## Appendix A: Case Scenarios

Abbreviations: PMH – past medical history; SH – social history; PE – physical exam

### 1. A 63-year-old with heart failure

Description: 63-year-old patient who identifies as male.

PMH: smoker one pack per day for 20 years; hyperlipidemia; Type 2 Diabetes Mellitus (T2DM) since age 56; heart failure diagnosed at age 62

SH: He lives in a single-family residence with his wife, who has been married for 30 years. Their son lives in another state with his wife. No grandchildren, but his son says they are planning to start a family soon. He is self-employed as an accountant for small businesses, working part-time. His wife is a teaching assistant at a nearby elementary school. Neither he nor his wife cooks at home very often; generally, meals are takeout from local Mexican or Chinese restaurants, or heat-and-serve meals from the grocery store. He has an average of two beers per night. Usual physical activity is minimal; most days, he spends time in front of the computer or the television. However, he expresses concern about increasing shortness of breath with activity and weight gain.

Current meds: metformin 500mg twice daily; simvastatin 40mg daily; lisinopril 40mg daily; metoprolol XL 50mg daily

PE: Overweight white male sitting comfortably, no apparent distress. BMI 30. Vital signs: B/P 150/90, P 88, R 12, Temp 98.8; lungs clear, no gallops or rubs on cardiac exam, 1+ pitting edema bilateral ankles.

Issue to address: Poorly controlled heart failure.

### 2. 45-year-old with new diagnosis of Human Immunodeficiency Virus (HIV)

Description: 45-year-old patient who identifies as male.

PMH: Diagnosed with depression about 15 years ago, was on medication at that time, but has

not taken any antidepressant medication in the past 5 years. No history of sexually transmitted infections, no hospitalizations.

SH: Lives in an apartment with his current partner. Works in an IT department for a large organization, excellent insurance. His family lives in another state, but he is in contact with them. and has a good relationship. He states he frequently had unprotected sex in his 20s, but since about age 30, he has had only serial monogamous relationships. Only uses protection if the partner requests it. Has been in current relationship for 2 months. Does not know the HIV status of his previous or current partner. Denies ever smoking, states heavy alcohol use in the past, but currently has fewer than eight drink equivalents per week.

Current meds: none. Will start on HIV treatment regimen.

PE: Well-nourished male, clearly agitated and distressed. Vital signs are within normal limits. Physical examination was negative for pain on palpation, lung, or cardiac abnormalities.

Issues to address: New diagnosis of HIV. Social issue challenges: difficulty accepting the reality of his diagnosis. He may not be able to disclose to his partner.

3. **22-year-old patient with metabolic syndrome and depression**

Description: 22-year-old who identifies as female, birth-assigned sex male.

PMH: Began estrogen hormone treatment one year ago. Has had various interventions since adolescence for weight loss. Other previous diagnoses: depression and anxiety, not currently being treated.

SH: The family is supportive, except for the grandmother, who lives with the family and is dismissive of the patient's identity. Has struggled with being overweight all her life, hindered by poor eating habits in the family. Is motivated to address weight loss but feels helpless. Current occupation is as an administrative assistant; very little physical activity. No current relationship. She has several close friends who are supportive of her. Socializes with friends at least twice per

week, and states that they are drinking alcohol more often. States an average of 10 drink equivalents per week. No history of smoking or drug use.

Current meds: estrogen treatment, no change in treatment regimen. Will start on an SSRI antidepressant at this visit. Vital signs within normal limits. BMI 28. Somewhat flat affect, sitting quietly in no apparent distress. No abnormal findings in physical exam.

Issues to address: Overweight, possible depression

**4. 16-year-old with Type 2 DM**

Description: 16-year-old who identifies as male. Currently in high school. Comes to the clinic for a 3-month follow-up of T2DM

PMH: diagnosed with obesity and T2DM at age 15. No other medical diagnoses.

SH: Lives with parents and two younger brothers (ages 13 and 10). Both parents work full time. He is primarily responsible for watching over his siblings until his parents are home from work in the late afternoon. Limited activity. He generally watches TV or plays video games with his brothers after school. Is not a participant in any sports. He has several close friends with whom he hangs out on weekends, but otherwise, he is not socially engaged. States that he thinks others make fun of his weight. His mother usually cooks dinner four to five times a week, and the family gets take-out on other days. His eating habits include snacking most days and occasionally eating fast food before dinner.

Current meds: Metformin 500mg daily

PE: Alert, oriented, overweight adolescent, no apparent distress. Appears unengaged and disinterested. Vital signs within normal limits, HgbA1c 7.5%. (Previous 7.8%) No significant findings on physical exam.

Issue to address: T2DM, poorly controlled

**5. 76-year-old with Alzheimer's, history of stroke**

Description: 76-year-old who identifies as male.

PMH: Diagnosed with Alzheimer's at age 72, ischemic stroke at age 68 after several episodes of deep vein thrombosis and transient ischemic attacks. Slight residual weakness on the left side, but it does not significantly affect activities of daily living. He was placed on long-term anticoagulation because labs indicated hereditary clotting issues.

SH: Lives with his wife, age 73, who is in good health for her age, but has arthritis in her hands. One child died 10 years ago. Both are active in their local protestant church. Wife is finding it increasingly hard to cope with the memory and confusion issues related to Alzheimer's. Feels as though she cannot leave him unattended.

Current medications: apixaban 5mg twice daily; donepezil 23mg daily.

PE: Elderly patient appearing older than chronological age. Not agitated, no apparent distress, but has difficulty following directions. Vital signs are within normal limits, and the physical exam is negative. No recent cognitive testing has been done.

Issue to address: Dementia seems to be worsening, and his wife is finding it harder to cope.

**6. 58-year-old with coronary artery disease, anxiety disorder**

Description: 58-year-old who identifies as female. Comes to the clinic because over the past two weeks she has had two episodes of "feeling funny", generalized discomfort, and/or fluttery feeling in chest, lasting <5 minutes. Both episodes occurred after stress-related incidents at work.

PMH: Diagnosed with hypertension at age 30, myocardial infarction at age 55 with stent placement. Diagnosed with generalized anxiety disorder in her early twenties.

SH: Lives alone, never been married, no current relationship, no children. Socializes with co-workers once a month or so, but states she has no close friends. Non-smoker, drinks 4-5 glasses of wine/week. Has recently gained weight, and her diet includes more high-cholesterol foods and

fast food items; she primarily sits at a computer for her work, and has very little exercise.
Current meds: lisinopril 40mg daily, simvastatin 40 mg at bedtime, nitroglycerin 0.4 mg sublingual as needed, metoprolol XL 25 mg daily.
PE: Patient is alert and oriented, no apparent distress. Appears slightly overweight, skin warm and dry. Vital signs are within normal limits but B/P borderline at 130/70. BMI 26. Lungs clear, no cardiac abnormalities heard. EKG indicates prior MI, but no indications of an acute cardiac event. The treadmill test is negative for cardiac ischemia.
Issues to address: possible anxiety-related chest discomfort; needs more attention to cardiac risk factors in her lifestyle.

**7. 22-year-old with chlamydia trachomatis, history of recurrent chlamydia infections**

Description: 22-year-old who identifies as female, sexually active with males only. Presents to clinic with foul smelling greenish yellow vaginal discharge and pain during sexual intercourse.
PMH: History of recurrent chlamydia infections, successfully treated in the past.
SH: Currently a college student studying English literature, works at a local restaurant on weekends, lives in an apartment with a female roommate, and is currently in multiple sexual relationships. Describes herself as consistently heterosexual.
No history of smoking. Drinks ~14 alcohol equivalents per week, generally all on weekends.
Current meds: birth control pills. Will be treated for the current chlamydia diagnosis.
PE: Alert, friendly, no apparent distress. Height: 5 feet 6 inches, Weight: 152 lbs. Vital signs within normal limits. complaining of slight lower abdominal pain upon palpation.
Issues to address: Repeat chlamydia infections. Engages in high-risk sexual activity, possible alcohol misuse.

**8. 37-year-old with breast cancer.**

Description: 37-year-old who identifies as female. Presents to the clinic for severe nausea and multiple episodes of vomiting, unable to tolerate any food or liquids. Lost 5 lbs over the last 2 weeks.

PMH: Six months ago discovered a lump in breast which was later diagnosed as breast cancer. Mother died of breast cancer at age 55.

SH: Living with husband and children aged 3 years and 2 years. Recently unemployed, previously worked as an elementary school teacher. Medical insurance through husband, husband works as an IT manager, very cooperative, and tries to help her with the children. However, he is gone for most of the day, and no family members are nearby.

Current meds: Last round of chemotherapy started 2 days ago. Has previously completed 2 rounds of chemotherapy. Oncologists are optimistic about full recovery.

PE: Patient is alert and oriented, thin appearance, subdued in affect. Vital signs within normal limits. Height: 5 feet 3 inches, Weight: 115 lbs. Skin is cool to the touch. Has a port-a-cath in place. Multiple bald spots on her head. No significant abnormalities in physical exam.

Issues to address: significant challenges to being able to incorporate best practices for Management of nausea and vomiting leading to weight loss.

**9. 25-year-old with sickle cell disease**

Description: 25-year-old who identifies as male. Presents to the clinic for follow-up after a hospitalization for a vaso-occlusive pain crisis complicated by influenza

PMH: Diagnosed with sickle cell disease (SCD) in childhood. History of an acute ischemic stroke at age 20 years with full recovery, and has received monthly, simple red cell transfusions since the stroke. His last transfusion was approximately four months prior.

SH: Lives in parents' house, trying to complete college. Currently unemployed due to medical issues and repeated hospitalizations. Both parents are very caring and support him emotionally and financially. Mother works as a restaurant manager, and father owns a construction business. Patient states some frustration with the requirements related to his disease and finds it difficult to adhere to the treatments and regimen.

Current meds: He is taking deferasirox 20 mg/kg daily but occasionally misses doses.

PE: Alert, pale looking, cooperates with PE. Height, 5 feet 4 inches, and weight 130 lbs. Delayed capillary refills, discomfort on manipulation of knees, otherwise physical exam is unremarkable.

Issue to address: frequently misses treatments and medications, resulting in complications.

**10. 15-year-old with eating disorder, history of sexual abuse**

Description: 15-year-old who identifies as female who suffered documented sexual abuse from her father, removed from her biological parents at age 10. Presents to the clinic for significant underweight. Accompanied by social worker and foster mother.

PMH: Diagnosed with post-traumatic stress disorder at 12 years of age. Has been in and out of therapy with a history of

anorexia and struggles with body image issues.

SH: Father and mother not part of her life at present. At age 10, was temporarily sheltered until she was placed in a foster home. Currently has been in the same foster home for 3 years, in a family of mother, father, two natural children, and one other foster child. The foster mother is supportive and has been seeking possible adoption. Therapy for post-traumatic stress disorder and anorexia has been inconsistent, primarily because of poor staffing that

results in frequent therapist changes. Currently, there is minimal follow-up regarding dietary and behavior recommendations.

Current meds: none

PE: Petite, pale-looking white female. Appears edgy and shy, easily startled, refuses physical exam. Height 5 feet 1 inch, weight 95 lbs., BP 100/70, pulse 130 beats/ min.

Issue to address: Challenges to adherence to treatment recommendations.

**11. 18 year old seeking gender reassignment surgery**

Description: 18-year-old who identifies as female, birth-assigned sex male. Seeking gender reassignment. Is presenting to the clinic today to determine when to schedule both procedures.

PMH: Has been living as a female since 6th grade and seeks gender reaffirming male to female (MTF) surgery. Has been regularly seeing a psychiatrist for depression/anxiety with good success. Is excited and nervous about this next step and needs to know what to expect regarding her body and self-image after the procedure. Has chosen orchiectomy as an option to halt testosterone production, and voice feminization

surgery.

SH: Family is supportive of MTF gender-affirming surgery. She lives with her birth mother and her mother's partner. She is on her mother's insurance plan that covers gender-affirming treatments and surgery. The patient is the youngest of 4 siblings (brother aged 30 is a human rights lawyer and lives in California; twin sisters aged 20 living at home attending nearby university, both enrolled in nursing school.)

Current meds: feminizing hormone therapy since 6th grade

PE: Well-nourished patient, sitting quietly, no apparent distress, alert and oriented. Appears knowledgeable regarding treatments and options. Vital signs within normal limits. No unexpected findings on physical exam.

Issues to address: Knowledge deficit regarding what to schedule first, and what to expect in regards to healing. Is struggling with some facial acne and is wondering if the orchiectomy will prevent future outbreaks and facial scarring from pustule acne outbreaks.

**12. 9-year-old with asthma**

Description: A 9-year-old who identifies as male, was referred to the clinic for asthma treatment, accompanied by his mother.

PMH: Was diagnosed with asthma at age 5 and seasonal allergies. Since birth has been experiencing bouts of waxing an atopic dermatitis (pediatric eczema since 1 month old).

SH: Family are migrant farm workers (working in citrus groves in Florida and the Vidalia onion crops in South Georgia). The patient lives with parents and 5 siblings in a double-wide trailer in South Georgia close to the fields they work in both Georgia and Florida. Their trailer does not have air-conditioning, and the carpets were recently flooded due to recent tornado damage causing mold to grow. His older siblings and mother cook typical cultural foods using a butane stove top and deep fryer. Recently the mold growth, lack of air conditioning, and pollen from the nearby fields is causing him to use his rescue inhaler more. Has had a stuffy nose, sneezing, wheezing, and eczema flares on the back of the knees and is itching on the inside of the elbows since they recently moved closer to the field where his parents work.

PE: Slender male, appears nervous but no apparent distress. Eczema noted on back of knees and forearms. Slight wheezing noted bilaterally on auscultation. Vital signs: SPO2 – 84%, RR 24, BP 120/80, HR 88.

Current meds: Pulmicort Flexhaler and Albuterol ProAir rescue inhaler. Is not currently taking anything for seasonal allergies or eczema flares.

Issue to address: increased flare-ups of asthma and allergic reactions.

**13. 55-year-old refugee with new diagnosis of hypertension**

Description: A 55-year-old female is in the clinic for a new patient visit. Requires translator, performed by her daughter at this visit. Current complaint: pounding headache.

PMH: No previous diagnoses available; full medical records were not brought to the US when she arrived.

SH: newly arrived female Burkinabe refugee born in Burkina Faso recently fled to Niger during a violent uprising and then arrived on foot in Mali in June when further regional instability and food shortages in camps forced her to flee.

Widowed. Uninsured. Living at 200% below the Federal Poverty Level. Of her four living children, two are living in Canada, one is living in Arizona, and her 30-year-old daughter and four children live with her in a two-bedroom, one-bathroom apartment. The mother's income is a significant contribution to the household. She works on the line at a nearby protein processing plant and complained of headaches and blurry vision. She went to the nurse at the company-sponsored healthcare clinic, who took her blood pressure and found it to be 190/100, and then referred her to the local free healthcare clinic. She was told to follow up on this blood pressure and put on reduced hours at the plant until her hypertension is stabilized. Patient was not previously made aware of signs and symptoms of high blood pressure and other exacerbating factors. Her daughter can help with monitoring the blood pressure; however, the family is finding it hard to afford the medications and find low-cost food.

Current medications: The provider will prescribe losartan 50mg, 1 tablet per day, at the visit today.

PE: Thin, but appears adequately nourished. Sitting quietly, no apparent distress, alert and oriented. Vital signs: SPO2 – 95%, RR 18, BP 188/100, HR 99, Temp 98.7 F, headache pain 7/10.

Issues to address: New hypertension diagnosis and temporary reduction in household income. Recommended for Mediterranean or DASH diet. Needs hypertension education and follow up plan.

**14. 70 year old with chronic obstructive pulmonary disease, recently discharged from hospital with diagnosis of pneumonia after COVID-19 infection, newly prescribed oxygen therapy.**

Description: A 70-year-old who identifies as male was a veteran of the Vietnam Era and served in the Air Force. In the clinic to evaluate for the use of home oxygen.

Is being prescribed BiPAP and oxygen therapy after discharge from a 10-day admission for Pneumonia after COVID-19 infection. Considering refusing oxygen therapy with activity because it affects his weekend motorcycle rides with his Veteran friends. Is worried how he will take a tank of oxygen safely with him and wants to avoid having to carry it around.

PMH: chronic obstructive pulmonary disease, hypertension, former smoker (60 pack years). Quit 10 years ago after his wife of 30 years died of lung cancer.

SH: Widowed. Receives a combination of VA Benefits, Medicaid, Medicare, prefers his local "family doctor" over "standing in line" at the VA. Lives by himself in a high-rise condominium on the 20th floor. After his discharge from the Air Force, he worked as a machinist in the local factory for 20 years before retiring at age 65. Likes to ride his motorcycle on weekends and is worried that his recent hospitalization and new oxygen therapy will prevent him from "having fun". Close and supportive relationship with friends and fellow veterans.

Current meds: Tiotropium (Spiriva) Daily, Albuterol (ProAir HFA) Daily, and Fluticasone (Flovent HFA) for exacerbations, and Theophylline for maintenance.

PE: Well-nourished male sitting quietly, no apparent distress. Alert and oriented. Barrel chest appearance. Scattered rales noted bilaterally on inspiration. Otherwise physical exam within normal limits. Vital signs: SPO2 on room air – 83% after timed walking test ; 89% on ambulatory oxygen after time walking test, RR 14, BP 138/84, HR 78, Temp 98.7 F, Pain 0/10

Issues to address: Education regarding recent pneumonia with chronic obstructive pulmonary disease exacerbation, new RX for home oxygen.

**15. 35-year-old pregnant person working as paramedic**

Description: 35-year-old who identifies as female, 13 weeks pregnant and working as a paramedic. Is coming to primary care for bouts of morning sickness that are impeding her ability to work 12-hour shifts and is triggering post-traumatic stress disorder and disordered eating patterns.

PMH: Diagnosis with post-traumatic stress disorder 5 years ago due to previous intimate partner violence (IPV). No other medical diagnoses until current pregnancy. Two prior pregnancies, delivered uneventfully.

SH: Divorced 5 years ago and won custody of her 2 children (ages 10 and 7). For the past 2 years has been living with a male partner and attending EMT certification school. Was hired as an EMT before discovering her unintended pregnancy. Currently uninsured, as she is 60 days into her required 90-day work period before she receives benefits. Is worried she will lose the baby if she is not able to keep food down. Has further anxiety regarding family and news reports about the high incidence of pregnancy complications and deaths in African American women.

Current meds: fluoxetine

PE: Anxious-appearing patient, alert and oriented. Vital Signs: SPO2 98%, RR 16, BP 128/84, HR 68,

Temp 98.7 F, Pain 0 (pain with morning sickness = 8) No significant findings on physical exam.

Issues to address: Pregnancy-related nausea/vomiting, anxiety, post-traumatic stress disorder

**16. 40-year-old with schizophrenia**

Description: 40-year-old who identifies as male, unhoused for the past 6 months. Before that, he cycled between time on the street and a variety of shelters – from which he would be ejected for

behavior problems. His schizophrenia has been well controlled in the past when he takes his medications routinely.

PMH: diagnosed with schizophrenia at age 30.

SH: No family support system at present; biological parents live in another state and do not keep in touch. No current provider. Occasional visits to Mercy Care or similar clinic for health care when issues arise.

Current meds: none. Prescribed thioridazine in the past. Has run out and did not return to the provider for a refill. The provider plans to put him on haloperidol decanoate IM injections in hopes that this will increase his chances of treatment adherence. Also will start him on hydrochlorothiazide (HCTZ) for initial blood pressure management.

Current Medical Issue: Comes to clinic because he was at a health fair for B/P screening and the nurse made an appt for him due to elevated b/p. However, his priority issue is control of the schizophrenia.

PE: Alert and oriented, sitting quietly, thin with disheveled appearance. B/P 160/90, other vital signs within normal limits.

Issues to address: Improving medication adherence so that he will be able to find stable housing. Challenges related to the new Rx of HCTZ.

**17. 19 year old with newly diagnosed bipolar disorder**

Description: 19-year-old who identifies as non-binary, pronouns they/them. A first-year Community College student who has been unable to continue due to symptoms of bipolar disorder. This is a follow-up visit for medications started one month ago.

PMH: Diagnosed with bipolar disorder three months ago.

SH: Past history of alcohol use, no illegal drug use disclosed. Enrolled 6 months ago in a community college, but left school a month ago. Lives at home with parents and one younger

sister. Parents are supportive but until recently, have been unable to afford extensive testing and follow up to understand the cause of their behavior and mental health issues. Father recently started a job with better insurance, so they obtained a referral to the mental health provider to begin therapy.

Current meds: Lithium started one month ago. Since then their condition has significantly stabilized and they are considering returning to school.

Issues to address: Challenges related to returning to a stressful situation as a new college student and new treatment for bipolar, since they will be away from home and responsible for treatment regimen.

**18. 52-year-old male, smoker, with chronic obstructive pulmonary disease, obesity**

Description: 52 year old who identifies as male, married for 5 years. Has a 40-pack-year smoking history, started when he was 19.

PMH: Diagnosis with chronic obstructive pulmonary disease at age 48, has had three hospitalizations in the past year for exacerbation.

SH: Husband is supportive but does not smoke and would like for him to stop. Patient has been obese since childhood and considers that his weight would be higher if he didn't smoke. He has reduced his smoking from a pack per day to three packs per week. Recent hospitalizations have been a "wake up call"; he has new motivation to address his smoking.

Current meds: albuterol inhaler prn; salmeterol 50mcg inhaled twice daily.

PE: Current BMI 28; 5'9", 190 lbs. Vital Signs within normal limits. Was able to walk to clinic without stopping, but with noticeable shortness of breath. Slight bibasilar wheezing.

Issues to address: Continued reduction in smoking, consideration of the patient's concerns about weight gain, active involvement of spouse.