A, et al. Medication adherence, healthcare resource utilization, and costs among Medicaid beneficiaries with schizophrenia treated with once-monthly paliperidone palmitate or once-every-three-months paliperidone palmitate. *Current Medical Research and Opinion*. 2021;37(4):675-83.
- Zhdanava M, Lin D, Lafeuille M-H, Ghelerter I, Morrison L, Lefebvre P, et al. Antipsychotic adherence, resource use, and costs before and after the initiation of once-monthly paliperidone palmitate therapy among Medicaid beneficiaries with prior schizophrenia relapse. *Clinical Therapeutics*. 2021;43(3):535-48.
- Zhdanava M, Voelker J, Pilon D, Cornwall T, Morrison L, Vermette-Laforme M, et al. Cluster analysis of care pathways in adults with major depressive disorder with acute suicidal ideation or behavior in the USA. *Pharmacoeconomics*. 2021;39(6):707-20.
- Pilon D, Patel C, Lafeuille M-H, Zhdanava M, Lin D, Côté-Sergent A, et al. Prevalence, incidence and economic burden of schizophrenia among Medicaid beneficiaries. *Current Medical Research and Opinion*. 2021;37(10):1811-9.

- Pilon D, Karkare S, Zhdanava M, Sheehan JJ, Côté-Sergent A, Shah A, et al. Health care resource
 use, short-term disability days, and costs associated with states of persistence on antidepressant lines
 of therapy. *Journal of Medical Economics*. 2021;24(1):1299-308.
- Zhdanava M, Pilon D, Ghelerter I, Chow W, Joshi K, Lefebvre P, et al. The prevalence and national burden of treatment-resistant depression and major depressive disorder in the United States. *The Journal of Clinical Psychiatry*. 2021;82(2):29169.
- Zhdanava M, Kuvadia H, Joshi K, Daly E, Pilon D, Rossi C, et al. Economic burden of treatment-resistant depression in privately insured US patients with co-occurring anxiety disorder and/or substance use disorder. *Current Medical Research and Opinion*. 2021;37(1):123-33.
- Zhdanava M, Kuvadia H, Joshi K, Daly E, Pilon D, Rossi C, et al. Economic burden of treatment-resistant depression in privately insured US patients with physical conditions. *Journal of Managed Care & Specialty Pharmacy*. 2020;26(8):996-1007.
- Pilon D, El Khoury AC, Manceur AM, Zhdanava M, Benson C, Lefebvre P, et al. Are Medicaid coverage gaps associated with higher health care resource utilization and costs in patients with schizophrenia? *Population Health Management*. 2020;23(3):234-42.
- Kavati A, Zhdanava M, Ortiz B, LeCocq J, Schiffman B, Pilon D, et al. Long-term omalizumab outcomes in chronic idiopathic urticaria: a real-world study. *Allergy and Asthma Proceedings*; 2019;40(5):321-328.
- Pilon D, Obando C, Ding Z, Voelker J, Muser E, Manceur AM, et al. The economic burden of ulcerative colitis in the United States. *Gastroenterology*. 2019;156(6):S-609.
- Emond B, El Khoury AC, Patel C, Pilon D, Morrison L, Zhdanava M, et al. Real-world outcomes post-transition to once-every-3-months paliperidone palmitate in patients with schizophrenia within US commercial plans. *Current Medical Research and Opinion*. 2019;35(3):407-16.
- Blonde L, Vassalotti JA, Pilon D, Wynant W, Zhdanava M, Lefebvre P, et al. The cost of chronic kidney disease progression in type 2 diabetes patients. *Diabetes*. 2019;68(Supplement 1):14-OR.
- Ortiz B, Kavati A, Zhdanava M, Lecocq J, Schiffman B, Pilon D, et al. Biomarkers and Outcomes in Omalizumab-Treated Patients with Allergic Asthma: A Real-World Study in a Large Allergy Practice in the United States (US). *Journal of Allergy and Clinical Immunology*. 2019;143(2):AB423.
- Lecocq J, Kavati A, Zhdanava M, Ortiz B, Schiffman B, Cheung HC, et al. Long-Term Outcomes of Omalizumab in Chronic Idiopathic Urticaria (CIU): Evidence from a Large Allergy Practice in the United States (US). *Journal of Allergy and Clinical Immunology*. 2019;143(2):AB430.
- Pilon D, Sheehan JJ, Szukis H, Morrison L, Zhdanava M, Lefebvre P, et al. Is clinician impression of depression symptom severity associated with incremental economic burden in privately insured US patients with treatment resistant depression? *Journal of Affective Disorders*. 2019;255:50-9.
- Kavati A, Zhdanava M, Ortiz B, Lecocq J, Schiffman B, Pilon D, et al. Retrospective study on the association of biomarkers with real-world outcomes of omalizumab-treated patients with allergic asthma. *Clinical Therapeutics*. 2019;41(10):1956-71.
- Stone BD, Kavati A, Zhdanava M, Ortiz B, Lecocq J, Schiffman B, et al. Omalizumab Treatment Patterns in Chronic Idiopathic Urticaria (CIU): Evidence from a Large Allergy Practice in the United States (US). *Journal of Allergy and Clinical Immunology*. 2019;143(2):AB430.

- Williams P, Kavati A, Pilon D, Xiao Y, Zhdanava M, Balp M-M, et al. Health care burden and treatment patterns in commercially insured children with chronic idiopathic/spontaneous urticaria: A real-world study in the United States. *Allergy and Asthma Proceedings*. 2018;39(3):201-211.
- Williams PV, Kavati A, Pilon D, Xiao Y, Zhdanava M, Balp M-M, et al. Treatment patterns, healthcare resource utilization, and spending among Medicaid-enrolled children with chronic idiopathic/spontaneous urticaria in the United States. *Dermatology and Therapy*. 2018;8:69-83.
- Kavati A, Pilon D, Ortiz B, Paknis B, Vegesna A, Schiffman B, et al. Description of baseline characteristics of pediatric allergic asthma patients including those initiated on omalizumab. *Allergy & Rhinology*. 2018;9:2152656718763387.
- Tanton D, Duh MS, Lafeuille M-H, Lefebvre P, Pilon D, Zhdanava M, et al. Real-world evaluation of Hba1c, blood pressure, and weight loss among patients with type 2 diabetes mellitus treated with canagliflozin: An analysis of electronic medical records from a network of hospitals in Florida. *Current Medical Research and Opinion*. 2018;34(6):1099-115.
- Eghrari-Sabet J, Sher E, Kavati A, Pilon D, Zhdanava M, Balp M-M, et al. Real-world use of omalizumab in patients with chronic idiopathic/spontaneous urticaria in the United States. *Allergy* and Asthma Proceedings. 2018;39(3):191-200.
- Pilon D, Kavati A, Ortiz B, Paknis B, Vegesna A, Schiffman B, et al. Asthma control, lung function, symptoms, and corticosteroid sparing after omalizumab initiation in patients with allergic asthma. Allergy and Asthma Proceedings. 2018;39(2):127-135.
- Gauthier G, Guérin A, Zhdanava M, Jacobson W, Nomikos G, Merikle E, et al. Treatment patterns, healthcare resource utilization, and costs following first-line antidepressant treatment in major depressive disorder: a retrospective US claims database analysis. BMC Psychiatry. 2017;17:1-12.
- Pilon D, Kavati A, Ortiz B, Paknis B, Vegesna A, Schiffman B, et al. Symptoms, asthma control, lung function, and corticosteroid sparing following omalizumab initiation in allergic asthma patients. Annals of Allergy, Asthma & Immunology. 2017;119(5):S51.
- Pilon D, Kavati A, Ortiz B, Paknis B, Vegesna A, Schiffman B, et al. Description of baseline characteristics of pediatric allergic asthma patients including those initiated on omalizumab. *Annals of Allergy, Asthma & Immunology.* 2017;119(5):S53-S4.
- Maziarz RT, Guérin A, Gauthier G, Heroux J, Zhdanava M, Wu EQ, et al. Five-year direct costs of acute lymphoblastic leukemia pediatric patients undergoing allogeneic stem cell transplant.
 International Journal of Hematologic Oncology. 2016;5(2):63-75.
- Maziarz RT, Guerin A, Gauthier G, Heroux J, Zhdanava M, Wu EQ, et al. Five-year direct cost of
 pediatric patients with acute lymphoblastic leukemia (ALL) undergoing allogeneic stem cell
 transplantation (HSCT): an analysis from US payers' perspective. *Blood*. 2015;126(23):872.
- Guerin A, Ray S, Gauthier G, Hsu L-I, Zhdanava M, Wu E. The healthcare resource utilization, costs, and predictors of progression among relapsed and refractory CLL patients. *Blood*. 2015;126(23):3313.

PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS

2024–Present Current Medical Research and Opinion Editorial Board Member

LANGUAGES

Russian (native), French (intermediate)